APPENDIX E – UNCERTAINTY EVALUATION FOR PUBLIC RECEPTORS (INTERMEDIATE- AND LONG-TERM EXPOSURES)

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	2.03E-04	7.17E+01	1.45E-03	1.50E+01	1.03E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	1.66E-04	7.17E+01	1.19E-03	1.50E+01	1.26E+04
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	3.89E-04	7.17E+01	2.79E-03	1.50E+01	5.38E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	2.13E-05	7.17E+01	1.53E-04	1.50E+01	9.83E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	5.04E-05	7.17E+01	3.61E-04	1.50E+01	4.15E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	7.95E-05	7.17E+01	5.70E-04	1.50E+01	2.63E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	2.03E-04	1.87E+02	3.78E-03	1.50E+01	3.96E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	1.66E-04	1.87E+02	3.09E-03	1.50E+01	4.85E+03
Typical	Aerial	Forested	Plane	Berry - child	1.00E-01	3.89E-04	1.87E+02	7.25E-03	1.50E+01	2.07E+03
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E-01	2.13E-05	1.87E+02	3.97E-04	1.50E+01	3.78E+04
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	5.04E-05	1.87E+02	9.41E-04	1.50E+01	1.59E+04
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	7.95E-05	1.87E+02	1.48E-03	1.50E+01	1.01E+04
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	1.50E+01	1.78E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	1.50E+01	2.23E+03
Max	Aerial	Forested	Plane	Berry - child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	1.50E+01	1.02E+03
Max	Aerial	Forested	Helicopter	Berry - child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	1.50E+01	1.99E+04
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	1.50E+01	7.97E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	1.50E+01	5.05E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	2.03E-04	7.17E+01	1.45E-03	1.50E+01	1.03E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	1.66E-04	7.17E+01	1.19E-03	1.50E+01	1.26E+04
Typical	Aerial	Forested	Plane	Berry - adult	1.00E-01	3.89E-04	7.17E+01	2.79E-03	1.50E+01	5.38E+03
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	2.13E-05	7.17E+01	1.53E-04	1.50E+01	9.83E+04
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	5.04E-05	7.17E+01	3.61E-04	1.50E+01	4.15E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	7.95E-05	7.17E+01	5.70E-04	1.50E+01	2.63E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Max	Aerial	Forested	Plane	Berry - adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	2.03E-04	7.17E+01	1.45E-03	1.50E+01	1.03E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	1.66E-04	7.17E+01	1.19E-03	1.50E+01	1.26E+04
Typical	Aerial	Forested	Plane	Angler	1.00E-01	3.89E-04	7.17E+01	2.79E-03	1.50E+01	5.38E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E-01	2.13E-05	7.17E+01	1.53E-04	1.50E+01	9.83E+04
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	5.04E-05	7.17E+01	3.61E-04	1.50E+01	4.15E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	7.95E-05	7.17E+01	5.70E-04	1.50E+01	2.63E+04
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Max	Aerial	Forested	Plane	Angler	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Max	Aerial	Forested	Helicopter	Angler	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	2.03E-04	1.87E+02	3.78E-03	1.50E+01	3.96E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	1.66E-04	1.87E+02	3.09E-03	1.50E+01	4.85E+03
Typical	Aerial	Forested	Plane	Res-child	1.00E-01	3.89E-04	1.87E+02	7.25E-03	1.50E+01	2.07E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-01	2.13E-05	1.87E+02	3.97E-04	1.50E+01	3.78E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	5.04E-05	1.87E+02	9.41E-04	1.50E+01	1.59E+04
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	7.95E-05	1.87E+02	1.48E-03	1.50E+01	1.01E+04
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	1.50E+01	1.78E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	1.50E+01	2.23E+03
Max	Aerial	Forested	Plane	Res-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	1.50E+01	1.02E+03
Max	Aerial	Forested	Helicopter	Res-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	1.50E+01	1.99E+04
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	1.50E+01	7.97E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	1.50E+01	5.05E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	2.03E-04	7.17E+01	1.45E-03	1.50E+01	1.03E+04
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	1.66E-04	7.17E+01	1.19E-03	1.50E+01	1.26E+04
Typical	Aerial	Forested	Plane	Res-adult	1.00E-01	3.89E-04	7.17E+01	2.79E-03	1.50E+01	5.38E+03
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-01	2.13E-05	7.17E+01	1.53E-04	1.50E+01	9.83E+04
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	5.04E-05	7.17E+01	3.61E-04	1.50E+01	4.15E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	7.95E-05	7.17E+01	5.70E-04	1.50E+01	2.63E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Max	Aerial	Forested	Plane	Res-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	2.03E-04	1.87E+02	3.78E-03	1.50E+01	3.96E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	1.66E-04	1.87E+02	3.09E-03	1.50E+01	4.85E+03
Typical	Aerial	Forested	Plane	N.A.-child	1.00E-01	3.89E-04	1.87E+02	7.25E-03	1.50E+01	2.07E+03
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	2.13E-05	1.87E+02	3.97E-04	1.50E+01	3.78E+04
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	5.04E-05	1.87E+02	9.41E-04	1.50E+01	1.59E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	7.95E-05	1.87E+02	1.48E-03	1.50E+01	1.01E+04
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	1.50E+01	1.78E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	1.50E+01	2.23E+03
Max	Aerial	Forested	Plane	N.A.-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	1.50E+01	1.02E+03
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	1.50E+01	1.99E+04
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	1.50E+01	7.97E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	1.50E+01	5.05E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	2.03E-04	7.17E+01	1.45E-03	1.50E+01	1.03E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	1.66E-04	7.17E+01	1.19E-03	1.50E+01	1.26E+04
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E-01	3.89E-04	7.17E+01	2.79E-03	1.50E+01	5.38E+03
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	2.13E-05	7.17E+01	1.53E-04	1.50E+01	9.83E+04
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	5.04E-05	7.17E+01	3.61E-04	1.50E+01	4.15E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	7.95E-05	7.17E+01	5.70E-04	1.50E+01	2.63E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Max	Aerial	Forested	Plane	N.A.-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	2.03E-04	5.07E-05	2.01E+01	1.02E-04	1.50E+01	1.47E+05
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	1.66E-04	4.14E-05	2.01E+01	8.34E-05	1.50E+01	1.80E+05
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	3.89E-04	9.72E-05	2.01E+01	1.96E-04	1.50E+01	7.67E+04
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	2.13E-05	5.32E-06	2.01E+01	1.07E-05	1.50E+01	1.40E+06
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	5.04E-05	1.26E-05	2.01E+01	2.54E-05	1.50E+01	5.92E+05
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	7.95E-05	1.99E-05	2.01E+01	4.00E-05	1.50E+01	3.75E+05
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	1.50E+01	6.62E+04
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	1.50E+01	8.27E+04
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	1.50E+01	3.78E+04
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	1.50E+01	7.39E+05
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	1.50E+01	2.96E+05
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	1.50E+01	1.87E+05
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	2.03E-04	5.07E-05	6.05E+01	3.07E-04	1.50E+01	4.89E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	1.66E-04	4.14E-05	6.05E+01	2.51E-04	1.50E+01	5.98E+04
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	1.00E-01	3.89E-04	9.72E-05	6.05E+01	5.88E-04	1.50E+01	2.55E+04
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	2.13E-05	5.32E-06	6.05E+01	3.22E-05	1.50E+01	4.66E+05
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	5.04E-05	1.26E-05	6.05E+01	7.62E-05	1.50E+01	1.97E+05
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	7.95E-05	1.99E-05	6.05E+01	1.20E-04	1.50E+01	1.25E+05
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	6.05E+01	6.81E-04	1.50E+01	2.20E+04
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	6.05E+01	5.45E-04	1.50E+01	2.75E+04
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	1.00E-01	7.90E-04	1.97E-04	6.05E+01	1.19E-03	1.50E+01	1.26E+04
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	4.03E-05	1.01E-05	6.05E+01	6.10E-05	1.50E+01	2.46E+05
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	6.05E+01	1.52E-04	1.50E+01	9.84E+04
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	6.05E+01	2.41E-04	1.50E+01	6.24E+04
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	2.03E-04	5.07E-05	3.46E+01	1.75E-04	1.50E+01	8.56E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	1.66E-04	4.14E-05	3.46E+01	1.43E-04	1.50E+01	1.05E+05
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.00E-01	3.89E-04	9.72E-05	3.46E+01	3.36E-04	1.50E+01	4.46E+04
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	2.13E-05	5.32E-06	3.46E+01	1.84E-05	1.50E+01	8.15E+05
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	5.04E-05	1.26E-05	3.46E+01	4.36E-05	1.50E+01	3.44E+05
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	7.95E-05	1.99E-05	3.46E+01	6.88E-05	1.50E+01	2.18E+05
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	3.46E+01	3.89E-04	1.50E+01	3.85E+04
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	3.46E+01	3.12E-04	1.50E+01	4.81E+04
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.00E-01	7.90E-04	1.97E-04	3.46E+01	6.83E-04	1.50E+01	2.20E+04
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	4.03E-05	1.01E-05	3.46E+01	3.49E-05	1.50E+01	4.30E+05
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	3.46E+01	8.72E-05	1.50E+01	1.72E+05
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	3.46E+01	1.38E-04	1.50E+01	1.09E+05

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	2.03E-04	5.07E-05	2.01E+01	1.02E-04	1.50E+01	1.47E+05
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	1.66E-04	4.14E-05	2.01E+01	8.34E-05	1.50E+01	1.80E+05
Typical	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	3.89E-04	9.72E-05	2.01E+01	1.96E-04	1.50E+01	7.67E+04
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	2.13E-05	5.32E-06	2.01E+01	1.07E-05	1.50E+01	1.40E+06
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	5.04E-05	1.26E-05	2.01E+01	2.54E-05	1.50E+01	5.92E+05
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	7.95E-05	1.99E-05	2.01E+01	4.00E-05	1.50E+01	3.75E+05
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	1.50E+01	6.62E+04
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	1.50E+01	8.27E+04
Max	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	1.50E+01	3.78E+04
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	1.50E+01	7.39E+05
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	1.50E+01	2.96E+05
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	1.50E+01	1.87E+05
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	2.03E-04	2.03E-06	5.94E+03	1.20E-03	1.50E+01	1.25E+04
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	1.66E-04	1.66E-06	5.94E+03	9.85E-04	1.50E+01	1.52E+04
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	3.89E-04	3.89E-06	5.94E+03	2.31E-03	1.50E+01	6.50E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.00E-01	2.13E-05	2.13E-07	5.94E+03	1.26E-04	1.50E+01	1.19E+05
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	5.04E-05	5.04E-07	5.94E+03	2.99E-04	1.50E+01	5.01E+04
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	7.95E-05	7.95E-07	5.94E+03	4.72E-04	1.50E+01	3.18E+04
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	4.50E-04	4.50E-06	5.94E+03	2.67E-03	1.50E+01	5.61E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	3.61E-04	3.61E-06	5.94E+03	2.14E-03	1.50E+01	7.00E+03
Max	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	7.90E-04	7.90E-06	5.94E+03	4.69E-03	1.50E+01	3.20E+03
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.00E-01	4.03E-05	4.03E-07	5.94E+03	2.40E-04	1.50E+01	6.26E+04
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	1.01E-04	1.01E-06	5.94E+03	5.99E-04	1.50E+01	2.51E+04
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	1.59E-04	1.59E-06	5.94E+03	9.45E-04	1.50E+01	1.59E+04
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	2.03E-04	2.03E-06	3.40E+03	6.88E-04	1.50E+01	2.18E+04
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	1.66E-04	1.66E-06	3.40E+03	5.63E-04	1.50E+01	2.66E+04
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	1.00E-01	3.89E-04	3.89E-06	3.40E+03	1.32E-03	1.50E+01	1.14E+04
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	2.13E-05	2.13E-07	3.40E+03	7.23E-05	1.50E+01	2.08E+05
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	5.04E-05	5.04E-07	3.40E+03	1.71E-04	1.50E+01	8.76E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	7.95E-05	7.95E-07	3.40E+03	2.70E-04	1.50E+01	5.55E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	4.50E-04	4.50E-06	3.40E+03	1.53E-03	1.50E+01	9.81E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	3.61E-04	3.61E-06	3.40E+03	1.22E-03	1.50E+01	1.22E+04
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	1.00E-01	7.90E-04	7.90E-06	3.40E+03	2.68E-03	1.50E+01	5.59E+03
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	4.03E-05	4.03E-07	3.40E+03	1.37E-04	1.50E+01	1.10E+05
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	1.01E-04	1.01E-06	3.40E+03	3.42E-04	1.50E+01	4.38E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	1.59E-04	1.59E-06	3.40E+03	5.40E-04	1.50E+01	2.78E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	2.03E-04	5.07E-05	7.26E+01	3.68E-04	1.50E+01	4.08E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	1.66E-04	4.14E-05	7.26E+01	3.01E-04	1.50E+01	4.99E+04
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.00E-01	3.89E-04	9.72E-05	7.26E+01	7.05E-04	1.50E+01	2.13E+04
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	2.13E-05	5.32E-06	7.26E+01	3.86E-05	1.50E+01	3.88E+05
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	5.04E-05	1.26E-05	7.26E+01	9.15E-05	1.50E+01	1.64E+05
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	7.95E-05	1.99E-05	7.26E+01	1.44E-04	1.50E+01	1.04E+05
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	7.26E+01	8.17E-04	1.50E+01	1.84E+04
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	7.26E+01	6.55E-04	1.50E+01	2.29E+04
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.00E-01	7.90E-04	1.97E-04	7.26E+01	1.43E-03	1.50E+01	1.05E+04
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	4.03E-05	1.01E-05	7.26E+01	7.32E-05	1.50E+01	2.05E+05
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	7.26E+01	1.83E-04	1.50E+01	8.20E+04
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	7.26E+01	2.89E-04	1.50E+01	5.20E+04
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	2.03E-04	5.07E-05	4.15E+01	2.10E-04	1.50E+01	7.13E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	1.66E-04	4.14E-05	4.15E+01	1.72E-04	1.50E+01	8.72E+04
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	3.89E-04	9.72E-05	4.15E+01	4.03E-04	1.50E+01	3.72E+04
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	2.13E-05	5.32E-06	4.15E+01	2.21E-05	1.50E+01	6.79E+05
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	5.04E-05	1.26E-05	4.15E+01	5.23E-05	1.50E+01	2.87E+05
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	7.95E-05	1.99E-05	4.15E+01	8.25E-05	1.50E+01	1.82E+05
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	4.15E+01	4.67E-04	1.50E+01	3.21E+04
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	4.15E+01	3.74E-04	1.50E+01	4.01E+04
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	7.90E-04	1.97E-04	4.15E+01	8.19E-04	1.50E+01	1.83E+04
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	4.03E-05	1.01E-05	4.15E+01	4.18E-05	1.50E+01	3.58E+05
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	4.15E+01	1.05E-04	1.50E+01	1.43E+05
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	4.15E+01	1.65E-04	1.50E+01	9.09E+04

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	4.97E-02	1.00E-03	4.40E+02	6.41E-07	1.50E+01	2.34E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	4.92E-02	1.00E-03	4.40E+02	6.36E-07	1.50E+01	2.36E+07
Typical	Aerial	Forested	Plane	Swimmer-child	2.93E-05	5.21E-02	1.00E-03	4.40E+02	6.73E-07	1.50E+01	2.23E+07
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	4.74E-02	1.00E-03	4.40E+02	6.12E-07	1.50E+01	2.45E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	4.78E-02	1.00E-03	4.40E+02	6.17E-07	1.50E+01	2.43E+07
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	4.82E-02	1.00E-03	4.40E+02	6.22E-07	1.50E+01	2.41E+07
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	9.98E-02	1.00E-03	4.40E+02	1.29E-06	1.50E+01	1.16E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	9.88E-02	1.00E-03	4.40E+02	1.28E-06	1.50E+01	1.18E+07
Max	Aerial	Forested	Plane	Swimmer-child	2.93E-05	1.04E-01	1.00E-03	4.40E+02	1.35E-06	1.50E+01	1.11E+07
Max	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	9.48E-02	1.00E-03	4.40E+02	1.22E-06	1.50E+01	1.23E+07
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	9.56E-02	1.00E-03	4.40E+02	1.23E-06	1.50E+01	1.22E+07
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	1.15E-01	1.00E-03	4.40E+02	1.49E-06	1.50E+01	1.01E+07
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	4.97E-02	1.00E-03	2.26E+02	3.30E-07	1.50E+01	4.55E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	4.92E-02	1.00E-03	2.26E+02	3.27E-07	1.50E+01	4.59E+07
Typical	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	5.21E-02	1.00E-03	2.26E+02	3.46E-07	1.50E+01	4.33E+07
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	4.74E-02	1.00E-03	2.26E+02	3.15E-07	1.50E+01	4.76E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	4.78E-02	1.00E-03	2.26E+02	3.17E-07	1.50E+01	4.73E+07
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	4.82E-02	1.00E-03	2.26E+02	3.20E-07	1.50E+01	4.68E+07
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	9.98E-02	1.00E-03	2.26E+02	6.63E-07	1.50E+01	2.26E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	9.88E-02	1.00E-03	2.26E+02	6.56E-07	1.50E+01	2.29E+07
Max	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	1.04E-01	1.00E-03	2.26E+02	6.93E-07	1.50E+01	2.16E+07
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	9.48E-02	1.00E-03	2.26E+02	6.30E-07	1.50E+01	2.38E+07
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	9.56E-02	1.00E-03	2.26E+02	6.35E-07	1.50E+01	2.36E+07
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	1.15E-01	1.00E-03	2.26E+02	7.65E-07	1.50E+01	1.96E+07
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	4.97E-02	1.00E-03	1.14E+03	1.67E-06	1.50E+01	9.00E+06
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	4.92E-02	1.00E-03	1.14E+03	1.65E-06	1.50E+01	9.08E+06
Typical	Aerial	Forested	Plane	N.American-child	2.93E-05	5.21E-02	1.00E-03	1.14E+03	1.75E-06	1.50E+01	8.58E+06
Typical	Aerial	Forested	Helicopter	N.American-child	2.93E-05	4.74E-02	1.00E-03	1.14E+03	1.59E-06	1.50E+01	9.43E+06
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	4.78E-02	1.00E-03	1.14E+03	1.60E-06	1.50E+01	9.35E+06
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	4.82E-02	1.00E-03	1.14E+03	1.62E-06	1.50E+01	9.27E+06
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	9.98E-02	1.00E-03	1.14E+03	3.35E-06	1.50E+01	4.48E+06
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	9.88E-02	1.00E-03	1.14E+03	3.32E-06	1.50E+01	4.52E+06
Max	Aerial	Forested	Plane	N.American-child	2.93E-05	1.04E-01	1.00E-03	1.14E+03	3.50E-06	1.50E+01	4.28E+06
Max	Aerial	Forested	Helicopter	N.American-child	2.93E-05	9.48E-02	1.00E-03	1.14E+03	3.18E-06	1.50E+01	4.72E+06
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	9.56E-02	1.00E-03	1.14E+03	3.21E-06	1.50E+01	4.68E+06
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	1.15E-01	1.00E-03	1.14E+03	3.87E-06	1.50E+01	3.88E+06

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	4.97E-02	1.00E-03	5.89E+02	8.58E-07	1.50E+01	1.75E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	4.92E-02	1.00E-03	5.89E+02	8.50E-07	1.50E+01	1.76E+07
Typical	Aerial	Forested	Plane	N.American-adult	2.93E-05	5.21E-02	1.00E-03	5.89E+02	9.00E-07	1.50E+01	1.67E+07
Typical	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	4.74E-02	1.00E-03	5.89E+02	8.19E-07	1.50E+01	1.83E+07
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	4.78E-02	1.00E-03	5.89E+02	8.25E-07	1.50E+01	1.82E+07
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	4.82E-02	1.00E-03	5.89E+02	8.32E-07	1.50E+01	1.80E+07
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	9.98E-02	1.00E-03	5.89E+02	1.72E-06	1.50E+01	8.70E+06
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	9.88E-02	1.00E-03	5.89E+02	1.71E-06	1.50E+01	8.79E+06
Max	Aerial	Forested	Plane	N.American-adult	2.93E-05	1.04E-01	1.00E-03	5.89E+02	1.80E-06	1.50E+01	8.32E+06
Max	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	9.48E-02	1.00E-03	5.89E+02	1.64E-06	1.50E+01	9.16E+06
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	9.56E-02	1.00E-03	5.89E+02	1.65E-06	1.50E+01	9.09E+06
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	1.15E-01	1.00E-03	5.89E+02	1.99E-06	1.50E+01	7.54E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	4.97E-02	8.00E-03	3.97E-04	1.50E+01	3.77E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	4.92E-02	8.00E-03	3.94E-04	1.50E+01	3.81E+04
Typical	Aerial	Forested	Plane	Swimmer-child	5.21E-02	8.00E-03	4.17E-04	1.50E+01	3.60E+04
Typical	Aerial	Forested	Helicopter	Swimmer-child	4.74E-02	8.00E-03	3.79E-04	1.50E+01	3.96E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-child	4.78E-02	8.00E-03	3.82E-04	1.50E+01	3.92E+04
Typical	Ground	Not applicable	High Boom	Swimmer-child	4.82E-02	8.00E-03	3.86E-04	1.50E+01	3.89E+04
Max	Aerial	Non-Forested	Plane	Swimmer-child	9.98E-02	8.00E-03	7.99E-04	1.50E+01	1.88E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	9.88E-02	8.00E-03	7.90E-04	1.50E+01	1.90E+04
Max	Aerial	Forested	Plane	Swimmer-child	1.04E-01	8.00E-03	8.35E-04	1.50E+01	1.80E+04
Max	Aerial	Forested	Helicopter	Swimmer-child	9.48E-02	8.00E-03	7.58E-04	1.50E+01	1.98E+04
Max	Ground	Not applicable	Low Boom	Swimmer-child	9.56E-02	8.00E-03	7.65E-04	1.50E+01	1.96E+04
Max	Ground	Not applicable	High Boom	Swimmer-child	1.15E-01	8.00E-03	9.21E-04	1.50E+01	1.63E+04
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	4.97E-02	8.93E-04	4.44E-05	1.50E+01	3.38E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	4.92E-02	8.93E-04	4.40E-05	1.50E+01	3.41E+05
Typical	Aerial	Forested	Plane	Swimmer-adult	5.21E-02	8.93E-04	4.65E-05	1.50E+01	3.22E+05
Typical	Aerial	Forested	Helicopter	Swimmer-adult	4.74E-02	8.93E-04	4.23E-05	1.50E+01	3.54E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	4.78E-02	8.93E-04	4.27E-05	1.50E+01	3.51E+05
Typical	Ground	Not applicable	High Boom	Swimmer-adult	4.82E-02	8.93E-04	4.31E-05	1.50E+01	3.48E+05
Max	Aerial	Non-Forested	Plane	Swimmer-adult	9.98E-02	8.93E-04	8.91E-05	1.50E+01	1.68E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	9.88E-02	8.93E-04	8.82E-05	1.50E+01	1.70E+05
Max	Aerial	Forested	Plane	Swimmer-adult	1.04E-01	8.93E-04	9.32E-05	1.50E+01	1.61E+05
Max	Aerial	Forested	Helicopter	Swimmer-adult	9.48E-02	8.93E-04	8.46E-05	1.50E+01	1.77E+05
Max	Ground	Not applicable	Low Boom	Swimmer-adult	9.56E-02	8.93E-04	8.54E-05	1.50E+01	1.76E+05
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.15E-01	8.93E-04	1.03E-04	1.50E+01	1.46E+05

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	4.97E-02	2.52E-02	1.25E-03	5.00E-03	25%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	4.92E-02	2.52E-02	1.24E-03	5.00E-03	25%
Typical	Aerial	Forested	Plane	Hiker/Hunter	5.21E-02	2.52E-02	1.31E-03	5.00E-03	26%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	4.74E-02	2.52E-02	1.19E-03	5.00E-03	24%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	4.78E-02	2.52E-02	1.20E-03	5.00E-03	24%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	4.82E-02	2.52E-02	1.21E-03	5.00E-03	24%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	9.98E-02	2.52E-02	2.51E-03	5.00E-03	50%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	9.88E-02	2.52E-02	2.49E-03	5.00E-03	50%
Max	Aerial	Forested	Plane	Hiker/Hunter	1.04E-01	2.52E-02	2.62E-03	5.00E-03	52%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	9.48E-02	2.52E-02	2.38E-03	5.00E-03	48%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	9.56E-02	2.52E-02	2.40E-03	5.00E-03	48%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.15E-01	2.52E-02	2.90E-03	5.00E-03	58%
Typical	Aerial	Non-Forested	Plane	Berry - child	4.97E-02	6.67E-02	3.31E-03	5.00E-03	66%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	4.92E-02	6.67E-02	3.28E-03	5.00E-03	66%
Typical	Aerial	Forested	Plane	Berry - child	5.21E-02	6.67E-02	3.47E-03	5.00E-03	69%
Typical	Aerial	Forested	Helicopter	Berry - child	4.74E-02	6.67E-02	3.16E-03	5.00E-03	63%
Typical	Ground	Not applicable	Low Boom	Berry - child	4.78E-02	6.67E-02	3.19E-03	5.00E-03	64%
Typical	Ground	Not applicable	High Boom	Berry - child	4.82E-02	6.67E-02	3.21E-03	5.00E-03	64%
Max	Aerial	Non-Forested	Plane	Berry - child	9.98E-02	6.67E-02	6.65E-03	5.00E-03	**133%**
Max	Aerial	Non-Forested	Helicopter	Berry - child	9.88E-02	6.67E-02	6.59E-03	5.00E-03	**132%**
Max	Aerial	Forested	Plane	Berry - child	1.04E-01	6.67E-02	6.96E-03	5.00E-03	**139%**
Max	Aerial	Forested	Helicopter	Berry - child	9.48E-02	6.67E-02	6.32E-03	5.00E-03	**126%**
Max	Ground	Not applicable	Low Boom	Berry - child	9.56E-02	6.67E-02	6.37E-03	5.00E-03	**127%**
Max	Ground	Not applicable	High Boom	Berry - child	1.15E-01	6.67E-02	7.68E-03	5.00E-03	**154%**
Typical	Aerial	Non-Forested	Plane	Berry - adult	4.97E-02	2.52E-02	1.25E-03	5.00E-03	25%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	4.92E-02	2.52E-02	1.24E-03	5.00E-03	25%
Typical	Aerial	Forested	Plane	Berry - adult	5.21E-02	2.52E-02	1.31E-03	5.00E-03	26%
Typical	Aerial	Forested	Helicopter	Berry - adult	4.74E-02	2.52E-02	1.19E-03	5.00E-03	24%
Typical	Ground	Not applicable	Low Boom	Berry - adult	4.78E-02	2.52E-02	1.20E-03	5.00E-03	24%
Typical	Ground	Not applicable	High Boom	Berry - adult	4.82E-02	2.52E-02	1.21E-03	5.00E-03	24%
Max	Aerial	Non-Forested	Plane	Berry - adult	9.98E-02	2.52E-02	2.51E-03	5.00E-03	50%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	9.88E-02	2.52E-02	2.49E-03	5.00E-03	50%
Max	Aerial	Forested	Plane	Berry - adult	1.04E-01	2.52E-02	2.62E-03	5.00E-03	52%
Max	Aerial	Forested	Helicopter	Berry - adult	9.48E-02	2.52E-02	2.38E-03	5.00E-03	48%
Max	Ground	Not applicable	Low Boom	Berry - adult	9.56E-02	2.52E-02	2.40E-03	5.00E-03	48%
Max	Ground	Not applicable	High Boom	Berry - adult	1.15E-01	2.52E-02	2.90E-03	5.00E-03	58%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	4.97E-02	2.52E-02	1.25E-03	5.00E-03	25%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.92E-02	2.52E-02	1.24E-03	5.00E-03	25%
Typical	Aerial	Forested	Plane	Angler	5.21E-02	2.52E-02	1.31E-03	5.00E-03	26%
Typical	Aerial	Forested	Helicopter	Angler	4.74E-02	2.52E-02	1.19E-03	5.00E-03	24%
Typical	Ground	Not applicable	Low Boom	Angler	4.78E-02	2.52E-02	1.20E-03	5.00E-03	24%
Typical	Ground	Not applicable	High Boom	Angler	4.82E-02	2.52E-02	1.21E-03	5.00E-03	24%
Max	Aerial	Non-Forested	Plane	Angler	9.98E-02	2.52E-02	2.51E-03	5.00E-03	50%
Max	Aerial	Non-Forested	Helicopter	Angler	9.88E-02	2.52E-02	2.49E-03	5.00E-03	50%
Max	Aerial	Forested	Plane	Angler	1.04E-01	2.52E-02	2.62E-03	5.00E-03	52%
Max	Aerial	Forested	Helicopter	Angler	9.48E-02	2.52E-02	2.38E-03	5.00E-03	48%
Max	Ground	Not applicable	Low Boom	Angler	9.56E-02	2.52E-02	2.40E-03	5.00E-03	48%
Max	Ground	Not applicable	High Boom	Angler	1.15E-01	2.52E-02	2.90E-03	5.00E-03	58%
Typical	Aerial	Non-Forested	Plane	N.American - child	4.97E-02	3.33E-02	1.66E-03	5.00E-03	33%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.92E-02	3.33E-02	1.64E-03	5.00E-03	33%
Typical	Aerial	Forested	Plane	N.American - child	5.21E-02	3.33E-02	1.74E-03	5.00E-03	35%
Typical	Aerial	Forested	Helicopter	N.American - child	4.74E-02	3.33E-02	1.58E-03	5.00E-03	32%
Typical	Ground	Not applicable	Low Boom	N.American - child	4.78E-02	3.33E-02	1.59E-03	5.00E-03	32%
Typical	Ground	Not applicable	High Boom	N.American - child	4.82E-02	3.33E-02	1.61E-03	5.00E-03	32%
Max	Aerial	Non-Forested	Plane	N.American - child	9.98E-02	3.33E-02	3.33E-03	5.00E-03	67%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.88E-02	3.33E-02	3.29E-03	5.00E-03	66%
Max	Aerial	Forested	Plane	N.American - child	1.04E-01	3.33E-02	3.48E-03	5.00E-03	70%
Max	Aerial	Forested	Helicopter	N.American - child	9.48E-02	3.33E-02	3.16E-03	5.00E-03	63%
Max	Ground	Not applicable	Low Boom	N.American - child	9.56E-02	3.33E-02	3.19E-03	5.00E-03	64%
Max	Ground	Not applicable	High Boom	N.American - child	1.15E-01	3.33E-02	3.84E-03	5.00E-03	77%
Typical	Aerial	Non-Forested	Plane	N.American - adult	4.97E-02	1.26E-02	6.25E-04	5.00E-03	12%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.92E-02	1.26E-02	6.19E-04	5.00E-03	12%
Typical	Aerial	Forested	Plane	N.American - adult	5.21E-02	1.26E-02	6.56E-04	5.00E-03	13%
Typical	Aerial	Forested	Helicopter	N.American - adult	4.74E-02	1.26E-02	5.96E-04	5.00E-03	12%
Typical	Ground	Not applicable	Low Boom	N.American - adult	4.78E-02	1.26E-02	6.01E-04	5.00E-03	12%
Typical	Ground	Not applicable	High Boom	N.American - adult	4.82E-02	1.26E-02	6.06E-04	5.00E-03	12%
Max	Aerial	Non-Forested	Plane	N.American - adult	9.98E-02	1.26E-02	1.26E-03	5.00E-03	25%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.88E-02	1.26E-02	1.24E-03	5.00E-03	25%
Max	Aerial	Forested	Plane	N.American - adult	1.04E-01	1.26E-02	1.31E-03	5.00E-03	26%
Max	Aerial	Forested	Helicopter	N.American - adult	9.48E-02	1.26E-02	1.19E-03	5.00E-03	24%
Max	Ground	Not applicable	Low Boom	N.American - adult	9.56E-02	1.26E-02	1.20E-03	5.00E-03	24%
Max	Ground	Not applicable	High Boom	N.American - adult	1.15E-01	1.26E-02	1.45E-03	5.00E-03	29%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Fish
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	4.97E-02	1.00E+00	1.00E-06	7.67E+02	3.81E-05	5.00E-03	0.76%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.92E-02	1.00E+00	1.00E-06	7.67E+02	3.78E-05	5.00E-03	0.76%
Typical	Aerial	Forested	Plane	Angler	5.21E-02	1.00E+00	1.00E-06	7.67E+02	4.00E-05	5.00E-03	0.80%
Typical	Aerial	Forested	Helicopter	Angler	4.74E-02	1.00E+00	1.00E-06	7.67E+02	3.64E-05	5.00E-03	0.73%
Typical	Ground	Not applicable	Low Boom	Angler	4.78E-02	1.00E+00	1.00E-06	7.67E+02	3.67E-05	5.00E-03	0.73%
Typical	Ground	Not applicable	High Boom	Angler	4.82E-02	1.00E+00	1.00E-06	7.67E+02	3.70E-05	5.00E-03	0.74%
Max	Aerial	Non-Forested	Plane	Angler	9.98E-02	1.00E+00	1.00E-06	7.67E+02	7.66E-05	5.00E-03	1.5%
Max	Aerial	Non-Forested	Helicopter	Angler	9.88E-02	1.00E+00	1.00E-06	7.67E+02	7.58E-05	5.00E-03	1.5%
Max	Aerial	Forested	Plane	Angler	1.04E-01	1.00E+00	1.00E-06	7.67E+02	8.01E-05	5.00E-03	1.6%
Max	Aerial	Forested	Helicopter	Angler	9.48E-02	1.00E+00	1.00E-06	7.67E+02	7.27E-05	5.00E-03	1.5%
Max	Ground	Not applicable	Low Boom	Angler	9.56E-02	1.00E+00	1.00E-06	7.67E+02	7.33E-05	5.00E-03	1.5%
Max	Ground	Not applicable	High Boom	Angler	1.15E-01	1.00E+00	1.00E-06	7.67E+02	8.84E-05	5.00E-03	1.8%
Typical	Aerial	Non-Forested	Plane	N.American - child	4.97E-02	1.00E+00	1.00E-06	1.11E+04	5.53E-04	5.00E-03	11%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.92E-02	1.00E+00	1.00E-06	1.11E+04	5.48E-04	5.00E-03	11%
Typical	Aerial	Forested	Plane	N.American - child	5.21E-02	1.00E+00	1.00E-06	1.11E+04	5.80E-04	5.00E-03	12%
Typical	Aerial	Forested	Helicopter	N.American - child	4.74E-02	1.00E+00	1.00E-06	1.11E+04	5.28E-04	5.00E-03	11%
Typical	Ground	Not applicable	Low Boom	N.American - child	4.78E-02	1.00E+00	1.00E-06	1.11E+04	5.32E-04	5.00E-03	11%
Typical	Ground	Not applicable	High Boom	N.American - child	4.82E-02	1.00E+00	1.00E-06	1.11E+04	5.37E-04	5.00E-03	11%
Max	Aerial	Non-Forested	Plane	N.American - child	9.98E-02	1.00E+00	1.00E-06	1.11E+04	1.11E-03	5.00E-03	22%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.88E-02	1.00E+00	1.00E-06	1.11E+04	1.10E-03	5.00E-03	22%
Max	Aerial	Forested	Plane	N.American - child	1.04E-01	1.00E+00	1.00E-06	1.11E+04	1.16E-03	5.00E-03	23%
Max	Aerial	Forested	Helicopter	N.American - child	9.48E-02	1.00E+00	1.00E-06	1.11E+04	1.06E-03	5.00E-03	21%
Max	Ground	Not applicable	Low Boom	N.American - child	9.56E-02	1.00E+00	1.00E-06	1.11E+04	1.06E-03	5.00E-03	21%
Max	Ground	Not applicable	High Boom	N.American - child	1.15E-01	1.00E+00	1.00E-06	1.11E+04	1.28E-03	5.00E-03	26%
Typical	Aerial	Non-Forested	Plane	N.American - adult	4.97E-02	1.00E+00	1.00E-06	1.11E+04	5.53E-04	5.00E-03	11%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.92E-02	1.00E+00	1.00E-06	1.11E+04	5.48E-04	5.00E-03	11%
Typical	Aerial	Forested	Plane	N.American - adult	5.21E-02	1.00E+00	1.00E-06	1.11E+04	5.80E-04	5.00E-03	12%
Typical	Aerial	Forested	Helicopter	N.American - adult	4.74E-02	1.00E+00	1.00E-06	1.11E+04	5.28E-04	5.00E-03	11%
Typical	Ground	Not applicable	Low Boom	N.American - adult	4.78E-02	1.00E+00	1.00E-06	1.11E+04	5.32E-04	5.00E-03	11%
Typical	Ground	Not applicable	High Boom	N.American - adult	4.82E-02	1.00E+00	1.00E-06	1.11E+04	5.37E-04	5.00E-03	11%
Max	Aerial	Non-Forested	Plane	N.American - adult	9.98E-02	1.00E+00	1.00E-06	1.11E+04	1.11E-03	5.00E-03	22%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.88E-02	1.00E+00	1.00E-06	1.11E+04	1.10E-03	5.00E-03	22%
Max	Aerial	Forested	Plane	N.American - adult	1.04E-01	1.00E+00	1.00E-06	1.11E+04	1.16E-03	5.00E-03	23%
Max	Aerial	Forested	Helicopter	N.American - adult	9.48E-02	1.00E+00	1.00E-06	1.11E+04	1.06E-03	5.00E-03	21%
Max	Ground	Not applicable	Low Boom	N.American - adult	9.56E-02	1.00E+00	1.00E-06	1.11E+04	1.06E-03	5.00E-03	21%
Max	Ground	Not applicable	High Boom	N.American - adult	1.15E-01	1.00E+00	1.00E-06	1.11E+04	1.28E-03	5.00E-03	26%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	2.03E-04	4.00E+00	8.11E-04	5.00E-03	16.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.66E-04	4.00E+00	6.63E-04	5.00E-03	13.3%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	3.89E-04	4.00E+00	1.55E-03	5.00E-03	31.1%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	2.13E-05	4.00E+00	8.51E-05	5.00E-03	1.70%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	5.00E-03	4.03%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	7.95E-05	4.00E+00	3.18E-04	5.00E-03	6.4%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	5.00E-03	63%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	5.00E-03	3.23%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	2.03E-04	4.03E+00	8.16E-04	5.00E-03	16.3%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.66E-04	4.03E+00	6.67E-04	5.00E-03	13.3%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	3.89E-04	4.03E+00	1.56E-03	5.00E-03	31.3%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	5.00E-03	1.71%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	5.00E-03	4.06%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	7.95E-05	4.03E+00	3.20E-04	5.00E-03	6.4%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	5.00E-03	64%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	5.00E-03	3.25%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	2.03E-04	4.00E+00	8.11E-04	5.00E-03	16.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.66E-04	4.00E+00	6.63E-04	5.00E-03	13.3%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	3.89E-04	4.00E+00	1.55E-03	5.00E-03	31.1%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	2.13E-05	4.00E+00	8.51E-05	5.00E-03	1.70%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	5.00E-03	4.03%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	7.95E-05	4.00E+00	3.18E-04	5.00E-03	6.4%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	5.00E-03	63%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	5.00E-03	3.23%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	2.03E-04	4.03E+00	8.16E-04	5.00E-03	16.3%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.66E-04	4.03E+00	6.67E-04	5.00E-03	13.3%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	3.89E-04	4.03E+00	1.56E-03	5.00E-03	31.3%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	5.00E-03	1.71%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	5.00E-03	4.06%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	7.95E-05	4.03E+00	3.20E-04	5.00E-03	6.4%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	5.00E-03	64%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	5.00E-03	3.25%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	1.03E+04	1.47E+05	--	--	25%	--	--	2.83E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	1.26E+04	1.80E+05	--	--	25%	--	--	3.01E+00
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	5.38E+03	7.67E+04	--	--	26%	--	--	2.17E+00
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	9.83E+04	1.40E+06	--	--	24%	--	--	4.01E+00
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	4.15E+04	5.92E+05	--	--	24%	--	--	3.76E+00
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	2.63E+04	3.75E+05	--	--	24%	--	--	3.53E+00
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	4.65E+03	6.62E+04	--	--	50%	--	--	1.37E+00
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	5.80E+03	8.27E+04	--	--	50%	--	--	1.47E+00
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	2.65E+03	3.78E+04	--	--	52%	--	--	1.08E+00
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	5.19E+04	7.39E+05	--	--	48%	--	--	2.01E+00
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	2.08E+04	2.96E+05	--	--	48%	--	--	1.88E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	1.32E+04	1.87E+05	--	--	58%	--	--	1.51E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	3.96E+03	4.89E+04	--	--	66%	16.2%	--	**9.11E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	4.85E+03	5.98E+04	--	--	66%	13.3%	--	**9.88E-01**
Typical	Aerial	Forested	Plane	Berry - child	1.00E+03	2.07E+03	2.55E+04	--	--	69%	31.1%	--	**6.54E-01**
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+03	3.78E+04	4.66E+05	--	--	63%	1.70%	--	1.48E+00
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	1.59E+04	1.97E+05	--	--	64%	4.03%	--	1.34E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	1.01E+04	1.25E+05	--	--	64%	6.4%	--	1.23E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	1.78E+03	2.20E+04	--	--	**133%**	36.0%	--	**4.35E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	2.23E+03	2.75E+04	--	--	**132%**	28.9%	--	**4.78E-01**
Max	Aerial	Forested	Plane	Berry - child	1.00E+03	1.02E+03	1.26E+04	--	--	**139%**	63%	--	**3.24E-01**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+03	1.99E+04	2.46E+05	--	--	**126%**	3.23%	--	**7.41E-01**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	7.97E+03	9.84E+04	--	--	**127%**	8.1%	--	**6.71E-01**
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	5.05E+03	6.24E+04	--	--	**154%**	12.7%	--	**5.33E-01**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	1.03E+04	8.56E+04	--	--	25%	16.3%	--	1.92E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	1.26E+04	1.05E+05	--	--	25%	13.3%	--	2.13E+00
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+03	5.38E+03	4.46E+04	--	--	26%	31.3%	--	1.28E+00
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	9.83E+04	8.15E+05	--	--	24%	1.71%	--	3.74E+00
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	4.15E+04	3.44E+05	--	--	24%	4.06%	--	3.25E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	2.63E+04	2.18E+05	--	--	24%	6.4%	--	2.86E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	4.65E+03	3.85E+04	--	--	50%	36.2%	--	**9.04E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	5.80E+03	4.81E+04	--	--	50%	29.0%	--	1.02E+00
Max	Aerial	Forested	Plane	Berry - adult	1.00E+03	2.65E+03	2.20E+04	--	--	52%	64%	--	**6.31E-01**
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	5.19E+04	4.30E+05	--	--	48%	3.25%	--	1.88E+00
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	2.08E+04	1.72E+05	--	--	48%	8.1%	--	1.62E+00
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	1.32E+04	1.09E+05	--	--	58%	12.8%	--	1.26E+00

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	1.03E+04	1.47E+05	--	--	25%	--	0.76%	2.77E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	1.26E+04	1.80E+05	--	--	25%	--	0.76%	2.94E+00
Typical	Aerial	Forested	Plane	Angler	1.00E+03	5.38E+03	7.67E+04	--	--	26%	--	0.80%	2.13E+00
Typical	Aerial	Forested	Helicopter	Angler	1.00E+03	9.83E+04	1.40E+06	--	--	24%	--	0.73%	3.90E+00
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	4.15E+04	5.92E+05	--	--	24%	--	0.73%	3.66E+00
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	2.63E+04	3.75E+05	--	--	24%	--	0.74%	3.44E+00
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	4.65E+03	6.62E+04	--	--	50%	--	1.5%	1.34E+00
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	5.80E+03	8.27E+04	--	--	50%	--	1.5%	1.44E+00
Max	Aerial	Forested	Plane	Angler	1.00E+03	2.65E+03	3.78E+04	--	--	52%	--	1.6%	1.06E+00
Max	Aerial	Forested	Helicopter	Angler	1.00E+03	5.19E+04	7.39E+05	--	--	48%	--	1.5%	1.95E+00
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	2.08E+04	2.96E+05	--	--	48%	--	1.5%	1.83E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	1.32E+04	1.87E+05	--	--	58%	--	1.8%	1.47E+00
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	3.96E+03	1.25E+04	--	--	--	--	--	3.01E+00
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	4.85E+03	1.52E+04	--	--	--	--	--	3.68E+00
Typical	Aerial	Forested	Plane	Res-child	1.00E+03	2.07E+03	6.50E+03	--	--	--	--	--	1.57E+00
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+03	3.78E+04	1.19E+05	--	--	--	--	--	2.86E+01
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	1.59E+04	5.01E+04	--	--	--	--	--	1.21E+01
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	1.01E+04	3.18E+04	--	--	--	--	--	7.67E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	1.78E+03	5.61E+03	--	--	--	--	--	1.35E+00
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	2.23E+03	7.00E+03	--	--	--	--	--	1.69E+00
Max	Aerial	Forested	Plane	Res-child	1.00E+03	1.02E+03	3.20E+03	--	--	--	--	--	**7.72E-01**
Max	Aerial	Forested	Helicopter	Res-child	1.00E+03	1.99E+04	6.26E+04	--	--	--	--	--	1.51E+01
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	7.97E+03	2.51E+04	--	--	--	--	--	6.05E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	5.05E+03	1.59E+04	--	--	--	--	--	3.83E+00
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	1.03E+04	2.18E+04	--	--	--	--	--	7.00E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	1.26E+04	2.66E+04	--	--	--	--	--	8.56E+00
Typical	Aerial	Forested	Plane	Res-adult	1.00E+03	5.38E+03	1.14E+04	--	--	--	--	--	3.65E+00
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+03	9.83E+04	2.08E+05	--	--	--	--	--	6.67E+01
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	4.15E+04	8.76E+04	--	--	--	--	--	2.82E+01
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	2.63E+04	5.55E+04	--	--	--	--	--	1.79E+01
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	4.65E+03	9.81E+03	--	--	--	--	--	3.15E+00
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	5.80E+03	1.22E+04	--	--	--	--	--	3.94E+00
Max	Aerial	Forested	Plane	Res-adult	1.00E+03	2.65E+03	5.59E+03	--	--	--	--	--	1.80E+00
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+03	5.19E+04	1.10E+05	--	--	--	--	--	3.52E+01
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	2.08E+04	4.38E+04	--	--	--	--	--	1.41E+01
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	1.32E+04	2.78E+04	--	--	--	--	--	8.93E+00

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	3.96E+03	4.08E+04	9.00E+06	--	33%	16.2%	11%	1.14E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	4.85E+03	4.99E+04	9.08E+06	--	33%	13.3%	11%	1.25E+00
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+03	2.07E+03	2.13E+04	8.58E+06	--	35%	31.1%	12%	**7.66E-01**
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	3.78E+04	3.88E+05	9.43E+06	--	32%	1.70%	11%	2.14E+00
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	1.59E+04	1.64E+05	9.35E+06	--	32%	4.03%	11%	1.87E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	1.01E+04	1.04E+05	9.27E+06	--	32%	6.4%	11%	1.66E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	1.78E+03	1.84E+04	4.48E+06	--	67%	36.0%	22%	**5.37E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	2.23E+03	2.29E+04	4.52E+06	--	66%	28.9%	22%	**6.03E-01**
Max	Aerial	Forested	Plane	N.A.-child	1.00E+03	1.02E+03	1.05E+04	4.28E+06	--	70%	63%	23%	**3.79E-01**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	1.99E+04	2.05E+05	4.72E+06	--	63%	3.23%	21%	1.07E+00
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	7.97E+03	8.20E+04	4.68E+06	--	64%	8.1%	21%	**9.36E-01**
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	5.05E+03	5.20E+04	3.88E+06	--	77%	12.7%	26%	**7.30E-01**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	1.03E+04	7.13E+04	1.75E+07	--	12%	16.3%	11%	1.96E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	1.26E+04	8.72E+04	1.76E+07	--	12%	13.3%	11%	2.18E+00
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+03	5.38E+03	3.72E+04	1.67E+07	--	13%	31.3%	12%	1.29E+00
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	9.83E+04	6.79E+05	1.83E+07	--	12%	1.71%	11%	3.94E+00
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	4.15E+04	2.87E+05	1.82E+07	--	12%	4.06%	11%	3.39E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	2.63E+04	1.82E+05	1.80E+07	--	12%	6.4%	11%	2.97E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	4.65E+03	3.21E+04	8.70E+06	--	25%	36.2%	22%	**9.24E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	5.80E+03	4.01E+04	8.79E+06	--	25%	29.0%	22%	1.05E+00
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+03	2.65E+03	1.83E+04	8.32E+06	--	26%	64%	23%	**6.40E-01**
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	5.19E+04	3.58E+05	9.16E+06	--	24%	3.25%	21%	1.98E+00
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	2.08E+04	1.43E+05	9.09E+06	--	24%	8.1%	21%	1.70E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	1.32E+04	9.09E+04	7.54E+06	--	29%	12.8%	26%	1.31E+00

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	2.34E+07	3.77E+04	--	--	--	3.77E+01
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	2.36E+07	3.81E+04	--	--	--	3.80E+01
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	2.23E+07	3.60E+04	--	--	--	3.59E+01
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	2.45E+07	3.96E+04	--	--	--	3.95E+01
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	2.43E+07	3.92E+04	--	--	--	3.92E+01
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	2.41E+07	3.89E+04	--	--	--	3.88E+01
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	1.16E+07	1.88E+04	--	--	--	1.88E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.18E+07	1.90E+04	--	--	--	1.90E+01
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	1.11E+07	1.80E+04	--	--	--	1.79E+01
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.23E+07	1.98E+04	--	--	--	1.98E+01
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	1.22E+07	1.96E+04	--	--	--	1.96E+01
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.01E+07	1.63E+04	--	--	--	1.63E+01
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	4.55E+07	3.38E+05	--	--	--	3.36E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	4.59E+07	3.41E+05	--	--	--	3.39E+02
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	4.33E+07	3.22E+05	--	--	--	3.20E+02
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	4.76E+07	3.54E+05	--	--	--	3.52E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	4.73E+07	3.51E+05	--	--	--	3.49E+02
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	4.68E+07	3.48E+05	--	--	--	3.46E+02
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.26E+07	1.68E+05	--	--	--	1.67E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.29E+07	1.70E+05	--	--	--	1.69E+02
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.16E+07	1.61E+05	--	--	--	1.60E+02
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.38E+07	1.77E+05	--	--	--	1.76E+02
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	2.36E+07	1.76E+05	--	--	--	1.74E+02
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	1.96E+07	1.46E+05	--	--	--	1.45E+02

--Receptor not exposed via this pathway.
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Intermediate-term Exposure

Herbicide: **2,4-D (Land; Annual and Perennial Species)**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a)						Maximum Application Rate Scenario ARIs (a)					
AgDrift Scenario:	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	3	3	2	4	4	4	1.4	1.5	1.1	2	2	1.5
Berry Picker (Child)	**0.9**	**0.99**	**0.7**	1.5	1.3	1.2	**0.4**	**0.5**	**0.3**	**0.7**	**0.7**	**0.5**
Berry Picker (Adult)	2	2	1	4	3	3	**0.9**	1.02	**0.6**	2	2	1.3
Angler (Adult)	3	3	2	4	4	3	1.3	1.4	1.1	2	2	1.5
Residential (Child)	3	4	2	29	12	8	1.4	1.7	**0.8**	15	6	4
Residential (Adult)	7	9	4	67	28	18	3	3.9	1.8	35	14	9
Native American (Child)	1.1	1.3	**0.8**	2	2	2	**0.5**	**0.6**	**0.4**	1.1	**0.9**	**0.7**
Native American (Adult)	2	2	1.3	4	3	3	**0.9**	1.05	**0.6**	2	2	1.3
Swimmer (Child)	38	38	36	39	39	39	19	19	18	20	20	16
Swimmer (Adult)	336	339	320	352	349	346	167	169	160	176	174	145

ARI - Aggregate Risk Index. Values less than one represent a level of concern and are highlighted.

(a) - Application rates are shown on Table 4-1 and are the same for each program.

(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.

(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	2.03E-04	7.17E+01	1.45E-03	5.00E+00	3.44E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	1.66E-04	7.17E+01	1.19E-03	5.00E+00	4.21E+03
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	3.89E-04	7.17E+01	2.79E-03	5.00E+00	1.79E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	2.13E-05	7.17E+01	1.53E-04	5.00E+00	3.28E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	5.04E-05	7.17E+01	3.61E-04	5.00E+00	1.38E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	7.95E-05	7.17E+01	5.70E-04	5.00E+00	8.77E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	2.03E-04	1.87E+02	3.78E-03	5.00E+00	1.32E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	1.66E-04	1.87E+02	3.09E-03	5.00E+00	1.62E+03
Typical	Aerial	Forested	Plane	Berry - child	1.00E-01	3.89E-04	1.87E+02	7.25E-03	5.00E+00	**6.89E+02**
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E-01	2.13E-05	1.87E+02	3.97E-04	5.00E+00	1.26E+04
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	5.04E-05	1.87E+02	9.41E-04	5.00E+00	5.31E+03
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	7.95E-05	1.87E+02	1.48E-03	5.00E+00	3.37E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	5.00E+00	**5.95E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	5.00E+00	**7.43E+02**
Max	Aerial	Forested	Plane	Berry - child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	5.00E+00	**3.39E+02**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	5.00E+00	6.64E+03
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	5.00E+00	2.66E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	5.00E+00	1.68E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	2.03E-04	7.17E+01	1.45E-03	5.00E+00	3.44E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	1.66E-04	7.17E+01	1.19E-03	5.00E+00	4.21E+03
Typical	Aerial	Forested	Plane	Berry - adult	1.00E-01	3.89E-04	7.17E+01	2.79E-03	5.00E+00	1.79E+03
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	2.13E-05	7.17E+01	1.53E-04	5.00E+00	3.28E+04
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	5.04E-05	7.17E+01	3.61E-04	5.00E+00	1.38E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	7.95E-05	7.17E+01	5.70E-04	5.00E+00	8.77E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Max	Aerial	Forested	Plane	Berry - adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	2.03E-04	7.17E+01	1.45E-03	5.00E+00	3.44E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	1.66E-04	7.17E+01	1.19E-03	5.00E+00	4.21E+03
Typical	Aerial	Forested	Plane	Angler	1.00E-01	3.89E-04	7.17E+01	2.79E-03	5.00E+00	1.79E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E-01	2.13E-05	7.17E+01	1.53E-04	5.00E+00	3.28E+04
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	5.04E-05	7.17E+01	3.61E-04	5.00E+00	1.38E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	7.95E-05	7.17E+01	5.70E-04	5.00E+00	8.77E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Max	Aerial	Forested	Plane	Angler	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Max	Aerial	Forested	Helicopter	Angler	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	2.03E-04	1.87E+02	3.78E-03	5.00E+00	1.32E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	1.66E-04	1.87E+02	3.09E-03	5.00E+00	1.62E+03
Typical	Aerial	Forested	Plane	Res-child	1.00E-01	3.89E-04	1.87E+02	7.25E-03	5.00E+00	**6.89E+02**
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-01	2.13E-05	1.87E+02	3.97E-04	5.00E+00	1.26E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	5.04E-05	1.87E+02	9.41E-04	5.00E+00	5.31E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	7.95E-05	1.87E+02	1.48E-03	5.00E+00	3.37E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	5.00E+00	**5.95E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	5.00E+00	**7.43E+02**
Max	Aerial	Forested	Plane	Res-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	5.00E+00	**3.39E+02**
Max	Aerial	Forested	Helicopter	Res-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	5.00E+00	6.64E+03
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	5.00E+00	2.66E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	5.00E+00	1.68E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	2.03E-04	7.17E+01	1.45E-03	5.00E+00	3.44E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	1.66E-04	7.17E+01	1.19E-03	5.00E+00	4.21E+03
Typical	Aerial	Forested	Plane	Res-adult	1.00E-01	3.89E-04	7.17E+01	2.79E-03	5.00E+00	1.79E+03
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-01	2.13E-05	7.17E+01	1.53E-04	5.00E+00	3.28E+04
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	5.04E-05	7.17E+01	3.61E-04	5.00E+00	1.38E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	7.95E-05	7.17E+01	5.70E-04	5.00E+00	8.77E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Max	Aerial	Forested	Plane	Res-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	2.03E-04	1.87E+02	3.78E-03	5.00E+00	1.32E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	1.66E-04	1.87E+02	3.09E-03	5.00E+00	1.62E+03
Typical	Aerial	Forested	Plane	N.A.-child	1.00E-01	3.89E-04	1.87E+02	7.25E-03	5.00E+00	**6.89E+02**
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	2.13E-05	1.87E+02	3.97E-04	5.00E+00	1.26E+04
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	5.04E-05	1.87E+02	9.41E-04	5.00E+00	5.31E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	7.95E-05	1.87E+02	1.48E-03	5.00E+00	3.37E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	5.00E+00	**5.95E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	5.00E+00	**7.43E+02**
Max	Aerial	Forested	Plane	N.A.-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	5.00E+00	**3.39E+02**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	5.00E+00	6.64E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	5.00E+00	2.66E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	5.00E+00	1.68E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	2.03E-04	7.17E+01	1.45E-03	5.00E+00	3.44E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	1.66E-04	7.17E+01	1.19E-03	5.00E+00	4.21E+03
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E-01	3.89E-04	7.17E+01	2.79E-03	5.00E+00	1.79E+03
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	2.13E-05	7.17E+01	1.53E-04	5.00E+00	3.28E+04
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	5.04E-05	7.17E+01	3.61E-04	5.00E+00	1.38E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	7.95E-05	7.17E+01	5.70E-04	5.00E+00	8.77E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Max	Aerial	Forested	Plane	N.A.-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	2.03E-04	5.07E-05	2.01E+01	1.02E-04	5.00E+00	4.90E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	1.66E-04	4.14E-05	2.01E+01	8.34E-05	5.00E+00	6.00E+04
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	3.89E-04	9.72E-05	2.01E+01	1.96E-04	5.00E+00	2.56E+04
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	2.13E-05	5.32E-06	2.01E+01	1.07E-05	5.00E+00	4.67E+05
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	5.04E-05	1.26E-05	2.01E+01	2.54E-05	5.00E+00	1.97E+05
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	7.95E-05	1.99E-05	2.01E+01	4.00E-05	5.00E+00	1.25E+05
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	5.00E+00	2.21E+04
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	5.00E+00	2.76E+04
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	5.00E+00	1.26E+04
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	5.00E+00	2.46E+05
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	5.00E+00	9.86E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	5.00E+00	6.25E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	2.03E-04	5.07E-05	6.05E+01	3.07E-04	5.00E+00	1.63E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	1.66E-04	4.14E-05	6.05E+01	2.51E-04	5.00E+00	1.99E+04
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	1.00E-01	3.89E-04	9.72E-05	6.05E+01	5.88E-04	5.00E+00	8.51E+03
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	2.13E-05	5.32E-06	6.05E+01	3.22E-05	5.00E+00	1.55E+05
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	5.04E-05	1.26E-05	6.05E+01	7.62E-05	5.00E+00	6.56E+04
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	7.95E-05	1.99E-05	6.05E+01	1.20E-04	5.00E+00	4.16E+04
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	6.05E+01	6.81E-04	5.00E+00	7.34E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	6.05E+01	5.45E-04	5.00E+00	9.17E+03
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	1.00E-01	7.90E-04	1.97E-04	6.05E+01	1.19E-03	5.00E+00	4.19E+03
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	4.03E-05	1.01E-05	6.05E+01	6.10E-05	5.00E+00	8.20E+04
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	6.05E+01	1.52E-04	5.00E+00	3.28E+04
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	6.05E+01	2.41E-04	5.00E+00	2.08E+04
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	2.03E-04	5.07E-05	3.46E+01	1.75E-04	5.00E+00	2.85E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	1.66E-04	4.14E-05	3.46E+01	1.43E-04	5.00E+00	3.49E+04
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.00E-01	3.89E-04	9.72E-05	3.46E+01	3.36E-04	5.00E+00	1.49E+04
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	2.13E-05	5.32E-06	3.46E+01	1.84E-05	5.00E+00	2.72E+05
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	5.04E-05	1.26E-05	3.46E+01	4.36E-05	5.00E+00	1.15E+05
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	7.95E-05	1.99E-05	3.46E+01	6.88E-05	5.00E+00	7.27E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	3.46E+01	3.89E-04	5.00E+00	1.28E+04
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	3.46E+01	3.12E-04	5.00E+00	1.60E+04
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.00E-01	7.90E-04	1.97E-04	3.46E+01	6.83E-04	5.00E+00	7.32E+03
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	4.03E-05	1.01E-05	3.46E+01	3.49E-05	5.00E+00	1.43E+05
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	3.46E+01	8.72E-05	5.00E+00	5.74E+04
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	3.46E+01	1.38E-04	5.00E+00	3.64E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	2.03E-04	5.07E-05	2.01E+01	1.02E-04	5.00E+00	4.90E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	1.66E-04	4.14E-05	2.01E+01	8.34E-05	5.00E+00	6.00E+04
Typical	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	3.89E-04	9.72E-05	2.01E+01	1.96E-04	5.00E+00	2.56E+04
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	2.13E-05	5.32E-06	2.01E+01	1.07E-05	5.00E+00	4.67E+05
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	5.04E-05	1.26E-05	2.01E+01	2.54E-05	5.00E+00	1.97E+05
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	7.95E-05	1.99E-05	2.01E+01	4.00E-05	5.00E+00	1.25E+05
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	5.00E+00	2.21E+04
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	5.00E+00	2.76E+04
Max	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	5.00E+00	1.26E+04
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	5.00E+00	2.46E+05
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	5.00E+00	9.86E+04
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	5.00E+00	6.25E+04
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	2.03E-04	2.03E-06	5.94E+03	1.20E-03	5.00E+00	4.15E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	1.66E-04	1.66E-06	5.94E+03	9.85E-04	5.00E+00	5.08E+03
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	3.89E-04	3.89E-06	5.94E+03	2.31E-03	5.00E+00	2.17E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.00E-01	2.13E-05	2.13E-07	5.94E+03	1.26E-04	5.00E+00	3.96E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	5.04E-05	5.04E-07	5.94E+03	2.99E-04	5.00E+00	1.67E+04
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	7.95E-05	7.95E-07	5.94E+03	4.72E-04	5.00E+00	1.06E+04
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	4.50E-04	4.50E-06	5.94E+03	2.67E-03	5.00E+00	1.87E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	3.61E-04	3.61E-06	5.94E+03	2.14E-03	5.00E+00	2.33E+03
Max	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	7.90E-04	7.90E-06	5.94E+03	4.69E-03	5.00E+00	1.07E+03
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.00E-01	4.03E-05	4.03E-07	5.94E+03	2.40E-04	5.00E+00	2.09E+04
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	1.01E-04	1.01E-06	5.94E+03	5.99E-04	5.00E+00	8.35E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	1.59E-04	1.59E-06	5.94E+03	9.45E-04	5.00E+00	5.29E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	2.03E-04	2.03E-06	3.40E+03	6.88E-04	5.00E+00	7.26E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	1.66E-04	1.66E-06	3.40E+03	5.63E-04	5.00E+00	8.88E+03
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	1.00E-01	3.89E-04	3.89E-06	3.40E+03	1.32E-03	5.00E+00	3.79E+03
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	2.13E-05	2.13E-07	3.40E+03	7.23E-05	5.00E+00	6.92E+04
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	5.04E-05	5.04E-07	3.40E+03	1.71E-04	5.00E+00	2.92E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	7.95E-05	7.95E-07	3.40E+03	2.70E-04	5.00E+00	1.85E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	4.50E-04	4.50E-06	3.40E+03	1.53E-03	5.00E+00	3.27E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	3.61E-04	3.61E-06	3.40E+03	1.22E-03	5.00E+00	4.08E+03
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	1.00E-01	7.90E-04	7.90E-06	3.40E+03	2.68E-03	5.00E+00	1.86E+03
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	4.03E-05	4.03E-07	3.40E+03	1.37E-04	5.00E+00	3.65E+04
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	1.01E-04	1.01E-06	3.40E+03	3.42E-04	5.00E+00	1.46E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	1.59E-04	1.59E-06	3.40E+03	5.40E-04	5.00E+00	9.26E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	2.03E-04	5.07E-05	7.26E+01	3.68E-04	5.00E+00	1.36E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	1.66E-04	4.14E-05	7.26E+01	3.01E-04	5.00E+00	1.66E+04
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.00E-01	3.89E-04	9.72E-05	7.26E+01	7.05E-04	5.00E+00	7.09E+03
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	2.13E-05	5.32E-06	7.26E+01	3.86E-05	5.00E+00	1.29E+05
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	5.04E-05	1.26E-05	7.26E+01	9.15E-05	5.00E+00	5.47E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	7.95E-05	1.99E-05	7.26E+01	1.44E-04	5.00E+00	3.46E+04
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	7.26E+01	8.17E-04	5.00E+00	6.12E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	7.26E+01	6.55E-04	5.00E+00	7.64E+03
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.00E-01	7.90E-04	1.97E-04	7.26E+01	1.43E-03	5.00E+00	3.49E+03
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	4.03E-05	1.01E-05	7.26E+01	7.32E-05	5.00E+00	6.83E+04
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	7.26E+01	1.83E-04	5.00E+00	2.73E+04
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	7.26E+01	2.89E-04	5.00E+00	1.73E+04
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	2.03E-04	5.07E-05	4.15E+01	2.10E-04	5.00E+00	2.38E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	1.66E-04	4.14E-05	4.15E+01	1.72E-04	5.00E+00	2.91E+04
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	3.89E-04	9.72E-05	4.15E+01	4.03E-04	5.00E+00	1.24E+04
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	2.13E-05	5.32E-06	4.15E+01	2.21E-05	5.00E+00	2.26E+05
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	5.04E-05	1.26E-05	4.15E+01	5.23E-05	5.00E+00	9.56E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	7.95E-05	1.99E-05	4.15E+01	8.25E-05	5.00E+00	6.06E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	4.15E+01	4.67E-04	5.00E+00	1.07E+04
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	4.15E+01	3.74E-04	5.00E+00	1.34E+04
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	7.90E-04	1.97E-04	4.15E+01	8.19E-04	5.00E+00	6.10E+03
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	4.03E-05	1.01E-05	4.15E+01	4.18E-05	5.00E+00	1.19E+05
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	4.15E+01	1.05E-04	5.00E+00	4.78E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	4.15E+01	1.65E-04	5.00E+00	3.03E+04

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	7.67E-03	1.00E-03	4.40E+02	9.90E-08	1.50E+01	1.52E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	7.24E-03	1.00E-03	4.40E+02	9.35E-08	1.50E+01	1.60E+08
Typical	Aerial	Forested	Plane	Swimmer-child	2.93E-05	1.01E-02	1.00E-03	4.40E+02	1.31E-07	1.50E+01	1.15E+08
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	5.40E-03	1.00E-03	4.40E+02	6.97E-08	1.50E+01	2.15E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	5.79E-03	1.00E-03	4.40E+02	7.47E-08	1.50E+01	2.01E+08
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	6.20E-03	1.00E-03	4.40E+02	8.01E-08	1.50E+01	1.87E+08
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.58E-02	1.00E-03	4.40E+02	2.04E-07	1.50E+01	7.35E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	1.48E-02	1.00E-03	4.40E+02	1.91E-07	1.50E+01	7.86E+07
Max	Aerial	Forested	Plane	Swimmer-child	2.93E-05	2.03E-02	1.00E-03	4.40E+02	2.62E-07	1.50E+01	5.72E+07
Max	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	1.08E-02	1.00E-03	4.40E+02	1.39E-07	1.50E+01	1.08E+08
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	1.16E-02	1.00E-03	4.40E+02	1.49E-07	1.50E+01	1.00E+08
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	3.12E-02	1.00E-03	4.40E+02	4.02E-07	1.50E+01	3.73E+07
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	7.67E-03	1.00E-03	2.26E+02	5.09E-08	1.50E+01	2.95E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	7.24E-03	1.00E-03	2.26E+02	4.81E-08	1.50E+01	3.12E+08
Typical	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	1.01E-02	1.00E-03	2.26E+02	6.72E-08	1.50E+01	2.23E+08
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	5.40E-03	1.00E-03	2.26E+02	3.59E-08	1.50E+01	4.18E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	5.79E-03	1.00E-03	2.26E+02	3.84E-08	1.50E+01	3.90E+08
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	6.20E-03	1.00E-03	2.26E+02	4.12E-08	1.50E+01	3.64E+08
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.58E-02	1.00E-03	2.26E+02	1.05E-07	1.50E+01	1.43E+08
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	1.48E-02	1.00E-03	2.26E+02	9.82E-08	1.50E+01	1.53E+08
Max	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	2.03E-02	1.00E-03	2.26E+02	1.35E-07	1.50E+01	1.11E+08
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	1.08E-02	1.00E-03	2.26E+02	7.15E-08	1.50E+01	2.10E+08
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	1.16E-02	1.00E-03	2.26E+02	7.69E-08	1.50E+01	1.95E+08
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	3.12E-02	1.00E-03	2.26E+02	2.07E-07	1.50E+01	7.24E+07
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	7.67E-03	1.00E-03	1.14E+03	2.57E-07	1.50E+01	5.83E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	7.24E-03	1.00E-03	1.14E+03	2.43E-07	1.50E+01	6.17E+07
Typical	Aerial	Forested	Plane	N.American-child	2.93E-05	1.01E-02	1.00E-03	1.14E+03	3.39E-07	1.50E+01	4.42E+07
Typical	Aerial	Forested	Helicopter	N.American-child	2.93E-05	5.40E-03	1.00E-03	1.14E+03	1.81E-07	1.50E+01	8.27E+07
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	5.79E-03	1.00E-03	1.14E+03	1.94E-07	1.50E+01	7.72E+07
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	6.20E-03	1.00E-03	1.14E+03	2.08E-07	1.50E+01	7.21E+07
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.58E-02	1.00E-03	1.14E+03	5.31E-07	1.50E+01	2.83E+07
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	1.48E-02	1.00E-03	1.14E+03	4.96E-07	1.50E+01	3.02E+07
Max	Aerial	Forested	Plane	N.American-child	2.93E-05	2.03E-02	1.00E-03	1.14E+03	6.82E-07	1.50E+01	2.20E+07
Max	Aerial	Forested	Helicopter	N.American-child	2.93E-05	1.08E-02	1.00E-03	1.14E+03	3.61E-07	1.50E+01	4.15E+07
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	1.16E-02	1.00E-03	1.14E+03	3.89E-07	1.50E+01	3.86E+07
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	3.12E-02	1.00E-03	1.14E+03	1.05E-06	1.50E+01	1.43E+07

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	7.67E-03	1.00E-03	5.89E+02	1.32E-07	1.50E+01	1.13E+08
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	7.24E-03	1.00E-03	5.89E+02	1.25E-07	1.50E+01	1.20E+08
Typical	Aerial	Forested	Plane	N.American-adult	2.93E-05	1.01E-02	1.00E-03	5.89E+02	1.75E-07	1.50E+01	8.59E+07
Typical	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	5.40E-03	1.00E-03	5.89E+02	9.33E-08	1.50E+01	1.61E+08
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	5.79E-03	1.00E-03	5.89E+02	1.00E-07	1.50E+01	1.50E+08
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	6.20E-03	1.00E-03	5.89E+02	1.07E-07	1.50E+01	1.40E+08
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.58E-02	1.00E-03	5.89E+02	2.73E-07	1.50E+01	5.49E+07
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	1.48E-02	1.00E-03	5.89E+02	2.55E-07	1.50E+01	5.88E+07
Max	Aerial	Forested	Plane	N.American-adult	2.93E-05	2.03E-02	1.00E-03	5.89E+02	3.51E-07	1.50E+01	4.27E+07
Max	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	1.08E-02	1.00E-03	5.89E+02	1.86E-07	1.50E+01	8.07E+07
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	1.16E-02	1.00E-03	5.89E+02	2.00E-07	1.50E+01	7.50E+07
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	3.12E-02	1.00E-03	5.89E+02	5.38E-07	1.50E+01	2.79E+07

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	7.67E-03	8.00E-03	6.13E-05	1.50E+01	2.45E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	7.24E-03	8.00E-03	5.79E-05	1.50E+01	2.59E+05
Typical	Aerial	Forested	Plane	Swimmer-child	1.01E-02	8.00E-03	8.09E-05	1.50E+01	1.85E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	5.40E-03	8.00E-03	4.32E-05	1.50E+01	3.47E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	5.79E-03	8.00E-03	4.63E-05	1.50E+01	3.24E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	6.20E-03	8.00E-03	4.96E-05	1.50E+01	3.02E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.58E-02	8.00E-03	1.26E-04	1.50E+01	1.19E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.48E-02	8.00E-03	1.18E-04	1.50E+01	1.27E+05
Max	Aerial	Forested	Plane	Swimmer-child	2.03E-02	8.00E-03	1.63E-04	1.50E+01	9.22E+04
Max	Aerial	Forested	Helicopter	Swimmer-child	1.08E-02	8.00E-03	8.62E-05	1.50E+01	1.74E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.16E-02	8.00E-03	9.26E-05	1.50E+01	1.62E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	3.12E-02	8.00E-03	2.49E-04	1.50E+01	6.01E+04
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	7.67E-03	8.93E-04	6.85E-06	1.50E+01	2.19E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	7.24E-03	8.93E-04	6.47E-06	1.50E+01	2.32E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	1.01E-02	8.93E-04	9.03E-06	1.50E+01	1.66E+06
Typical	Aerial	Forested	Helicopter	Swimmer-adult	5.40E-03	8.93E-04	4.83E-06	1.50E+01	3.11E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	5.79E-03	8.93E-04	5.17E-06	1.50E+01	2.90E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	6.20E-03	8.93E-04	5.54E-06	1.50E+01	2.71E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.58E-02	8.93E-04	1.41E-05	1.50E+01	1.06E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.48E-02	8.93E-04	1.32E-05	1.50E+01	1.14E+06
Max	Aerial	Forested	Plane	Swimmer-adult	2.03E-02	8.93E-04	1.82E-05	1.50E+01	8.26E+05
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.08E-02	8.93E-04	9.62E-06	1.50E+01	1.56E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.16E-02	8.93E-04	1.03E-05	1.50E+01	1.45E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	3.12E-02	8.93E-04	2.78E-05	1.50E+01	5.39E+05

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	7.67E-03	2.52E-02	1.93E-04	5.00E-03	3.9%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	7.24E-03	2.52E-02	1.82E-04	5.00E-03	3.6%
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.01E-02	2.52E-02	2.54E-04	5.00E-03	5.1%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	5.40E-03	2.52E-02	1.36E-04	5.00E-03	2.7%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	5.79E-03	2.52E-02	1.46E-04	5.00E-03	2.9%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	6.20E-03	2.52E-02	1.56E-04	5.00E-03	3.1%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.58E-02	2.52E-02	3.98E-04	5.00E-03	8.0%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.48E-02	2.52E-02	3.72E-04	5.00E-03	7.4%
Max	Aerial	Forested	Plane	Hiker/Hunter	2.03E-02	2.52E-02	5.11E-04	5.00E-03	10%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.08E-02	2.52E-02	2.71E-04	5.00E-03	5.4%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.16E-02	2.52E-02	2.91E-04	5.00E-03	5.8%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	3.12E-02	2.52E-02	7.84E-04	5.00E-03	16%
Typical	Aerial	Non-Forested	Plane	Berry - child	7.67E-03	6.67E-02	5.11E-04	5.00E-03	10%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	7.24E-03	6.67E-02	4.83E-04	5.00E-03	10%
Typical	Aerial	Forested	Plane	Berry - child	1.01E-02	6.67E-02	6.74E-04	5.00E-03	13%
Typical	Aerial	Forested	Helicopter	Berry - child	5.40E-03	6.67E-02	3.60E-04	5.00E-03	7.2%
Typical	Ground	Not applicable	Low Boom	Berry - child	5.79E-03	6.67E-02	3.86E-04	5.00E-03	7.7%
Typical	Ground	Not applicable	High Boom	Berry - child	6.20E-03	6.67E-02	4.13E-04	5.00E-03	8.3%
Max	Aerial	Non-Forested	Plane	Berry - child	1.58E-02	6.67E-02	1.05E-03	5.00E-03	21%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.48E-02	6.67E-02	9.85E-04	5.00E-03	20%
Max	Aerial	Forested	Plane	Berry - child	2.03E-02	6.67E-02	1.36E-03	5.00E-03	27%
Max	Aerial	Forested	Helicopter	Berry - child	1.08E-02	6.67E-02	7.18E-04	5.00E-03	14%
Max	Ground	Not applicable	Low Boom	Berry - child	1.16E-02	6.67E-02	7.72E-04	5.00E-03	15%
Max	Ground	Not applicable	High Boom	Berry - child	3.12E-02	6.67E-02	2.08E-03	5.00E-03	42%
Typical	Aerial	Non-Forested	Plane	Berry - adult	7.67E-03	2.52E-02	1.93E-04	5.00E-03	3.9%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	7.24E-03	2.52E-02	1.82E-04	5.00E-03	3.6%
Typical	Aerial	Forested	Plane	Berry - adult	1.01E-02	2.52E-02	2.54E-04	5.00E-03	5.1%
Typical	Aerial	Forested	Helicopter	Berry - adult	5.40E-03	2.52E-02	1.36E-04	5.00E-03	2.7%
Typical	Ground	Not applicable	Low Boom	Berry - adult	5.79E-03	2.52E-02	1.46E-04	5.00E-03	2.9%
Typical	Ground	Not applicable	High Boom	Berry - adult	6.20E-03	2.52E-02	1.56E-04	5.00E-03	3.1%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.58E-02	2.52E-02	3.98E-04	5.00E-03	8.0%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.48E-02	2.52E-02	3.72E-04	5.00E-03	7.4%
Max	Aerial	Forested	Plane	Berry - adult	2.03E-02	2.52E-02	5.11E-04	5.00E-03	10%
Max	Aerial	Forested	Helicopter	Berry - adult	1.08E-02	2.52E-02	2.71E-04	5.00E-03	5.4%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.16E-02	2.52E-02	2.91E-04	5.00E-03	5.8%
Max	Ground	Not applicable	High Boom	Berry - adult	3.12E-02	2.52E-02	7.84E-04	5.00E-03	16%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	7.67E-03	2.52E-02	1.93E-04	5.00E-03	3.9%
Typical	Aerial	Non-Forested	Helicopter	Angler	7.24E-03	2.52E-02	1.82E-04	5.00E-03	3.6%
Typical	Aerial	Forested	Plane	Angler	1.01E-02	2.52E-02	2.54E-04	5.00E-03	5.1%
Typical	Aerial	Forested	Helicopter	Angler	5.40E-03	2.52E-02	1.36E-04	5.00E-03	2.7%
Typical	Ground	Not applicable	Low Boom	Angler	5.79E-03	2.52E-02	1.46E-04	5.00E-03	2.9%
Typical	Ground	Not applicable	High Boom	Angler	6.20E-03	2.52E-02	1.56E-04	5.00E-03	3.1%
Max	Aerial	Non-Forested	Plane	Angler	1.58E-02	2.52E-02	3.98E-04	5.00E-03	8.0%
Max	Aerial	Non-Forested	Helicopter	Angler	1.48E-02	2.52E-02	3.72E-04	5.00E-03	7.4%
Max	Aerial	Forested	Plane	Angler	2.03E-02	2.52E-02	5.11E-04	5.00E-03	10%
Max	Aerial	Forested	Helicopter	Angler	1.08E-02	2.52E-02	2.71E-04	5.00E-03	5.4%
Max	Ground	Not applicable	Low Boom	Angler	1.16E-02	2.52E-02	2.91E-04	5.00E-03	5.8%
Max	Ground	Not applicable	High Boom	Angler	3.12E-02	2.52E-02	7.84E-04	5.00E-03	16%
Typical	Aerial	Non-Forested	Plane	N.American - child	7.67E-03	3.33E-02	2.56E-04	5.00E-03	5.1%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	7.24E-03	3.33E-02	2.41E-04	5.00E-03	4.8%
Typical	Aerial	Forested	Plane	N.American - child	1.01E-02	3.33E-02	3.37E-04	5.00E-03	6.7%
Typical	Aerial	Forested	Helicopter	N.American - child	5.40E-03	3.33E-02	1.80E-04	5.00E-03	3.6%
Typical	Ground	Not applicable	Low Boom	N.American - child	5.79E-03	3.33E-02	1.93E-04	5.00E-03	3.9%
Typical	Ground	Not applicable	High Boom	N.American - child	6.20E-03	3.33E-02	2.07E-04	5.00E-03	4.1%
Max	Aerial	Non-Forested	Plane	N.American - child	1.58E-02	3.33E-02	5.27E-04	5.00E-03	11%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.48E-02	3.33E-02	4.93E-04	5.00E-03	10%
Max	Aerial	Forested	Plane	N.American - child	2.03E-02	3.33E-02	6.78E-04	5.00E-03	14%
Max	Aerial	Forested	Helicopter	N.American - child	1.08E-02	3.33E-02	3.59E-04	5.00E-03	7.2%
Max	Ground	Not applicable	Low Boom	N.American - child	1.16E-02	3.33E-02	3.86E-04	5.00E-03	7.7%
Max	Ground	Not applicable	High Boom	N.American - child	3.12E-02	3.33E-02	1.04E-03	5.00E-03	21%
Typical	Aerial	Non-Forested	Plane	N.American - adult	7.67E-03	1.26E-02	9.64E-05	5.00E-03	1.9%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	7.24E-03	1.26E-02	9.11E-05	5.00E-03	1.8%
Typical	Aerial	Forested	Plane	N.American - adult	1.01E-02	1.26E-02	1.27E-04	5.00E-03	2.5%
Typical	Aerial	Forested	Helicopter	N.American - adult	5.40E-03	1.26E-02	6.80E-05	5.00E-03	1.4%
Typical	Ground	Not applicable	Low Boom	N.American - adult	5.79E-03	1.26E-02	7.28E-05	5.00E-03	1.5%
Typical	Ground	Not applicable	High Boom	N.American - adult	6.20E-03	1.26E-02	7.80E-05	5.00E-03	1.6%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.58E-02	1.26E-02	1.99E-04	5.00E-03	4.0%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.48E-02	1.26E-02	1.86E-04	5.00E-03	3.7%
Max	Aerial	Forested	Plane	N.American - adult	2.03E-02	1.26E-02	2.56E-04	5.00E-03	5.1%
Max	Aerial	Forested	Helicopter	N.American - adult	1.08E-02	1.26E-02	1.35E-04	5.00E-03	2.7%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.16E-02	1.26E-02	1.46E-04	5.00E-03	2.9%
Max	Ground	Not applicable	High Boom	N.American - adult	3.12E-02	1.26E-02	3.92E-04	5.00E-03	7.8%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Ingestion of Fish
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	7.67E-03	1.00E+00	1.00E-06	7.67E+02	5.88E-06	5.00E-03	0.12%
Typical	Aerial	Non-Forested	Helicopter	Angler	7.24E-03	1.00E+00	1.00E-06	7.67E+02	5.56E-06	5.00E-03	0.11%
Typical	Aerial	Forested	Plane	Angler	1.01E-02	1.00E+00	1.00E-06	7.67E+02	7.76E-06	5.00E-03	0.16%
Typical	Aerial	Forested	Helicopter	Angler	5.40E-03	1.00E+00	1.00E-06	7.67E+02	4.15E-06	5.00E-03	0.083%
Typical	Ground	Not applicable	Low Boom	Angler	5.79E-03	1.00E+00	1.00E-06	7.67E+02	4.44E-06	5.00E-03	0.09%
Typical	Ground	Not applicable	High Boom	Angler	6.20E-03	1.00E+00	1.00E-06	7.67E+02	4.76E-06	5.00E-03	0.10%
Max	Aerial	Non-Forested	Plane	Angler	1.58E-02	1.00E+00	1.00E-06	7.67E+02	1.21E-05	5.00E-03	0.24%
Max	Aerial	Non-Forested	Helicopter	Angler	1.48E-02	1.00E+00	1.00E-06	7.67E+02	1.13E-05	5.00E-03	0.23%
Max	Aerial	Forested	Plane	Angler	2.03E-02	1.00E+00	1.00E-06	7.67E+02	1.56E-05	5.00E-03	0.31%
Max	Aerial	Forested	Helicopter	Angler	1.08E-02	1.00E+00	1.00E-06	7.67E+02	8.26E-06	5.00E-03	0.17%
Max	Ground	Not applicable	Low Boom	Angler	1.16E-02	1.00E+00	1.00E-06	7.67E+02	8.88E-06	5.00E-03	0.18%
Max	Ground	Not applicable	High Boom	Angler	3.12E-02	1.00E+00	1.00E-06	7.67E+02	2.39E-05	5.00E-03	0.48%
Typical	Aerial	Non-Forested	Plane	N.American - child	7.67E-03	1.00E+00	1.00E-06	1.11E+04	8.54E-05	5.00E-03	1.7%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	7.24E-03	1.00E+00	1.00E-06	1.11E+04	8.06E-05	5.00E-03	1.6%
Typical	Aerial	Forested	Plane	N.American - child	1.01E-02	1.00E+00	1.00E-06	1.11E+04	1.13E-04	5.00E-03	2.3%
Typical	Aerial	Forested	Helicopter	N.American - child	5.40E-03	1.00E+00	1.00E-06	1.11E+04	6.02E-05	5.00E-03	1.2%
Typical	Ground	Not applicable	Low Boom	N.American - child	5.79E-03	1.00E+00	1.00E-06	1.11E+04	6.44E-05	5.00E-03	1.3%
Typical	Ground	Not applicable	High Boom	N.American - child	6.20E-03	1.00E+00	1.00E-06	1.11E+04	6.90E-05	5.00E-03	1.4%
Max	Aerial	Non-Forested	Plane	N.American - child	1.58E-02	1.00E+00	1.00E-06	1.11E+04	1.76E-04	5.00E-03	3.5%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.48E-02	1.00E+00	1.00E-06	1.11E+04	1.65E-04	5.00E-03	3.3%
Max	Aerial	Forested	Plane	N.American - child	2.03E-02	1.00E+00	1.00E-06	1.11E+04	2.26E-04	5.00E-03	4.5%
Max	Aerial	Forested	Helicopter	N.American - child	1.08E-02	1.00E+00	1.00E-06	1.11E+04	1.20E-04	5.00E-03	2.4%
Max	Ground	Not applicable	Low Boom	N.American - child	1.16E-02	1.00E+00	1.00E-06	1.11E+04	1.29E-04	5.00E-03	2.6%
Max	Ground	Not applicable	High Boom	N.American - child	3.12E-02	1.00E+00	1.00E-06	1.11E+04	3.47E-04	5.00E-03	6.9%
Typical	Aerial	Non-Forested	Plane	N.American - adult	7.67E-03	1.00E+00	1.00E-06	1.11E+04	8.53E-05	5.00E-03	1.7%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	7.24E-03	1.00E+00	1.00E-06	1.11E+04	8.06E-05	5.00E-03	1.6%
Typical	Aerial	Forested	Plane	N.American - adult	1.01E-02	1.00E+00	1.00E-06	1.11E+04	1.13E-04	5.00E-03	2.3%
Typical	Aerial	Forested	Helicopter	N.American - adult	5.40E-03	1.00E+00	1.00E-06	1.11E+04	6.01E-05	5.00E-03	1.2%
Typical	Ground	Not applicable	Low Boom	N.American - adult	5.79E-03	1.00E+00	1.00E-06	1.11E+04	6.44E-05	5.00E-03	1.3%
Typical	Ground	Not applicable	High Boom	N.American - adult	6.20E-03	1.00E+00	1.00E-06	1.11E+04	6.90E-05	5.00E-03	1.4%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.58E-02	1.00E+00	1.00E-06	1.11E+04	1.76E-04	5.00E-03	3.5%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.48E-02	1.00E+00	1.00E-06	1.11E+04	1.65E-04	5.00E-03	3.3%
Max	Aerial	Forested	Plane	N.American - adult	2.03E-02	1.00E+00	1.00E-06	1.11E+04	2.26E-04	5.00E-03	4.5%
Max	Aerial	Forested	Helicopter	N.American - adult	1.08E-02	1.00E+00	1.00E-06	1.11E+04	1.20E-04	5.00E-03	2.4%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.16E-02	1.00E+00	1.00E-06	1.11E+04	1.29E-04	5.00E-03	2.6%
Max	Ground	Not applicable	High Boom	N.American - adult	3.12E-02	1.00E+00	1.00E-06	1.11E+04	3.47E-04	5.00E-03	6.9%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Ingestion of Berries
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	2.03E-04	4.00E+00	8.11E-04	5.00E-03	16.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.66E-04	4.00E+00	6.63E-04	5.00E-03	13.3%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	3.89E-04	4.00E+00	1.55E-03	5.00E-03	31.1%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	2.13E-05	4.00E+00	8.51E-05	5.00E-03	1.70%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	5.00E-03	4.03%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	7.95E-05	4.00E+00	3.18E-04	5.00E-03	6.4%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	5.00E-03	63%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	5.00E-03	3.23%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	2.03E-04	4.03E+00	8.16E-04	5.00E-03	16.3%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.66E-04	4.03E+00	6.67E-04	5.00E-03	13.3%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	3.89E-04	4.03E+00	1.56E-03	5.00E-03	31.3%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	5.00E-03	1.71%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	5.00E-03	4.06%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	7.95E-05	4.03E+00	3.20E-04	5.00E-03	6.4%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	5.00E-03	64%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	5.00E-03	3.25%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, long-Term
Pathway: Ingestion of Berries
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	2.03E-04	4.00E+00	8.11E-04	5.00E-03	16.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.66E-04	4.00E+00	6.63E-04	5.00E-03	13.3%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	3.89E-04	4.00E+00	1.55E-03	5.00E-03	31.1%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	2.13E-05	4.00E+00	8.51E-05	5.00E-03	1.70%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	5.00E-03	4.03%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	7.95E-05	4.00E+00	3.18E-04	5.00E-03	6.4%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	5.00E-03	63%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	5.00E-03	3.23%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	2.03E-04	4.03E+00	8.16E-04	5.00E-03	16.3%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.66E-04	4.03E+00	6.67E-04	5.00E-03	13.3%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	3.89E-04	4.03E+00	1.56E-03	5.00E-03	31.3%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	5.00E-03	1.71%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	5.00E-03	4.06%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	7.95E-05	4.03E+00	3.20E-04	5.00E-03	6.4%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	5.00E-03	64%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	5.00E-03	3.25%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, long-Term
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	3.44E+03	4.90E+04	--	--	3.9%	--	--	2.86E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	4.21E+03	6.00E+04	--	--	3.6%	--	--	3.44E+00
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	1.79E+03	2.56E+04	--	--	5.1%	--	--	1.54E+00
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	3.28E+04	4.67E+05	--	--	2.7%	--	--	1.67E+01
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	1.38E+04	1.97E+05	--	--	2.9%	--	--	9.39E+00
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	8.77E+03	1.25E+05	--	--	3.1%	--	--	6.53E+00
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	1.55E+03	2.21E+04	--	--	8.0%	--	--	1.30E+00
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	1.93E+03	2.76E+04	--	--	7.4%	--	--	1.59E+00
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	**8.83E+02**	1.26E+04	--	--	10%	--	--	**7.61E-01**
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	1.73E+04	2.46E+05	--	--	5.4%	--	--	8.62E+00
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	6.92E+03	9.86E+04	--	--	5.8%	--	--	4.70E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	4.38E+03	6.25E+04	--	--	16%	--	--	2.49E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	1.32E+03	1.63E+04	--	--	10%	16.2%	--	**9.24E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	1.62E+03	1.99E+04	--	--	10%	13.3%	--	1.11E+00
Typical	Aerial	Forested	Plane	Berry - child	1.00E+03	**6.89E+02**	8.51E+03	--	--	13%	31.1%	--	**4.96E-01**
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+03	1.26E+04	1.55E+05	--	--	7.2%	1.70%	--	5.72E+00
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	5.31E+03	6.56E+04	--	--	7.7%	4.03%	--	3.12E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	3.37E+03	4.16E+04	--	--	8.3%	6.4%	--	2.14E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**5.95E+02**	7.34E+03	--	--	21%	36.0%	--	**4.19E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**7.43E+02**	9.17E+03	--	--	20%	28.9%	--	**5.15E-01**
Max	Aerial	Forested	Plane	Berry - child	1.00E+03	**3.39E+02**	4.19E+03	--	--	27%	63%	--	**2.45E-01**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+03	6.64E+03	8.20E+04	--	--	14%	3.23%	--	2.95E+00
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	2.66E+03	3.28E+04	--	--	15%	8.1%	--	1.56E+00
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	1.68E+03	2.08E+04	--	--	42%	12.7%	--	**8.44E-01**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	3.44E+03	2.85E+04	--	--	3.9%	16.3%	--	1.90E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	4.21E+03	3.49E+04	--	--	3.6%	13.3%	--	2.29E+00
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+03	1.79E+03	1.49E+04	--	--	5.1%	31.3%	--	1.01E+00
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	3.28E+04	2.72E+05	--	--	2.7%	1.71%	--	1.27E+01
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	1.38E+04	1.15E+05	--	--	2.9%	4.06%	--	6.64E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	8.77E+03	7.27E+04	--	--	3.1%	6.4%	--	4.48E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	1.55E+03	1.28E+04	--	--	8.0%	36.2%	--	**8.58E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	1.93E+03	1.60E+04	--	--	7.4%	29.0%	--	1.06E+00
Max	Aerial	Forested	Plane	Berry - adult	1.00E+03	**8.83E+02**	7.32E+03	--	--	10%	64%	--	**4.98E-01**
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	1.73E+04	1.43E+05	--	--	5.4%	3.25%	--	6.60E+00
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	6.92E+03	5.74E+04	--	--	5.8%	8.1%	--	3.32E+00
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	4.38E+03	3.64E+04	--	--	16%	12.8%	--	1.85E+00

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, long-Term
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	3.44E+03	4.90E+04	--	--	3.9%	--	0.12%	2.85E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	4.21E+03	6.00E+04	--	--	3.6%	--	0.11%	3.43E+00
Typical	Aerial	Forested	Plane	Angler	1.00E+03	1.79E+03	2.56E+04	--	--	5.1%	--	0.16%	1.54E+00
Typical	Aerial	Forested	Helicopter	Angler	1.00E+03	3.28E+04	4.67E+05	--	--	2.7%	--	0.08%	1.65E+01
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	1.38E+04	1.97E+05	--	--	2.9%	--	0.09%	9.31E+00
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	8.77E+03	1.25E+05	--	--	3.1%	--	0.10%	6.49E+00
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	1.55E+03	2.21E+04	--	--	8.0%	--	0.24%	1.29E+00
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	1.93E+03	2.76E+04	--	--	7.4%	--	0.23%	1.59E+00
Max	Aerial	Forested	Plane	Angler	1.00E+03	**8.83E+02**	1.26E+04	--	--	10%	--	0.31%	**7.59E-01**
Max	Aerial	Forested	Helicopter	Angler	1.00E+03	1.73E+04	2.46E+05	--	--	5.4%	--	0.17%	8.50E+00
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	6.92E+03	9.86E+04	--	--	5.8%	--	0.18%	4.66E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	4.38E+03	6.25E+04	--	--	16%	--	0.48%	2.46E+00
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	1.32E+03	4.15E+03	--	--	--	--	--	1.00E+00
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	1.62E+03	5.08E+03	--	--	--	--	--	1.23E+00
Typical	Aerial	Forested	Plane	Res-child	1.00E+03	**6.89E+02**	2.17E+03	--	--	--	--	--	**5.23E-01**
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+03	1.26E+04	3.96E+04	--	--	--	--	--	9.55E+00
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	5.31E+03	1.67E+04	--	--	--	--	--	4.03E+00
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	3.37E+03	1.06E+04	--	--	--	--	--	2.56E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**5.95E+02**	1.87E+03	--	--	--	--	--	**4.51E-01**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**7.43E+02**	2.33E+03	--	--	--	--	--	**5.63E-01**
Max	Aerial	Forested	Plane	Res-child	1.00E+03	**3.39E+02**	1.07E+03	--	--	--	--	--	**2.57E-01**
Max	Aerial	Forested	Helicopter	Res-child	1.00E+03	6.64E+03	2.09E+04	--	--	--	--	--	5.04E+00
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	2.66E+03	8.35E+03	--	--	--	--	--	2.02E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	1.68E+03	5.29E+03	--	--	--	--	--	1.28E+00
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	3.44E+03	7.26E+03	--	--	--	--	--	2.33E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	4.21E+03	8.88E+03	--	--	--	--	--	2.85E+00
Typical	Aerial	Forested	Plane	Res-adult	1.00E+03	1.79E+03	3.79E+03	--	--	--	--	--	1.22E+00
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+03	3.28E+04	6.92E+04	--	--	--	--	--	2.22E+01
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	1.38E+04	2.92E+04	--	--	--	--	--	9.39E+00
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	8.77E+03	1.85E+04	--	--	--	--	--	5.95E+00
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	1.55E+03	3.27E+03	--	--	--	--	--	1.05E+00
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	1.93E+03	4.08E+03	--	--	--	--	--	1.31E+00
Max	Aerial	Forested	Plane	Res-adult	1.00E+03	**8.83E+02**	1.86E+03	--	--	--	--	--	**5.99E-01**
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+03	1.73E+04	3.65E+04	--	--	--	--	--	1.17E+01
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	6.92E+03	1.46E+04	--	--	--	--	--	4.69E+00
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	4.38E+03	9.26E+03	--	--	--	--	--	2.98E+00

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, long-Term
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	1.32E+03	1.36E+04	5.83E+07	--	5.1%	16.2%	1.7%	**9.43E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	1.62E+03	1.66E+04	6.17E+07	--	4.8%	13.3%	1.6%	1.14E+00
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+03	**6.89E+02**	7.09E+03	4.42E+07	--	6.7%	31.1%	2.3%	**5.02E-01**
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	1.26E+04	1.29E+05	8.27E+07	--	3.6%	1.70%	1.2%	6.57E+00
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	5.31E+03	5.47E+04	7.72E+07	--	3.9%	4.03%	1.3%	3.35E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	3.37E+03	3.46E+04	7.21E+07	--	4.1%	6.4%	1.4%	2.25E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**5.95E+02**	6.12E+03	2.83E+07	--	11%	36.0%	3.5%	**4.26E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**7.43E+02**	7.64E+03	3.02E+07	--	10%	28.9%	3.3%	**5.27E-01**
Max	Aerial	Forested	Plane	N.A.-child	1.00E+03	**3.39E+02**	3.49E+03	2.20E+07	--	14%	63%	4.5%	**2.47E-01**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	6.64E+03	6.83E+04	4.15E+07	--	7.2%	3.23%	2.4%	3.41E+00
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	2.66E+03	2.73E+04	3.86E+07	--	7.7%	8.1%	2.6%	1.68E+00
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	1.68E+03	1.73E+04	1.43E+07	--	21%	12.7%	6.9%	**9.47E-01**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	3.44E+03	2.38E+04	1.13E+08	--	1.9%	16.3%	1.7%	1.88E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	4.21E+03	2.91E+04	1.20E+08	--	1.8%	13.3%	1.6%	2.27E+00
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+03	1.79E+03	1.24E+04	8.59E+07	--	2.5%	31.3%	2.3%	1.00E+00
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	3.28E+04	2.26E+05	1.61E+08	--	1.4%	1.71%	1.2%	1.29E+01
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	1.38E+04	9.56E+04	1.50E+08	--	1.5%	4.06%	1.3%	6.63E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	8.77E+03	6.06E+04	1.40E+08	--	1.6%	6.4%	1.4%	4.46E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	1.55E+03	1.07E+04	5.49E+07	--	4.0%	36.2%	3.5%	**8.50E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	1.93E+03	1.34E+04	5.88E+07	--	3.7%	29.0%	3.3%	1.05E+00
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+03	**8.83E+02**	6.10E+03	4.27E+07	--	5.1%	64%	4.5%	**4.93E-01**
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	1.73E+04	1.19E+05	8.07E+07	--	2.7%	3.25%	2.4%	6.68E+00
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	6.92E+03	4.78E+04	7.50E+07	--	2.9%	8.1%	2.6%	3.32E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	4.38E+03	3.03E+04	2.79E+07	--	7.8%	12.8%	6.9%	1.86E+00

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, long-Term
Herbicide: 2,4-D (Land; Annual and Perennial Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	1.52E+08	2.45E+05	--	--	--	2.44E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.60E+08	2.59E+05	--	--	--	2.58E+02
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	1.15E+08	1.85E+05	--	--	--	1.85E+02
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	2.15E+08	3.47E+05	--	--	--	3.46E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	2.01E+08	3.24E+05	--	--	--	3.23E+02
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.87E+08	3.02E+05	--	--	--	3.02E+02
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	7.35E+07	1.19E+05	--	--	--	1.18E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	7.86E+07	1.27E+05	--	--	--	1.27E+02
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	5.72E+07	9.22E+04	--	--	--	9.21E+01
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.08E+08	1.74E+05	--	--	--	1.74E+02
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	1.00E+08	1.62E+05	--	--	--	1.62E+02
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	3.73E+07	6.01E+04	--	--	--	6.00E+01
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.95E+08	2.19E+06	--	--	--	2.17E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	3.12E+08	2.32E+06	--	--	--	2.30E+03
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.23E+08	1.66E+06	--	--	--	1.65E+03
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	4.18E+08	3.11E+06	--	--	--	3.09E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	3.90E+08	2.90E+06	--	--	--	2.88E+03
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	3.64E+08	2.71E+06	--	--	--	2.69E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.43E+08	1.06E+06	--	--	--	1.05E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.53E+08	1.14E+06	--	--	--	1.13E+03
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.11E+08	8.26E+05	--	--	--	8.20E+02
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.10E+08	1.56E+06	--	--	--	1.55E+03
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	1.95E+08	1.45E+06	--	--	--	1.44E+03
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	7.24E+07	5.39E+05	--	--	--	5.35E+02

--Receptor not exposed via this pathway.
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Long-term Exposure

Herbicide: **2,4-D (Land; Annual and Perennial Species)**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a)						Maximum Application Rate Scenario ARIs (a)					
AgDrift Scenario: **Land Type (b):** **Equipment (c):**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**
Hiker/Hunter (Adult)	3	3	1.5	17	9	7	1.3	1.6	**0.8**	9	5	2
Berry Picker (Child)	**0.9**	1.1	**0.5**	6	3	2	**0.4**	**0.5**	**0.2**	3	2	**0.8**
Berry Picker (Adult)	2	2	1.01	13	7	4	**0.9**	1.1	**0.5**	7	3	2
Angler (Adult)	3	3	2	16	9	6	1.3	2	**0.8**	8	5	2
Residential (Child)	1.002	1.2	**0.5**	10	4	3	**0.5**	**0.6**	**0.3**	5	2.0	1.3
Residential (Adult)	2	3	1.2	22	9	6	1.1	1.3	**0.6**	12	5	3
Native American (Child)	**0.9**	1.1	**0.5**	7	3	2	**0.4**	**0.5**	**0.2**	3	2	**0.9**
Native American (Adult)	2	2	1.001	13	7	4	**0.8**	1.05	**0.5**	7	3	2
Swimmer (Child)	244	258	185	346	323	302	118	127	92	174	162	60
Swimmer (Adult)	2,175	2,302	1,649	3,086	2,880	2,688	1,054	1,128	820	1,548	1,440	535

ARI - Aggregate Risk Index. Values less than one represent a level of concern and are highlighted.

(a) - Application rates are shown on Table 4-1 and are the same for each program.

(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.

(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	1.63E-03	7.17E+01	1.17E-02	1.50E+01	1.29E+03
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	8.06E-05	7.17E+01	5.78E-04	1.50E+01	2.59E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	1.50E+01	1.78E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	1.50E+01	2.23E+03
Typical	Aerial	Forested	Plane	Berry - child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	1.50E+01	1.02E+03
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	1.50E+01	1.99E+04
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	1.50E+01	7.97E+03
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	1.50E+01	5.05E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	1.50E+01	**8.40E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	1.50E+01	1.04E+03
Max	Aerial	Forested	Plane	Berry - child	1.00E-01	1.63E-03	1.87E+02	3.04E-02	1.50E+01	**4.94E+02**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E-01	8.06E-05	1.87E+02	1.51E-03	1.50E+01	9.96E+03
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	1.50E+01	4.01E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	1.50E+01	2.53E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Aerial	Forested	Plane	Berry - adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Aerial	Forested	Plane	Berry - adult	1.00E-01	1.63E-03	7.17E+01	1.17E-02	1.50E+01	1.29E+03
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	8.06E-05	7.17E+01	5.78E-04	1.50E+01	2.59E+04
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Aerial	Forested	Plane	Angler	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Aerial	Forested	Plane	Angler	1.00E-01	1.63E-03	7.17E+01	1.17E-02	1.50E+01	1.29E+03
Max	Aerial	Forested	Helicopter	Angler	1.00E-01	8.06E-05	7.17E+01	5.78E-04	1.50E+01	2.59E+04
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	1.50E+01	1.78E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	1.50E+01	2.23E+03
Typical	Aerial	Forested	Plane	Res-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	1.50E+01	1.02E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	1.50E+01	1.99E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	1.50E+01	7.97E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	1.50E+01	5.05E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	1.50E+01	**8.40E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	1.50E+01	1.04E+03
Max	Aerial	Forested	Plane	Res-child	1.00E-01	1.63E-03	1.87E+02	3.04E-02	1.50E+01	**4.94E+02**
Max	Aerial	Forested	Helicopter	Res-child	1.00E-01	8.06E-05	1.87E+02	1.51E-03	1.50E+01	9.96E+03
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	1.50E+01	4.01E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	1.50E+01	2.53E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Aerial	Forested	Plane	Res-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Aerial	Forested	Plane	Res-adult	1.00E-01	1.63E-03	7.17E+01	1.17E-02	1.50E+01	1.29E+03
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-01	8.06E-05	7.17E+01	5.78E-04	1.50E+01	2.59E+04
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	1.50E+01	1.78E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	1.50E+01	2.23E+03
Typical	Aerial	Forested	Plane	N.A.-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	1.50E+01	1.02E+03
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	1.50E+01	1.99E+04
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	1.50E+01	7.97E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	1.50E+01	5.05E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	1.50E+01	**8.40E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	1.50E+01	1.04E+03
Max	Aerial	Forested	Plane	N.A.-child	1.00E-01	1.63E-03	1.87E+02	3.04E-02	1.50E+01	**4.94E+02**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	8.06E-05	1.87E+02	1.51E-03	1.50E+01	9.96E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	1.50E+01	4.01E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	1.50E+01	2.53E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	1.50E+01	2.65E+03
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	1.50E+01	5.19E+04
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Aerial	Forested	Plane	N.A.-adult	1.00E-01	1.63E-03	7.17E+01	1.17E-02	1.50E+01	1.29E+03
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	8.06E-05	7.17E+01	5.78E-04	1.50E+01	2.59E+04
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	1.50E+01	6.62E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	1.50E+01	8.27E+04
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	1.50E+01	3.78E+04
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	1.50E+01	7.39E+05
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	1.50E+01	2.96E+05
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	1.50E+01	1.87E+05
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	9.56E-04	2.39E-04	2.01E+01	4.81E-04	1.50E+01	3.12E+04
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	7.76E-04	1.94E-04	2.01E+01	3.91E-04	1.50E+01	3.84E+04
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	1.63E-03	4.07E-04	2.01E+01	8.18E-04	1.50E+01	1.83E+04
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	8.06E-05	2.02E-05	2.01E+01	4.06E-05	1.50E+01	3.70E+05
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	2.00E-04	5.01E-05	2.01E+01	1.01E-04	1.50E+01	1.49E+05
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	3.18E-04	7.95E-05	2.01E+01	1.60E-04	1.50E+01	9.37E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	6.05E+01	6.81E-04	1.50E+01	2.20E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	6.05E+01	5.45E-04	1.50E+01	2.75E+04
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	1.00E-01	7.90E-04	1.97E-04	6.05E+01	1.19E-03	1.50E+01	1.26E+04
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	4.03E-05	1.01E-05	6.05E+01	6.10E-05	1.50E+01	2.46E+05
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	6.05E+01	1.52E-04	1.50E+01	9.84E+04
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	6.05E+01	2.41E-04	1.50E+01	6.24E+04
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	9.56E-04	2.39E-04	6.05E+01	1.45E-03	1.50E+01	1.04E+04
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	7.76E-04	1.94E-04	6.05E+01	1.17E-03	1.50E+01	1.28E+04
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	1.00E-01	1.63E-03	4.07E-04	6.05E+01	2.46E-03	1.50E+01	6.10E+03
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	8.06E-05	2.02E-05	6.05E+01	1.22E-04	1.50E+01	1.23E+05
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	2.00E-04	5.01E-05	6.05E+01	3.03E-04	1.50E+01	4.95E+04
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	3.18E-04	7.95E-05	6.05E+01	4.81E-04	1.50E+01	3.12E+04
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	3.46E+01	3.89E-04	1.50E+01	3.85E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	3.46E+01	3.12E-04	1.50E+01	4.81E+04
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.00E-01	7.90E-04	1.97E-04	3.46E+01	6.83E-04	1.50E+01	2.20E+04
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	4.03E-05	1.01E-05	3.46E+01	3.49E-05	1.50E+01	4.30E+05
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	3.46E+01	8.72E-05	1.50E+01	1.72E+05
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	3.46E+01	1.38E-04	1.50E+01	1.09E+05
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	9.56E-04	2.39E-04	3.46E+01	8.27E-04	1.50E+01	1.81E+04
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	7.76E-04	1.94E-04	3.46E+01	6.71E-04	1.50E+01	2.23E+04
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.00E-01	1.63E-03	4.07E-04	3.46E+01	1.41E-03	1.50E+01	1.07E+04
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	8.06E-05	2.02E-05	3.46E+01	6.97E-05	1.50E+01	2.15E+05
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	2.00E-04	5.01E-05	3.46E+01	1.73E-04	1.50E+01	8.65E+04
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	3.18E-04	7.95E-05	3.46E+01	2.75E-04	1.50E+01	5.45E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	1.50E+01	6.62E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	1.50E+01	8.27E+04
Typical	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	1.50E+01	3.78E+04
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	1.50E+01	7.39E+05
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	1.50E+01	2.96E+05
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	1.50E+01	1.87E+05
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	9.56E-04	2.39E-04	2.01E+01	4.81E-04	1.50E+01	3.12E+04
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	7.76E-04	1.94E-04	2.01E+01	3.91E-04	1.50E+01	3.84E+04
Max	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	1.63E-03	4.07E-04	2.01E+01	8.18E-04	1.50E+01	1.83E+04
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	8.06E-05	2.02E-05	2.01E+01	4.06E-05	1.50E+01	3.70E+05
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	2.00E-04	5.01E-05	2.01E+01	1.01E-04	1.50E+01	1.49E+05
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	3.18E-04	7.95E-05	2.01E+01	1.60E-04	1.50E+01	9.37E+04
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	4.50E-04	4.50E-06	5.94E+03	2.67E-03	1.50E+01	5.61E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	3.61E-04	3.61E-06	5.94E+03	2.14E-03	1.50E+01	7.00E+03
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	7.90E-04	7.90E-06	5.94E+03	4.69E-03	1.50E+01	3.20E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.00E-01	4.03E-05	4.03E-07	5.94E+03	2.40E-04	1.50E+01	6.26E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	1.01E-04	1.01E-06	5.94E+03	5.99E-04	1.50E+01	2.51E+04
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	1.59E-04	1.59E-06	5.94E+03	9.45E-04	1.50E+01	1.59E+04
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	9.56E-04	9.56E-06	5.94E+03	5.68E-03	1.50E+01	2.64E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	7.76E-04	7.76E-06	5.94E+03	4.61E-03	1.50E+01	3.25E+03
Max	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	1.63E-03	1.63E-05	5.94E+03	9.66E-03	1.50E+01	1.55E+03
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.00E-01	8.06E-05	8.06E-07	5.94E+03	4.79E-04	1.50E+01	3.13E+04
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	2.00E-04	2.00E-06	5.94E+03	1.19E-03	1.50E+01	1.26E+04
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	3.18E-04	3.18E-06	5.94E+03	1.89E-03	1.50E+01	7.94E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	4.50E-04	4.50E-06	3.40E+03	1.53E-03	1.50E+01	9.81E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	3.61E-04	3.61E-06	3.40E+03	1.22E-03	1.50E+01	1.22E+04
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	1.00E-01	7.90E-04	7.90E-06	3.40E+03	2.68E-03	1.50E+01	5.59E+03
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	4.03E-05	4.03E-07	3.40E+03	1.37E-04	1.50E+01	1.10E+05
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	1.01E-04	1.01E-06	3.40E+03	3.42E-04	1.50E+01	4.38E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	1.59E-04	1.59E-06	3.40E+03	5.40E-04	1.50E+01	2.78E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	9.56E-04	9.56E-06	3.40E+03	3.25E-03	1.50E+01	4.62E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	7.76E-04	7.76E-06	3.40E+03	2.64E-03	1.50E+01	5.69E+03
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	1.00E-01	1.63E-03	1.63E-05	3.40E+03	5.52E-03	1.50E+01	2.72E+03
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	8.06E-05	8.06E-07	3.40E+03	2.74E-04	1.50E+01	5.48E+04
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	2.00E-04	2.00E-06	3.40E+03	6.81E-04	1.50E+01	2.20E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	3.18E-04	3.18E-06	3.40E+03	1.08E-03	1.50E+01	1.39E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	7.26E+01	8.17E-04	1.50E+01	1.84E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	7.26E+01	6.55E-04	1.50E+01	2.29E+04
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.00E-01	7.90E-04	1.97E-04	7.26E+01	1.43E-03	1.50E+01	1.05E+04
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	4.03E-05	1.01E-05	7.26E+01	7.32E-05	1.50E+01	2.05E+05
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	7.26E+01	1.83E-04	1.50E+01	8.20E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	7.26E+01	2.89E-04	1.50E+01	5.20E+04
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	9.56E-04	2.39E-04	7.26E+01	1.74E-03	1.50E+01	8.64E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	7.76E-04	1.94E-04	7.26E+01	1.41E-03	1.50E+01	1.06E+04
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.00E-01	1.63E-03	4.07E-04	7.26E+01	2.95E-03	1.50E+01	5.08E+03
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	8.06E-05	2.02E-05	7.26E+01	1.46E-04	1.50E+01	1.02E+05
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	2.00E-04	5.01E-05	7.26E+01	3.64E-04	1.50E+01	4.12E+04
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	3.18E-04	7.95E-05	7.26E+01	5.77E-04	1.50E+01	2.60E+04
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	4.15E+01	4.67E-04	1.50E+01	3.21E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	4.15E+01	3.74E-04	1.50E+01	4.01E+04
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	7.90E-04	1.97E-04	4.15E+01	8.19E-04	1.50E+01	1.83E+04
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	4.03E-05	1.01E-05	4.15E+01	4.18E-05	1.50E+01	3.58E+05
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	4.15E+01	1.05E-04	1.50E+01	1.43E+05
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	4.15E+01	1.65E-04	1.50E+01	9.09E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	9.56E-04	2.39E-04	4.15E+01	9.93E-04	1.50E+01	1.51E+04
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	7.76E-04	1.94E-04	4.15E+01	8.05E-04	1.50E+01	1.86E+04
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	1.63E-03	4.07E-04	4.15E+01	1.69E-03	1.50E+01	8.89E+03
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	8.06E-05	2.02E-05	4.15E+01	8.37E-05	1.50E+01	1.79E+05
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	2.00E-04	5.01E-05	4.15E+01	2.08E-04	1.50E+01	7.21E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	3.18E-04	7.95E-05	4.15E+01	3.30E-04	1.50E+01	4.54E+04

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	9.17E-02	1.00E-03	4.40E+02	1.18E-06	1.50E+01	1.27E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	9.07E-02	1.00E-03	4.40E+02	1.17E-06	1.50E+01	1.28E+07
Typical	Aerial	Forested	Plane	Swimmer-child	2.93E-05	9.62E-02	1.00E-03	4.40E+02	1.24E-06	1.50E+01	1.21E+07
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	8.67E-02	1.00E-03	4.40E+02	1.12E-06	1.50E+01	1.34E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	8.75E-02	1.00E-03	4.40E+02	1.13E-06	1.50E+01	1.33E+07
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	8.83E-02	1.00E-03	4.40E+02	1.14E-06	1.50E+01	1.32E+07
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.84E-01	1.00E-03	4.40E+02	2.38E-06	1.50E+01	6.31E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	1.82E-01	1.00E-03	4.40E+02	2.35E-06	1.50E+01	6.38E+06
Max	Aerial	Forested	Plane	Swimmer-child	2.93E-05	1.93E-01	1.00E-03	4.40E+02	2.49E-06	1.50E+01	6.02E+06
Max	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	1.73E-01	1.00E-03	4.40E+02	2.24E-06	1.50E+01	6.70E+06
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	1.75E-01	1.00E-03	4.40E+02	2.26E-06	1.50E+01	6.64E+06
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	1.77E-01	1.00E-03	4.40E+02	2.28E-06	1.50E+01	6.58E+06
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	9.17E-02	1.00E-03	2.26E+02	6.09E-07	1.50E+01	2.46E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	9.07E-02	1.00E-03	2.26E+02	6.02E-07	1.50E+01	2.49E+07
Typical	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	9.62E-02	1.00E-03	2.26E+02	6.39E-07	1.50E+01	2.35E+07
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	8.67E-02	1.00E-03	2.26E+02	5.76E-07	1.50E+01	2.61E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	8.75E-02	1.00E-03	2.26E+02	5.81E-07	1.50E+01	2.58E+07
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	8.83E-02	1.00E-03	2.26E+02	5.87E-07	1.50E+01	2.56E+07
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.84E-01	1.00E-03	2.26E+02	1.22E-06	1.50E+01	1.23E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	1.82E-01	1.00E-03	2.26E+02	1.21E-06	1.50E+01	1.24E+07
Max	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	1.93E-01	1.00E-03	2.26E+02	1.28E-06	1.50E+01	1.17E+07
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	1.73E-01	1.00E-03	2.26E+02	1.15E-06	1.50E+01	1.30E+07
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	1.75E-01	1.00E-03	2.26E+02	1.16E-06	1.50E+01	1.29E+07
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	1.77E-01	1.00E-03	2.26E+02	1.17E-06	1.50E+01	1.28E+07
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	9.17E-02	1.00E-03	1.14E+03	3.08E-06	1.50E+01	4.87E+06
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	9.07E-02	1.00E-03	1.14E+03	3.04E-06	1.50E+01	4.93E+06
Typical	Aerial	Forested	Plane	N.American-child	2.93E-05	9.62E-02	1.00E-03	1.14E+03	3.23E-06	1.50E+01	4.65E+06
Typical	Aerial	Forested	Helicopter	N.American-child	2.93E-05	8.67E-02	1.00E-03	1.14E+03	2.91E-06	1.50E+01	5.16E+06
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	8.75E-02	1.00E-03	1.14E+03	2.94E-06	1.50E+01	5.11E+06
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	8.83E-02	1.00E-03	1.14E+03	2.96E-06	1.50E+01	5.06E+06
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.84E-01	1.00E-03	1.14E+03	6.18E-06	1.50E+01	2.43E+06
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	1.82E-01	1.00E-03	1.14E+03	6.11E-06	1.50E+01	2.45E+06
Max	Aerial	Forested	Plane	N.American-child	2.93E-05	1.93E-01	1.00E-03	1.14E+03	6.48E-06	1.50E+01	2.32E+06
Max	Aerial	Forested	Helicopter	N.American-child	2.93E-05	1.73E-01	1.00E-03	1.14E+03	5.82E-06	1.50E+01	2.58E+06
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	1.75E-01	1.00E-03	1.14E+03	5.87E-06	1.50E+01	2.55E+06
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	1.77E-01	1.00E-03	1.14E+03	5.93E-06	1.50E+01	2.53E+06

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	9.17E-02	1.00E-03	5.89E+02	1.58E-06	1.50E+01	9.47E+06
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	9.07E-02	1.00E-03	5.89E+02	1.57E-06	1.50E+01	9.58E+06
Typical	Aerial	Forested	Plane	N.American-adult	2.93E-05	9.62E-02	1.00E-03	5.89E+02	1.66E-06	1.50E+01	9.03E+06
Typical	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	8.67E-02	1.00E-03	5.89E+02	1.50E-06	1.50E+01	1.00E+07
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	8.75E-02	1.00E-03	5.89E+02	1.51E-06	1.50E+01	9.93E+06
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	8.83E-02	1.00E-03	5.89E+02	1.53E-06	1.50E+01	9.84E+06
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.84E-01	1.00E-03	5.89E+02	3.18E-06	1.50E+01	4.72E+06
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	1.82E-01	1.00E-03	5.89E+02	3.14E-06	1.50E+01	4.77E+06
Max	Aerial	Forested	Plane	N.American-adult	2.93E-05	1.93E-01	1.00E-03	5.89E+02	3.33E-06	1.50E+01	4.50E+06
Max	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	1.73E-01	1.00E-03	5.89E+02	2.99E-06	1.50E+01	5.01E+06
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	1.75E-01	1.00E-03	5.89E+02	3.02E-06	1.50E+01	4.96E+06
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	1.77E-01	1.00E-03	5.89E+02	3.05E-06	1.50E+01	4.92E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	9.17E-02	8.00E-03	7.34E-04	1.50E+01	2.04E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	9.07E-02	8.00E-03	7.25E-04	1.50E+01	2.07E+04
Typical	Aerial	Forested	Plane	Swimmer-child	9.62E-02	8.00E-03	7.70E-04	1.50E+01	1.95E+04
Typical	Aerial	Forested	Helicopter	Swimmer-child	8.67E-02	8.00E-03	6.93E-04	1.50E+01	2.16E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-child	8.75E-02	8.00E-03	7.00E-04	1.50E+01	2.14E+04
Typical	Ground	Not applicable	High Boom	Swimmer-child	8.83E-02	8.00E-03	7.06E-04	1.50E+01	2.12E+04
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.84E-01	8.00E-03	1.47E-03	1.50E+01	1.02E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.82E-01	8.00E-03	1.46E-03	1.50E+01	1.03E+04
Max	Aerial	Forested	Plane	Swimmer-child	1.93E-01	8.00E-03	1.54E-03	1.50E+01	9.72E+03
Max	Aerial	Forested	Helicopter	Swimmer-child	1.73E-01	8.00E-03	1.39E-03	1.50E+01	1.08E+04
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.75E-01	8.00E-03	1.40E-03	1.50E+01	1.07E+04
Max	Ground	Not applicable	High Boom	Swimmer-child	1.77E-01	8.00E-03	1.41E-03	1.50E+01	1.06E+04
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	9.17E-02	8.93E-04	8.19E-05	1.50E+01	1.83E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	9.07E-02	8.93E-04	8.10E-05	1.50E+01	1.85E+05
Typical	Aerial	Forested	Plane	Swimmer-adult	9.62E-02	8.93E-04	8.59E-05	1.50E+01	1.75E+05
Typical	Aerial	Forested	Helicopter	Swimmer-adult	8.67E-02	8.93E-04	7.74E-05	1.50E+01	1.94E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	8.75E-02	8.93E-04	7.81E-05	1.50E+01	1.92E+05
Typical	Ground	Not applicable	High Boom	Swimmer-adult	8.83E-02	8.93E-04	7.89E-05	1.50E+01	1.90E+05
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.84E-01	8.93E-04	1.64E-04	1.50E+01	9.12E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.82E-01	8.93E-04	1.63E-04	1.50E+01	9.22E+04
Max	Aerial	Forested	Plane	Swimmer-adult	1.93E-01	8.93E-04	1.72E-04	1.50E+01	8.71E+04
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.73E-01	8.93E-04	1.55E-04	1.50E+01	9.69E+04
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.75E-01	8.93E-04	1.56E-04	1.50E+01	9.60E+04
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.77E-01	8.93E-04	1.58E-04	1.50E+01	9.51E+04

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	9.17E-02	2.52E-02	2.31E-03	5.00E-03	46%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	9.07E-02	2.52E-02	2.28E-03	5.00E-03	46%
Typical	Aerial	Forested	Plane	Hiker/Hunter	9.62E-02	2.52E-02	2.42E-03	5.00E-03	48%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	8.67E-02	2.52E-02	2.18E-03	5.00E-03	44%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	8.75E-02	2.52E-02	2.20E-03	5.00E-03	44%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	8.83E-02	2.52E-02	2.22E-03	5.00E-03	44%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.84E-01	2.52E-02	4.63E-03	5.00E-03	93%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.82E-01	2.52E-02	4.58E-03	5.00E-03	92%
Max	Aerial	Forested	Plane	Hiker/Hunter	1.93E-01	2.52E-02	4.85E-03	5.00E-03	97%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.73E-01	2.52E-02	4.36E-03	5.00E-03	87%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.75E-01	2.52E-02	4.40E-03	5.00E-03	88.04%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.77E-01	2.52E-02	4.44E-03	5.00E-03	89%
Typical	Aerial	Non-Forested	Plane	Berry - child	9.17E-02	6.67E-02	6.11E-03	5.00E-03	**122%**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	9.07E-02	6.67E-02	6.05E-03	5.00E-03	**121%**
Typical	Aerial	Forested	Plane	Berry - child	9.62E-02	6.67E-02	6.41E-03	5.00E-03	**128%**
Typical	Aerial	Forested	Helicopter	Berry - child	8.67E-02	6.67E-02	5.78E-03	5.00E-03	**116%**
Typical	Ground	Not applicable	Low Boom	Berry - child	8.75E-02	6.67E-02	5.83E-03	5.00E-03	**117%**
Typical	Ground	Not applicable	High Boom	Berry - child	8.83E-02	6.67E-02	5.89E-03	5.00E-03	**118%**
Max	Aerial	Non-Forested	Plane	Berry - child	1.84E-01	6.67E-02	1.23E-02	5.00E-03	**246%**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.82E-01	6.67E-02	1.21E-02	5.00E-03	**243%**
Max	Aerial	Forested	Plane	Berry - child	1.93E-01	6.67E-02	1.29E-02	5.00E-03	**257%**
Max	Aerial	Forested	Helicopter	Berry - child	1.73E-01	6.67E-02	1.16E-02	5.00E-03	**231%**
Max	Ground	Not applicable	Low Boom	Berry - child	1.75E-01	6.67E-02	1.17E-02	5.00E-03	**233%**
Max	Ground	Not applicable	High Boom	Berry - child	1.77E-01	6.67E-02	1.18E-02	5.00E-03	**235%**
Typical	Aerial	Non-Forested	Plane	Berry - adult	9.17E-02	2.52E-02	2.31E-03	5.00E-03	46%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	9.07E-02	2.52E-02	2.28E-03	5.00E-03	46%
Typical	Aerial	Forested	Plane	Berry - adult	9.62E-02	2.52E-02	2.42E-03	5.00E-03	48%
Typical	Aerial	Forested	Helicopter	Berry - adult	8.67E-02	2.52E-02	2.18E-03	5.00E-03	44%
Typical	Ground	Not applicable	Low Boom	Berry - adult	8.75E-02	2.52E-02	2.20E-03	5.00E-03	44%
Typical	Ground	Not applicable	High Boom	Berry - adult	8.83E-02	2.52E-02	2.22E-03	5.00E-03	44%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.84E-01	2.52E-02	4.63E-03	5.00E-03	93%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.82E-01	2.52E-02	4.58E-03	5.00E-03	92%
Max	Aerial	Forested	Plane	Berry - adult	1.93E-01	2.52E-02	4.85E-03	5.00E-03	97%
Max	Aerial	Forested	Helicopter	Berry - adult	1.73E-01	2.52E-02	4.36E-03	5.00E-03	87%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.75E-01	2.52E-02	4.40E-03	5.00E-03	88.04%
Max	Ground	Not applicable	High Boom	Berry - adult	1.77E-01	2.52E-02	4.44E-03	5.00E-03	89%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	9.17E-02	2.52E-02	2.31E-03	5.00E-03	46%
Typical	Aerial	Non-Forested	Helicopter	Angler	9.07E-02	2.52E-02	2.28E-03	5.00E-03	46%
Typical	Aerial	Forested	Plane	Angler	9.62E-02	2.52E-02	2.42E-03	5.00E-03	48%
Typical	Aerial	Forested	Helicopter	Angler	8.67E-02	2.52E-02	2.18E-03	5.00E-03	44%
Typical	Ground	Not applicable	Low Boom	Angler	8.75E-02	2.52E-02	2.20E-03	5.00E-03	44%
Typical	Ground	Not applicable	High Boom	Angler	8.83E-02	2.52E-02	2.22E-03	5.00E-03	44%
Max	Aerial	Non-Forested	Plane	Angler	1.84E-01	2.52E-02	4.63E-03	5.00E-03	93%
Max	Aerial	Non-Forested	Helicopter	Angler	1.82E-01	2.52E-02	4.58E-03	5.00E-03	92%
Max	Aerial	Forested	Plane	Angler	1.93E-01	2.52E-02	4.85E-03	5.00E-03	97%
Max	Aerial	Forested	Helicopter	Angler	1.73E-01	2.52E-02	4.36E-03	5.00E-03	87%
Max	Ground	Not applicable	Low Boom	Angler	1.75E-01	2.52E-02	4.40E-03	5.00E-03	88.04%
Max	Ground	Not applicable	High Boom	Angler	1.77E-01	2.52E-02	4.44E-03	5.00E-03	89%
Typical	Aerial	Non-Forested	Plane	N.American - child	9.17E-02	3.33E-02	3.06E-03	5.00E-03	61%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	9.07E-02	3.33E-02	3.02E-03	5.00E-03	60%
Typical	Aerial	Forested	Plane	N.American - child	9.62E-02	3.33E-02	3.21E-03	5.00E-03	64%
Typical	Aerial	Forested	Helicopter	N.American - child	8.67E-02	3.33E-02	2.89E-03	5.00E-03	58%
Typical	Ground	Not applicable	Low Boom	N.American - child	8.75E-02	3.33E-02	2.92E-03	5.00E-03	58%
Typical	Ground	Not applicable	High Boom	N.American - child	8.83E-02	3.33E-02	2.94E-03	5.00E-03	59%
Max	Aerial	Non-Forested	Plane	N.American - child	1.84E-01	3.33E-02	6.14E-03	5.00E-03	**123%**
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.82E-01	3.33E-02	6.07E-03	5.00E-03	**121%**
Max	Aerial	Forested	Plane	N.American - child	1.93E-01	3.33E-02	6.43E-03	5.00E-03	**129%**
Max	Aerial	Forested	Helicopter	N.American - child	1.73E-01	3.33E-02	5.78E-03	5.00E-03	**116%**
Max	Ground	Not applicable	Low Boom	N.American - child	1.75E-01	3.33E-02	5.83E-03	5.00E-03	**117%**
Max	Ground	Not applicable	High Boom	N.American - child	1.77E-01	3.33E-02	5.89E-03	5.00E-03	**118%**
Typical	Aerial	Non-Forested	Plane	N.American - adult	9.17E-02	1.26E-02	1.15E-03	5.00E-03	23%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	9.07E-02	1.26E-02	1.14E-03	5.00E-03	23%
Typical	Aerial	Forested	Plane	N.American - adult	9.62E-02	1.26E-02	1.21E-03	5.00E-03	24%
Typical	Aerial	Forested	Helicopter	N.American - adult	8.67E-02	1.26E-02	1.09E-03	5.00E-03	22%
Typical	Ground	Not applicable	Low Boom	N.American - adult	8.75E-02	1.26E-02	1.10E-03	5.00E-03	22%
Typical	Ground	Not applicable	High Boom	N.American - adult	8.83E-02	1.26E-02	1.11E-03	5.00E-03	22%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.84E-01	1.26E-02	2.32E-03	5.00E-03	46%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.82E-01	1.26E-02	2.29E-03	5.00E-03	46%
Max	Aerial	Forested	Plane	N.American - adult	1.93E-01	1.26E-02	2.43E-03	5.00E-03	49%
Max	Aerial	Forested	Helicopter	N.American - adult	1.73E-01	1.26E-02	2.18E-03	5.00E-03	44%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.75E-01	1.26E-02	2.20E-03	5.00E-03	44%
Max	Ground	Not applicable	High Boom	N.American - adult	1.77E-01	1.26E-02	2.22E-03	5.00E-03	44%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Fish
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	9.17E-02	1.00E+00	1.00E-06	7.67E+02	7.04E-05	5.00E-03	1.4%
Typical	Aerial	Non-Forested	Helicopter	Angler	9.07E-02	1.00E+00	1.00E-06	7.67E+02	6.96E-05	5.00E-03	1.4%
Typical	Aerial	Forested	Plane	Angler	9.62E-02	1.00E+00	1.00E-06	7.67E+02	7.38E-05	5.00E-03	1.5%
Typical	Aerial	Forested	Helicopter	Angler	8.67E-02	1.00E+00	1.00E-06	7.67E+02	6.65E-05	5.00E-03	1.3%
Typical	Ground	Not applicable	Low Boom	Angler	8.75E-02	1.00E+00	1.00E-06	7.67E+02	6.71E-05	5.00E-03	1.3%
Typical	Ground	Not applicable	High Boom	Angler	8.83E-02	1.00E+00	1.00E-06	7.67E+02	6.78E-05	5.00E-03	1.4%
Max	Aerial	Non-Forested	Plane	Angler	1.84E-01	1.00E+00	1.00E-06	7.67E+02	1.41E-04	5.00E-03	2.8%
Max	Aerial	Non-Forested	Helicopter	Angler	1.82E-01	1.00E+00	1.00E-06	7.67E+02	1.40E-04	5.00E-03	2.8%
Max	Aerial	Forested	Plane	Angler	1.93E-01	1.00E+00	1.00E-06	7.67E+02	1.48E-04	5.00E-03	3.0%
Max	Aerial	Forested	Helicopter	Angler	1.73E-01	1.00E+00	1.00E-06	7.67E+02	1.33E-04	5.00E-03	2.7%
Max	Ground	Not applicable	Low Boom	Angler	1.75E-01	1.00E+00	1.00E-06	7.67E+02	1.34E-04	5.00E-03	2.7%
Max	Ground	Not applicable	High Boom	Angler	1.77E-01	1.00E+00	1.00E-06	7.67E+02	1.36E-04	5.00E-03	2.7%
Typical	Aerial	Non-Forested	Plane	N.American - child	9.17E-02	1.00E+00	1.00E-06	1.11E+04	1.02E-03	5.00E-03	20%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	9.07E-02	1.00E+00	1.00E-06	1.11E+04	1.01E-03	5.00E-03	20%
Typical	Aerial	Forested	Plane	N.American - child	9.62E-02	1.00E+00	1.00E-06	1.11E+04	1.07E-03	5.00E-03	21%
Typical	Aerial	Forested	Helicopter	N.American - child	8.67E-02	1.00E+00	1.00E-06	1.11E+04	9.65E-04	5.00E-03	19%
Typical	Ground	Not applicable	Low Boom	N.American - child	8.75E-02	1.00E+00	1.00E-06	1.11E+04	9.74E-04	5.00E-03	19%
Typical	Ground	Not applicable	High Boom	N.American - child	8.83E-02	1.00E+00	1.00E-06	1.11E+04	9.83E-04	5.00E-03	20%
Max	Aerial	Non-Forested	Plane	N.American - child	1.84E-01	1.00E+00	1.00E-06	1.11E+04	2.05E-03	5.00E-03	41%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.82E-01	1.00E+00	1.00E-06	1.11E+04	2.03E-03	5.00E-03	41%
Max	Aerial	Forested	Plane	N.American - child	1.93E-01	1.00E+00	1.00E-06	1.11E+04	2.15E-03	5.00E-03	43%
Max	Aerial	Forested	Helicopter	N.American - child	1.73E-01	1.00E+00	1.00E-06	1.11E+04	1.93E-03	5.00E-03	39%
Max	Ground	Not applicable	Low Boom	N.American - child	1.75E-01	1.00E+00	1.00E-06	1.11E+04	1.95E-03	5.00E-03	39%
Max	Ground	Not applicable	High Boom	N.American - child	1.77E-01	1.00E+00	1.00E-06	1.11E+04	1.97E-03	5.00E-03	39%
Typical	Aerial	Non-Forested	Plane	N.American - adult	9.17E-02	1.00E+00	1.00E-06	1.11E+04	1.02E-03	5.00E-03	20%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	9.07E-02	1.00E+00	1.00E-06	1.11E+04	1.01E-03	5.00E-03	20%
Typical	Aerial	Forested	Plane	N.American - adult	9.62E-02	1.00E+00	1.00E-06	1.11E+04	1.07E-03	5.00E-03	21%
Typical	Aerial	Forested	Helicopter	N.American - adult	8.67E-02	1.00E+00	1.00E-06	1.11E+04	9.65E-04	5.00E-03	19%
Typical	Ground	Not applicable	Low Boom	N.American - adult	8.75E-02	1.00E+00	1.00E-06	1.11E+04	9.74E-04	5.00E-03	19%
Typical	Ground	Not applicable	High Boom	N.American - adult	8.83E-02	1.00E+00	1.00E-06	1.11E+04	9.83E-04	5.00E-03	20%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.84E-01	1.00E+00	1.00E-06	1.11E+04	2.05E-03	5.00E-03	41%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.82E-01	1.00E+00	1.00E-06	1.11E+04	2.03E-03	5.00E-03	41%
Max	Aerial	Forested	Plane	N.American - adult	1.93E-01	1.00E+00	1.00E-06	1.11E+04	2.15E-03	5.00E-03	43%
Max	Aerial	Forested	Helicopter	N.American - adult	1.73E-01	1.00E+00	1.00E-06	1.11E+04	1.93E-03	5.00E-03	39%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.75E-01	1.00E+00	1.00E-06	1.11E+04	1.95E-03	5.00E-03	39%
Max	Ground	Not applicable	High Boom	N.American - adult	1.77E-01	1.00E+00	1.00E-06	1.11E+04	1.97E-03	5.00E-03	39%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	5.00E-03	63%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	5.00E-03	3.23%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	5.00E-03	62%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.63E-03	4.00E+00	6.50E-03	5.00E-03	**130%**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	5.00E-03	16.0%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	5.00E-03	25.4%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	5.00E-03	64%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	5.00E-03	3.25%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	5.00E-03	62%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.63E-03	4.03E+00	6.55E-03	5.00E-03	**131%**
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	5.00E-03	16.1%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	5.00E-03	25.6%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	5.00E-03	63%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	5.00E-03	3.23%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	5.00E-03	62%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.63E-03	4.00E+00	6.50E-03	5.00E-03	**130%**
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	5.00E-03	16.0%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	5.00E-03	25.4%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	5.00E-03	64%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	5.00E-03	3.25%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	5.00E-03	62%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.63E-03	4.03E+00	6.55E-03	5.00E-03	**131%**
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	5.00E-03	16.1%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	5.00E-03	25.6%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	4.65E+03	6.62E+04	--	--	46%	--	--	1.45E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	5.80E+03	8.27E+04	--	--	46%	--	--	1.56E+00
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	2.65E+03	3.78E+04	--	--	48%	--	--	1.13E+00
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	5.19E+04	7.39E+05	--	--	44%	--	--	2.19E+00
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	2.08E+04	2.96E+05	--	--	44%	--	--	2.03E+00
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	1.32E+04	1.87E+05	--	--	44%	--	--	1.90E+00
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	2.19E+03	3.12E+04	--	--	93%	--	--	**7.06E-01**
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	2.70E+03	3.84E+04	--	--	92%	--	--	**7.62E-01**
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	1.29E+03	1.83E+04	--	--	97%	--	--	**5.55E-01**
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	2.59E+04	3.70E+05	--	--	87%	--	--	1.09E+00
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	1.04E+04	1.49E+05	--	--	88.04%	--	--	1.02E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	6.58E+03	9.37E+04	--	--	89%	--	--	**9.51E-01**
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	1.78E+03	2.20E+04	--	--	**122%**	36.0%	--	**4.57E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	2.23E+03	2.75E+04	--	--	**121%**	28.9%	--	**5.04E-01**
Typical	Aerial	Forested	Plane	Berry - child	1.00E+03	1.02E+03	1.26E+04	--	--	**128%**	63%	--	**3.36E-01**
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+03	1.99E+04	2.46E+05	--	--	**116%**	3.23%	--	**8.05E-01**
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	7.97E+03	9.84E+04	--	--	**117%**	8.1%	--	**7.23E-01**
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	5.05E+03	6.24E+04	--	--	**118%**	12.7%	--	**6.58E-01**
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**8.40E+02**	1.04E+04	--	--	**246%**	77%	--	**2.22E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	1.04E+03	1.28E+04	--	--	**243%**	62%	--	**2.44E-01**
Max	Aerial	Forested	Plane	Berry - child	1.00E+03	**4.94E+02**	6.10E+03	--	--	**257%**	**130%**	--	**1.65E-01**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+03	9.96E+03	1.23E+05	--	--	**231%**	6.5%	--	**4.02E-01**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	4.01E+03	4.95E+04	--	--	**233%**	16.0%	--	**3.62E-01**
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	2.53E+03	3.12E+04	--	--	**235%**	25.4%	--	**3.29E-01**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	4.65E+03	3.85E+04	--	--	46%	36.2%	--	**9.39E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	5.80E+03	4.81E+04	--	--	46%	29.0%	--	1.06E+00
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+03	2.65E+03	2.20E+04	--	--	48%	64%	--	**6.48E-01**
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	5.19E+04	4.30E+05	--	--	44%	3.25%	--	2.04E+00
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	2.08E+04	1.72E+05	--	--	44%	8.1%	--	1.74E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	1.32E+04	1.09E+05	--	--	44%	12.8%	--	1.52E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	2.19E+03	1.81E+04	--	--	93%	77%	--	**4.53E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	2.70E+03	2.23E+04	--	--	92%	62%	--	**5.11E-01**
Max	Aerial	Forested	Plane	Berry - adult	1.00E+03	1.29E+03	1.07E+04	--	--	97%	**131%**	--	**3.17E-01**
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	2.59E+04	2.15E+05	--	--	87%	6.5%	--	1.02E+00
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	1.04E+04	8.65E+04	--	--	88.04%	16.1%	--	**8.70E-01**
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	6.58E+03	5.45E+04	--	--	89%	25.6%	--	**7.60E-01**

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	4.65E+03	6.62E+04	--	--	46%	--	1.4%	1.42E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	5.80E+03	8.27E+04	--	--	46%	--	1.4%	1.53E+00
Typical	Aerial	Forested	Plane	Angler	1.00E+03	2.65E+03	3.78E+04	--	--	48%	--	1.5%	1.11E+00
Typical	Aerial	Forested	Helicopter	Angler	1.00E+03	5.19E+04	7.39E+05	--	--	44%	--	1.3%	2.13E+00
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	2.08E+04	2.96E+05	--	--	44%	--	1.3%	1.98E+00
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	1.32E+04	1.87E+05	--	--	44%	--	1.4%	1.85E+00
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	2.19E+03	3.12E+04	--	--	93%	--	2.8%	**6.93E-01**
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	2.70E+03	3.84E+04	--	--	92%	--	2.8%	**7.46E-01**
Max	Aerial	Forested	Plane	Angler	1.00E+03	1.29E+03	1.83E+04	--	--	97%	--	3.0%	**5.46E-01**
Max	Aerial	Forested	Helicopter	Angler	1.00E+03	2.59E+04	3.70E+05	--	--	87%	--	2.7%	1.06E+00
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	1.04E+04	1.49E+05	--	--	88.04%	--	2.7%	**9.90E-01**
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	6.58E+03	9.37E+04	--	--	89%	--	2.7%	**9.27E-01**
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	1.78E+03	5.61E+03	--	--	--	--	--	1.35E+00
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	2.23E+03	7.00E+03	--	--	--	--	--	1.69E+00
Typical	Aerial	Forested	Plane	Res-child	1.00E+03	1.02E+03	3.20E+03	--	--	--	--	--	**7.72E-01**
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+03	1.99E+04	6.26E+04	--	--	--	--	--	1.51E+01
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	7.97E+03	2.51E+04	--	--	--	--	--	6.05E+00
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	5.05E+03	1.59E+04	--	--	--	--	--	3.83E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**8.40E+02**	2.64E+03	--	--	--	--	--	**6.37E-01**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	1.04E+03	3.25E+03	--	--	--	--	--	**7.85E-01**
Max	Aerial	Forested	Plane	Res-child	1.00E+03	**4.94E+02**	1.55E+03	--	--	--	--	--	**3.75E-01**
Max	Aerial	Forested	Helicopter	Res-child	1.00E+03	9.96E+03	3.13E+04	--	--	--	--	--	7.56E+00
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	4.01E+03	1.26E+04	--	--	--	--	--	3.04E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	2.53E+03	7.94E+03	--	--	--	--	--	1.92E+00
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	4.65E+03	9.81E+03	--	--	--	--	--	3.15E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	5.80E+03	1.22E+04	--	--	--	--	--	3.94E+00
Typical	Aerial	Forested	Plane	Res-adult	1.00E+03	2.65E+03	5.59E+03	--	--	--	--	--	1.80E+00
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+03	5.19E+04	1.10E+05	--	--	--	--	--	3.52E+01
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	2.08E+04	4.38E+04	--	--	--	--	--	1.41E+01
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	1.32E+04	2.78E+04	--	--	--	--	--	8.93E+00
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	2.19E+03	4.62E+03	--	--	--	--	--	1.48E+00
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	2.70E+03	5.69E+03	--	--	--	--	--	1.83E+00
Max	Aerial	Forested	Plane	Res-adult	1.00E+03	1.29E+03	2.72E+03	--	--	--	--	--	**8.73E-01**
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+03	2.59E+04	5.48E+04	--	--	--	--	--	1.76E+01
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	1.04E+04	2.20E+04	--	--	--	--	--	7.08E+00
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	6.58E+03	1.39E+04	--	--	--	--	--	4.46E+00

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	1.78E+03	1.84E+04	4.87E+06	--	61%	36.0%	20%	**5.58E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	2.23E+03	2.29E+04	4.93E+06	--	60%	28.9%	20%	**6.30E-01**
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+03	1.02E+03	1.05E+04	4.65E+06	--	64%	63%	21%	**3.90E-01**
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	1.99E+04	2.05E+05	5.16E+06	--	58%	3.23%	19%	1.17E+00
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	7.97E+03	8.20E+04	5.11E+06	--	58%	8.1%	19%	1.00E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	5.05E+03	5.20E+04	5.06E+06	--	59%	12.7%	20%	**8.85E-01**
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**8.40E+02**	8.64E+03	2.43E+06	--	**123%**	77%	41%	**2.70E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	1.04E+03	1.06E+04	2.45E+06	--	**121%**	62%	41%	**3.03E-01**
Max	Aerial	Forested	Plane	N.A.-child	1.00E+03	**4.94E+02**	5.08E+03	2.32E+06	--	**129%**	**130%**	43%	**1.91E-01**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	9.96E+03	1.02E+05	2.58E+06	--	**116%**	6.5%	39%	**5.82E-01**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	4.01E+03	4.12E+04	2.55E+06	--	**117%**	16.0%	39%	**5.02E-01**
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	2.53E+03	2.60E+04	2.53E+06	--	**118%**	25.4%	39%	**4.42E-01**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	4.65E+03	3.21E+04	9.47E+06	--	23%	36.2%	20%	**9.58E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	5.80E+03	4.01E+04	9.58E+06	--	23%	29.0%	20%	1.09E+00
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+03	2.65E+03	1.83E+04	9.03E+06	--	24%	64%	21%	**6.56E-01**
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	5.19E+04	3.58E+05	1.00E+07	--	22%	3.25%	19%	2.15E+00
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	2.08E+04	1.43E+05	9.93E+06	--	22%	8.1%	19%	1.81E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	1.32E+04	9.09E+04	9.84E+06	--	22%	12.8%	20%	1.58E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	2.19E+03	1.51E+04	4.72E+06	--	46%	77%	41%	**4.62E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	2.70E+03	1.86E+04	4.77E+06	--	46%	62%	41%	**5.23E-01**
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+03	1.29E+03	8.89E+03	4.50E+06	--	49%	**131%**	43%	**3.21E-01**
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	2.59E+04	1.79E+05	5.01E+06	--	44%	6.5%	39%	1.07E+00
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	1.04E+04	7.21E+04	4.96E+06	--	44%	16.1%	39%	**9.08E-01**
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	6.58E+03	4.54E+04	4.92E+06	--	44%	25.6%	39%	**7.89E-01**

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	1.27E+07	2.04E+04	--	--	--	2.04E+01
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.28E+07	2.07E+04	--	--	--	2.06E+01
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	1.21E+07	1.95E+04	--	--	--	1.95E+01
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.34E+07	2.16E+04	--	--	--	2.16E+01
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	1.33E+07	2.14E+04	--	--	--	2.14E+01
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.32E+07	2.12E+04	--	--	--	2.12E+01
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	6.31E+06	1.02E+04	--	--	--	1.02E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	6.38E+06	1.03E+04	--	--	--	1.03E+01
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	6.02E+06	9.72E+03	--	--	--	9.70E+00
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	6.70E+06	1.08E+04	--	--	--	1.08E+01
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	6.64E+06	1.07E+04	--	--	--	1.07E+01
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	6.58E+06	1.06E+04	--	--	--	1.06E+01
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.46E+07	1.83E+05	--	--	--	1.82E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.49E+07	1.85E+05	--	--	--	1.84E+02
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.35E+07	1.75E+05	--	--	--	1.73E+02
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.61E+07	1.94E+05	--	--	--	1.92E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	2.58E+07	1.92E+05	--	--	--	1.91E+02
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	2.56E+07	1.90E+05	--	--	--	1.89E+02
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.23E+07	9.12E+04	--	--	--	9.05E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.24E+07	9.22E+04	--	--	--	9.16E+01
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.17E+07	8.71E+04	--	--	--	8.64E+01
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.30E+07	9.69E+04	--	--	--	9.62E+01
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	1.29E+07	9.60E+04	--	--	--	9.53E+01
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	1.28E+07	9.51E+04	--	--	--	9.44E+01

--Receptor not exposed via this pathway.
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Intermediate-term Exposure

Herbicide: **2,4-D (Land; Woody Species)**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a)						Maximum Application Rate Scenario ARIs (a)					
AgDrift Scenario:	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	1.4	2	1.1	2	2	2	**0.7**	**0.8**	**0.6**	1.1	1.02	**0.95**
Berry Picker (Child)	**0.5**	**0.5**	**0.3**	**0.8**	**0.7**	**0.7**	**0.2**	**0.2**	**0.2**	**0.4**	**0.4**	**0.3**
Berry Picker (Adult)	**0.9**	1.1	**0.6**	2	2	1.5	**0.5**	**0.5**	**0.3**	1.02	**0.9**	**0.8**
Angler (Adult)	1.4	1.5	1.1	2	2	2	**0.7**	**0.7**	**0.5**	1.1	**0.99**	**0.9**
Residential (Child)	1.4	2	**0.8**	15	6	4	**0.6**	**0.8**	**0.4**	8	3	1.9
Residential (Adult)	3.2	4	1.8	35	14	9	1.5	2	**0.9**	18	7	4.5
Native American (Child)	**0.6**	**0.6**	**0.4**	1.2	1.004	**0.9**	**0.3**	**0.3**	**0.2**	**0.6**	**0.5**	**0.4**
Native American (Adult)	**0.96**	1.1	**0.7**	2	2	2	**0.5**	**0.5**	**0.3**	1.1	**0.9**	**0.8**
Swimmer (Child)	20	21	19	22	21	21	10	10	10	11	11	11
Swimmer (Adult)	182	184	173	192	191	189	91	92	86	96	95	94

ARI - Aggregate Risk Index. Values less than one represent a level of concern and are highlighted.

(a) - Application rates are shown on Table 4-1 and are the same for each program.

(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.

(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	1.63E-03	7.17E+01	1.17E-02	5.00E+00	**4.29E+02**
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	8.06E-05	7.17E+01	5.78E-04	5.00E+00	8.65E+03
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	5.00E+00	**5.95E+02**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	5.00E+00	**7.43E+02**
Typical	Aerial	Forested	Plane	Berry - child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	5.00E+00	**3.39E+02**
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	5.00E+00	6.64E+03
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	5.00E+00	2.66E+03
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	5.00E+00	1.68E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	5.00E+00	**2.80E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	5.00E+00	**3.45E+02**
Max	Aerial	Forested	Plane	Berry - child	1.00E-01	1.63E-03	1.87E+02	3.04E-02	5.00E+00	**1.65E+02**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E-01	8.06E-05	1.87E+02	1.51E-03	5.00E+00	3.32E+03
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	5.00E+00	1.34E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	5.00E+00	**8.42E+02**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Aerial	Forested	Plane	Berry - adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Aerial	Forested	Plane	Berry - adult	1.00E-01	1.63E-03	7.17E+01	1.17E-02	5.00E+00	**4.29E+02**
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	8.06E-05	7.17E+01	5.78E-04	5.00E+00	8.65E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Aerial	Forested	Plane	Angler	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Typical	Aerial	Forested	Helicopter	Angler	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Aerial	Forested	Plane	Angler	1.00E-01	1.63E-03	7.17E+01	1.17E-02	5.00E+00	**4.29E+02**
Max	Aerial	Forested	Helicopter	Angler	1.00E-01	8.06E-05	7.17E+01	5.78E-04	5.00E+00	8.65E+03
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	5.00E+00	**5.95E+02**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	5.00E+00	**7.43E+02**
Typical	Aerial	Forested	Plane	Res-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	5.00E+00	**3.39E+02**
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	5.00E+00	6.64E+03
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	5.00E+00	2.66E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	5.00E+00	1.68E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	5.00E+00	**2.80E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	5.00E+00	**3.45E+02**
Max	Aerial	Forested	Plane	Res-child	1.00E-01	1.63E-03	1.87E+02	3.04E-02	5.00E+00	**1.65E+02**
Max	Aerial	Forested	Helicopter	Res-child	1.00E-01	8.06E-05	1.87E+02	1.51E-03	5.00E+00	3.32E+03
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	5.00E+00	1.34E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	5.00E+00	**8.42E+02**
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Aerial	Forested	Plane	Res-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Aerial	Forested	Plane	Res-adult	1.00E-01	1.63E-03	7.17E+01	1.17E-02	5.00E+00	**4.29E+02**
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-01	8.06E-05	7.17E+01	5.78E-04	5.00E+00	8.65E+03
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	5.00E+00	**5.95E+02**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	5.00E+00	**7.43E+02**
Typical	Aerial	Forested	Plane	N.A.-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	5.00E+00	**3.39E+02**
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	5.00E+00	6.64E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	5.00E+00	2.66E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	5.00E+00	1.68E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	5.00E+00	**2.80E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	5.00E+00	**3.45E+02**
Max	Aerial	Forested	Plane	N.A.-child	1.00E-01	1.63E-03	1.87E+02	3.04E-02	5.00E+00	**1.65E+02**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	8.06E-05	1.87E+02	1.51E-03	5.00E+00	3.32E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	5.00E+00	1.34E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	5.00E+00	**8.42E+02**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	5.00E+00	**8.83E+02**
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	5.00E+00	1.73E+04
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Aerial	Forested	Plane	N.A.-adult	1.00E-01	1.63E-03	7.17E+01	1.17E-02	5.00E+00	**4.29E+02**
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	8.06E-05	7.17E+01	5.78E-04	5.00E+00	8.65E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	5.00E+00	2.21E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	5.00E+00	2.76E+04
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	5.00E+00	1.26E+04
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	5.00E+00	2.46E+05
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	5.00E+00	9.86E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	5.00E+00	6.25E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	9.56E-04	2.39E-04	2.01E+01	4.81E-04	5.00E+00	1.04E+04
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	7.76E-04	1.94E-04	2.01E+01	3.91E-04	5.00E+00	1.28E+04
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	1.63E-03	4.07E-04	2.01E+01	8.18E-04	5.00E+00	6.11E+03
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	8.06E-05	2.02E-05	2.01E+01	4.06E-05	5.00E+00	1.23E+05
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	2.00E-04	5.01E-05	2.01E+01	1.01E-04	5.00E+00	4.96E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	3.18E-04	7.95E-05	2.01E+01	1.60E-04	5.00E+00	3.12E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	6.05E+01	6.81E-04	5.00E+00	7.34E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	6.05E+01	5.45E-04	5.00E+00	9.17E+03
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	1.00E-01	7.90E-04	1.97E-04	6.05E+01	1.19E-03	5.00E+00	4.19E+03
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	4.03E-05	1.01E-05	6.05E+01	6.10E-05	5.00E+00	8.20E+04
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	6.05E+01	1.52E-04	5.00E+00	3.28E+04
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	6.05E+01	2.41E-04	5.00E+00	2.08E+04
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	9.56E-04	2.39E-04	6.05E+01	1.45E-03	5.00E+00	3.46E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	7.76E-04	1.94E-04	6.05E+01	1.17E-03	5.00E+00	4.26E+03
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	1.00E-01	1.63E-03	4.07E-04	6.05E+01	2.46E-03	5.00E+00	2.03E+03
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	8.06E-05	2.02E-05	6.05E+01	1.22E-04	5.00E+00	4.10E+04
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	2.00E-04	5.01E-05	6.05E+01	3.03E-04	5.00E+00	1.65E+04
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	3.18E-04	7.95E-05	6.05E+01	4.81E-04	5.00E+00	1.04E+04
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	3.46E+01	3.89E-04	5.00E+00	1.28E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	3.46E+01	3.12E-04	5.00E+00	1.60E+04
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.00E-01	7.90E-04	1.97E-04	3.46E+01	6.83E-04	5.00E+00	7.32E+03
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	4.03E-05	1.01E-05	3.46E+01	3.49E-05	5.00E+00	1.43E+05
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	3.46E+01	8.72E-05	5.00E+00	5.74E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	3.46E+01	1.38E-04	5.00E+00	3.64E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	9.56E-04	2.39E-04	3.46E+01	8.27E-04	5.00E+00	6.04E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	7.76E-04	1.94E-04	3.46E+01	6.71E-04	5.00E+00	7.45E+03
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.00E-01	1.63E-03	4.07E-04	3.46E+01	1.41E-03	5.00E+00	3.56E+03
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	8.06E-05	2.02E-05	3.46E+01	6.97E-05	5.00E+00	7.17E+04
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	2.00E-04	5.01E-05	3.46E+01	1.73E-04	5.00E+00	2.88E+04
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	3.18E-04	7.95E-05	3.46E+01	2.75E-04	5.00E+00	1.82E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	5.00E+00	2.21E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	5.00E+00	2.76E+04
Typical	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	5.00E+00	1.26E+04
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	5.00E+00	2.46E+05
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	5.00E+00	9.86E+04
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	5.00E+00	6.25E+04
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	9.56E-04	2.39E-04	2.01E+01	4.81E-04	5.00E+00	1.04E+04
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	7.76E-04	1.94E-04	2.01E+01	3.91E-04	5.00E+00	1.28E+04
Max	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	1.63E-03	4.07E-04	2.01E+01	8.18E-04	5.00E+00	6.11E+03
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	8.06E-05	2.02E-05	2.01E+01	4.06E-05	5.00E+00	1.23E+05
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	2.00E-04	5.01E-05	2.01E+01	1.01E-04	5.00E+00	4.96E+04
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	3.18E-04	7.95E-05	2.01E+01	1.60E-04	5.00E+00	3.12E+04
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	4.50E-04	4.50E-06	5.94E+03	2.67E-03	5.00E+00	1.87E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	3.61E-04	3.61E-06	5.94E+03	2.14E-03	5.00E+00	2.33E+03
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	7.90E-04	7.90E-06	5.94E+03	4.69E-03	5.00E+00	1.07E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.00E-01	4.03E-05	4.03E-07	5.94E+03	2.40E-04	5.00E+00	2.09E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	1.01E-04	1.01E-06	5.94E+03	5.99E-04	5.00E+00	8.35E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	1.59E-04	1.59E-06	5.94E+03	9.45E-04	5.00E+00	5.29E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	9.56E-04	9.56E-06	5.94E+03	5.68E-03	5.00E+00	**8.80E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	7.76E-04	7.76E-06	5.94E+03	4.61E-03	5.00E+00	1.08E+03
Max	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	1.63E-03	1.63E-05	5.94E+03	9.66E-03	5.00E+00	**5.18E+02**
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.00E-01	8.06E-05	8.06E-07	5.94E+03	4.79E-04	5.00E+00	1.04E+04
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	2.00E-04	2.00E-06	5.94E+03	1.19E-03	5.00E+00	4.20E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	3.18E-04	3.18E-06	5.94E+03	1.89E-03	5.00E+00	2.65E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	4.50E-04	4.50E-06	3.40E+03	1.53E-03	5.00E+00	3.27E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	3.61E-04	3.61E-06	3.40E+03	1.22E-03	5.00E+00	4.08E+03
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	1.00E-01	7.90E-04	7.90E-06	3.40E+03	2.68E-03	5.00E+00	1.86E+03
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	4.03E-05	4.03E-07	3.40E+03	1.37E-04	5.00E+00	3.65E+04
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	1.01E-04	1.01E-06	3.40E+03	3.42E-04	5.00E+00	1.46E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	1.59E-04	1.59E-06	3.40E+03	5.40E-04	5.00E+00	9.26E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	9.56E-04	9.56E-06	3.40E+03	3.25E-03	5.00E+00	1.54E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	7.76E-04	7.76E-06	3.40E+03	2.64E-03	5.00E+00	1.90E+03
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	1.00E-01	1.63E-03	1.63E-05	3.40E+03	5.52E-03	5.00E+00	**9.05E+02**
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	8.06E-05	8.06E-07	3.40E+03	2.74E-04	5.00E+00	1.83E+04
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	2.00E-04	2.00E-06	3.40E+03	6.81E-04	5.00E+00	7.34E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	3.18E-04	3.18E-06	3.40E+03	1.08E-03	5.00E+00	4.63E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	7.26E+01	8.17E-04	5.00E+00	6.12E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	7.26E+01	6.55E-04	5.00E+00	7.64E+03
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.00E-01	7.90E-04	1.97E-04	7.26E+01	1.43E-03	5.00E+00	3.49E+03
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	4.03E-05	1.01E-05	7.26E+01	7.32E-05	5.00E+00	6.83E+04
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	7.26E+01	1.83E-04	5.00E+00	2.73E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	7.26E+01	2.89E-04	5.00E+00	1.73E+04
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	9.56E-04	2.39E-04	7.26E+01	1.74E-03	5.00E+00	2.88E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	7.76E-04	1.94E-04	7.26E+01	1.41E-03	5.00E+00	3.55E+03
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.00E-01	1.63E-03	4.07E-04	7.26E+01	2.95E-03	5.00E+00	1.69E+03
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	8.06E-05	2.02E-05	7.26E+01	1.46E-04	5.00E+00	3.42E+04
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	2.00E-04	5.01E-05	7.26E+01	3.64E-04	5.00E+00	1.37E+04
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	3.18E-04	7.95E-05	7.26E+01	5.77E-04	5.00E+00	8.66E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	4.15E+01	4.67E-04	5.00E+00	1.07E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	4.15E+01	3.74E-04	5.00E+00	1.34E+04
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	7.90E-04	1.97E-04	4.15E+01	8.19E-04	5.00E+00	6.10E+03
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	4.03E-05	1.01E-05	4.15E+01	4.18E-05	5.00E+00	1.19E+05
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	4.15E+01	1.05E-04	5.00E+00	4.78E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	4.15E+01	1.65E-04	5.00E+00	3.03E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	9.56E-04	2.39E-04	4.15E+01	9.93E-04	5.00E+00	5.04E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	7.76E-04	1.94E-04	4.15E+01	8.05E-04	5.00E+00	6.21E+03
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	1.63E-03	4.07E-04	4.15E+01	1.69E-03	5.00E+00	2.96E+03
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	8.06E-05	2.02E-05	4.15E+01	8.37E-05	5.00E+00	5.97E+04
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	2.00E-04	5.01E-05	4.15E+01	2.08E-04	5.00E+00	2.40E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	3.18E-04	7.95E-05	4.15E+01	3.30E-04	5.00E+00	1.51E+04

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.48E-02	1.00E-03	4.40E+02	1.92E-07	1.50E+01	7.83E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	1.38E-02	1.00E-03	4.40E+02	1.78E-07	1.50E+01	8.42E+07
Typical	Aerial	Forested	Plane	Swimmer-child	2.93E-05	1.93E-02	1.00E-03	4.40E+02	2.50E-07	1.50E+01	6.01E+07
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	9.80E-03	1.00E-03	4.40E+02	1.27E-07	1.50E+01	1.19E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	1.06E-02	1.00E-03	4.40E+02	1.37E-07	1.50E+01	1.10E+08
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	1.14E-02	1.00E-03	4.40E+02	1.48E-07	1.50E+01	1.02E+08
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	3.04E-02	1.00E-03	4.40E+02	3.92E-07	1.50E+01	3.82E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	2.83E-02	1.00E-03	4.40E+02	3.66E-07	1.50E+01	4.10E+07
Max	Aerial	Forested	Plane	Swimmer-child	2.93E-05	3.92E-02	1.00E-03	4.40E+02	5.06E-07	1.50E+01	2.96E+07
Max	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	1.96E-02	1.00E-03	4.40E+02	2.54E-07	1.50E+01	5.92E+07
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	2.12E-02	1.00E-03	4.40E+02	2.74E-07	1.50E+01	5.47E+07
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	2.29E-02	1.00E-03	4.40E+02	2.95E-07	1.50E+01	5.08E+07
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.48E-02	1.00E-03	2.26E+02	9.86E-08	1.50E+01	1.52E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	1.38E-02	1.00E-03	2.26E+02	9.17E-08	1.50E+01	1.64E+08
Typical	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	1.93E-02	1.00E-03	2.26E+02	1.29E-07	1.50E+01	1.17E+08
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	9.80E-03	1.00E-03	2.26E+02	6.51E-08	1.50E+01	2.30E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	1.06E-02	1.00E-03	2.26E+02	7.05E-08	1.50E+01	2.13E+08
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	1.14E-02	1.00E-03	2.26E+02	7.60E-08	1.50E+01	1.97E+08
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	3.04E-02	1.00E-03	2.26E+02	2.02E-07	1.50E+01	7.43E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	2.83E-02	1.00E-03	2.26E+02	1.88E-07	1.50E+01	7.97E+07
Max	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	3.92E-02	1.00E-03	2.26E+02	2.60E-07	1.50E+01	5.76E+07
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	1.96E-02	1.00E-03	2.26E+02	1.30E-07	1.50E+01	1.15E+08
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	2.12E-02	1.00E-03	2.26E+02	1.41E-07	1.50E+01	1.06E+08
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	2.29E-02	1.00E-03	2.26E+02	1.52E-07	1.50E+01	9.87E+07
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.48E-02	1.00E-03	1.14E+03	4.98E-07	1.50E+01	3.01E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	1.38E-02	1.00E-03	1.14E+03	4.63E-07	1.50E+01	3.24E+07
Typical	Aerial	Forested	Plane	N.American-child	2.93E-05	1.93E-02	1.00E-03	1.14E+03	6.49E-07	1.50E+01	2.31E+07
Typical	Aerial	Forested	Helicopter	N.American-child	2.93E-05	9.80E-03	1.00E-03	1.14E+03	3.29E-07	1.50E+01	4.56E+07
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	1.06E-02	1.00E-03	1.14E+03	3.56E-07	1.50E+01	4.21E+07
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	1.14E-02	1.00E-03	1.14E+03	3.84E-07	1.50E+01	3.91E+07
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	3.04E-02	1.00E-03	1.14E+03	1.02E-06	1.50E+01	1.47E+07
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	2.83E-02	1.00E-03	1.14E+03	9.51E-07	1.50E+01	1.58E+07
Max	Aerial	Forested	Plane	N.American-child	2.93E-05	3.92E-02	1.00E-03	1.14E+03	1.32E-06	1.50E+01	1.14E+07
Max	Aerial	Forested	Helicopter	N.American-child	2.93E-05	1.96E-02	1.00E-03	1.14E+03	6.59E-07	1.50E+01	2.28E+07
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	2.12E-02	1.00E-03	1.14E+03	7.12E-07	1.50E+01	2.11E+07
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	2.29E-02	1.00E-03	1.14E+03	7.68E-07	1.50E+01	1.95E+07

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.48E-02	1.00E-03	5.89E+02	2.56E-07	1.50E+01	5.85E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	1.38E-02	1.00E-03	5.89E+02	2.38E-07	1.50E+01	6.29E+07
Typical	Aerial	Forested	Plane	N.American-adult	2.93E-05	1.93E-02	1.00E-03	5.89E+02	3.34E-07	1.50E+01	4.49E+07
Typical	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	9.80E-03	1.00E-03	5.89E+02	1.69E-07	1.50E+01	8.86E+07
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	1.06E-02	1.00E-03	5.89E+02	1.83E-07	1.50E+01	8.19E+07
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	1.14E-02	1.00E-03	5.89E+02	1.98E-07	1.50E+01	7.59E+07
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	3.04E-02	1.00E-03	5.89E+02	5.25E-07	1.50E+01	2.86E+07
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	2.83E-02	1.00E-03	5.89E+02	4.89E-07	1.50E+01	3.07E+07
Max	Aerial	Forested	Plane	N.American-adult	2.93E-05	3.92E-02	1.00E-03	5.89E+02	6.77E-07	1.50E+01	2.22E+07
Max	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	1.96E-02	1.00E-03	5.89E+02	3.39E-07	1.50E+01	4.42E+07
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	2.12E-02	1.00E-03	5.89E+02	3.67E-07	1.50E+01	4.09E+07
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	2.29E-02	1.00E-03	5.89E+02	3.95E-07	1.50E+01	3.80E+07

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.48E-02	8.00E-03	1.19E-04	1.50E+01	1.26E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.38E-02	8.00E-03	1.10E-04	1.50E+01	1.36E+05
Typical	Aerial	Forested	Plane	Swimmer-child	1.93E-02	8.00E-03	1.55E-04	1.50E+01	9.69E+04
Typical	Aerial	Forested	Helicopter	Swimmer-child	9.80E-03	8.00E-03	7.84E-05	1.50E+01	1.91E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.06E-02	8.00E-03	8.49E-05	1.50E+01	1.77E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.14E-02	8.00E-03	9.15E-05	1.50E+01	1.64E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	3.04E-02	8.00E-03	2.43E-04	1.50E+01	6.17E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.83E-02	8.00E-03	2.27E-04	1.50E+01	6.62E+04
Max	Aerial	Forested	Plane	Swimmer-child	3.92E-02	8.00E-03	3.14E-04	1.50E+01	4.78E+04
Max	Aerial	Forested	Helicopter	Swimmer-child	1.96E-02	8.00E-03	1.57E-04	1.50E+01	9.54E+04
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.12E-02	8.00E-03	1.70E-04	1.50E+01	8.83E+04
Max	Ground	Not applicable	High Boom	Swimmer-child	2.29E-02	8.00E-03	1.83E-04	1.50E+01	8.20E+04
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.48E-02	8.93E-04	1.33E-05	1.50E+01	1.13E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.38E-02	8.93E-04	1.23E-05	1.50E+01	1.22E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	1.93E-02	8.93E-04	1.73E-05	1.50E+01	8.68E+05
Typical	Aerial	Forested	Helicopter	Swimmer-adult	9.80E-03	8.93E-04	8.75E-06	1.50E+01	1.71E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.06E-02	8.93E-04	9.47E-06	1.50E+01	1.58E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.14E-02	8.93E-04	1.02E-05	1.50E+01	1.47E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	3.04E-02	8.93E-04	2.71E-05	1.50E+01	5.53E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.83E-02	8.93E-04	2.53E-05	1.50E+01	5.93E+05
Max	Aerial	Forested	Plane	Swimmer-adult	3.92E-02	8.93E-04	3.50E-05	1.50E+01	4.29E+05
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.96E-02	8.93E-04	1.75E-05	1.50E+01	8.55E+05
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.12E-02	8.93E-04	1.90E-05	1.50E+01	7.91E+05
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.29E-02	8.93E-04	2.04E-05	1.50E+01	7.34E+05

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.48E-02	2.52E-02	3.74E-04	5.00E-03	7.5%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.38E-02	2.52E-02	3.47E-04	5.00E-03	6.9%
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.93E-02	2.52E-02	4.87E-04	5.00E-03	10%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	9.80E-03	2.52E-02	2.47E-04	5.00E-03	4.9%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.06E-02	2.52E-02	2.67E-04	5.00E-03	5.3%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.14E-02	2.52E-02	2.88E-04	5.00E-03	6%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	3.04E-02	2.52E-02	7.65E-04	5.00E-03	15%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.83E-02	2.52E-02	7.13E-04	5.00E-03	14%
Max	Aerial	Forested	Plane	Hiker/Hunter	3.92E-02	2.52E-02	9.86E-04	5.00E-03	20%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.96E-02	2.52E-02	4.94E-04	5.00E-03	10%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.12E-02	2.52E-02	5.34E-04	5.00E-03	11%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.29E-02	2.52E-02	5.75E-04	5.00E-03	12%
Typical	Aerial	Non-Forested	Plane	Berry - child	1.48E-02	6.67E-02	9.90E-04	5.00E-03	20%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.38E-02	6.67E-02	9.21E-04	5.00E-03	18%
Typical	Aerial	Forested	Plane	Berry - child	1.93E-02	6.67E-02	1.29E-03	5.00E-03	26%
Typical	Aerial	Forested	Helicopter	Berry - child	9.80E-03	6.67E-02	6.54E-04	5.00E-03	13%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.06E-02	6.67E-02	7.07E-04	5.00E-03	14%
Typical	Ground	Not applicable	High Boom	Berry - child	1.14E-02	6.67E-02	7.62E-04	5.00E-03	15%
Max	Aerial	Non-Forested	Plane	Berry - child	3.04E-02	6.67E-02	2.03E-03	5.00E-03	41%
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.83E-02	6.67E-02	1.89E-03	5.00E-03	38%
Max	Aerial	Forested	Plane	Berry - child	3.92E-02	6.67E-02	2.61E-03	5.00E-03	52%
Max	Aerial	Forested	Helicopter	Berry - child	1.96E-02	6.67E-02	1.31E-03	5.00E-03	26%
Max	Ground	Not applicable	Low Boom	Berry - child	2.12E-02	6.67E-02	1.42E-03	5.00E-03	28%
Max	Ground	Not applicable	High Boom	Berry - child	2.29E-02	6.67E-02	1.53E-03	5.00E-03	31%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.48E-02	2.52E-02	3.74E-04	5.00E-03	7.5%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.38E-02	2.52E-02	3.47E-04	5.00E-03	6.9%
Typical	Aerial	Forested	Plane	Berry - adult	1.93E-02	2.52E-02	4.87E-04	5.00E-03	10%
Typical	Aerial	Forested	Helicopter	Berry - adult	9.80E-03	2.52E-02	2.47E-04	5.00E-03	4.9%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.06E-02	2.52E-02	2.67E-04	5.00E-03	5.3%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.14E-02	2.52E-02	2.88E-04	5.00E-03	6%
Max	Aerial	Non-Forested	Plane	Berry - adult	3.04E-02	2.52E-02	7.65E-04	5.00E-03	15%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.83E-02	2.52E-02	7.13E-04	5.00E-03	14%
Max	Aerial	Forested	Plane	Berry - adult	3.92E-02	2.52E-02	9.86E-04	5.00E-03	20%
Max	Aerial	Forested	Helicopter	Berry - adult	1.96E-02	2.52E-02	4.94E-04	5.00E-03	10%
Max	Ground	Not applicable	Low Boom	Berry - adult	2.12E-02	2.52E-02	5.34E-04	5.00E-03	11%
Max	Ground	Not applicable	High Boom	Berry - adult	2.29E-02	2.52E-02	5.75E-04	5.00E-03	12%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.48E-02	2.52E-02	3.74E-04	5.00E-03	7.5%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.38E-02	2.52E-02	3.47E-04	5.00E-03	6.9%
Typical	Aerial	Forested	Plane	Angler	1.93E-02	2.52E-02	4.87E-04	5.00E-03	10%
Typical	Aerial	Forested	Helicopter	Angler	9.80E-03	2.52E-02	2.47E-04	5.00E-03	4.9%
Typical	Ground	Not applicable	Low Boom	Angler	1.06E-02	2.52E-02	2.67E-04	5.00E-03	5.3%
Typical	Ground	Not applicable	High Boom	Angler	1.14E-02	2.52E-02	2.88E-04	5.00E-03	6%
Max	Aerial	Non-Forested	Plane	Angler	3.04E-02	2.52E-02	7.65E-04	5.00E-03	15%
Max	Aerial	Non-Forested	Helicopter	Angler	2.83E-02	2.52E-02	7.13E-04	5.00E-03	14%
Max	Aerial	Forested	Plane	Angler	3.92E-02	2.52E-02	9.86E-04	5.00E-03	20%
Max	Aerial	Forested	Helicopter	Angler	1.96E-02	2.52E-02	4.94E-04	5.00E-03	10%
Max	Ground	Not applicable	Low Boom	Angler	2.12E-02	2.52E-02	5.34E-04	5.00E-03	11%
Max	Ground	Not applicable	High Boom	Angler	2.29E-02	2.52E-02	5.75E-04	5.00E-03	12%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.48E-02	3.33E-02	4.95E-04	5.00E-03	10%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.38E-02	3.33E-02	4.60E-04	5.00E-03	9.2%
Typical	Aerial	Forested	Plane	N.American - child	1.93E-02	3.33E-02	6.45E-04	5.00E-03	13%
Typical	Aerial	Forested	Helicopter	N.American - child	9.80E-03	3.33E-02	3.27E-04	5.00E-03	6.5%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.06E-02	3.33E-02	3.54E-04	5.00E-03	7.1%
Typical	Ground	Not applicable	High Boom	N.American - child	1.14E-02	3.33E-02	3.81E-04	5.00E-03	8%
Max	Aerial	Non-Forested	Plane	N.American - child	3.04E-02	3.33E-02	1.01E-03	5.00E-03	20%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.83E-02	3.33E-02	9.45E-04	5.00E-03	19%
Max	Aerial	Forested	Plane	N.American - child	3.92E-02	3.33E-02	1.31E-03	5.00E-03	26%
Max	Aerial	Forested	Helicopter	N.American - child	1.96E-02	3.33E-02	6.55E-04	5.00E-03	13%
Max	Ground	Not applicable	Low Boom	N.American - child	2.12E-02	3.33E-02	7.08E-04	5.00E-03	14%
Max	Ground	Not applicable	High Boom	N.American - child	2.29E-02	3.33E-02	7.63E-04	5.00E-03	15%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.48E-02	1.26E-02	1.87E-04	5.00E-03	3.7%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.38E-02	1.26E-02	1.74E-04	5.00E-03	3.5%
Typical	Aerial	Forested	Plane	N.American - adult	1.93E-02	1.26E-02	2.43E-04	5.00E-03	4.9%
Typical	Aerial	Forested	Helicopter	N.American - adult	9.80E-03	1.26E-02	1.23E-04	5.00E-03	2.5%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.06E-02	1.26E-02	1.33E-04	5.00E-03	2.7%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.14E-02	1.26E-02	1.44E-04	5.00E-03	2.9%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.04E-02	1.26E-02	3.82E-04	5.00E-03	7.6%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.83E-02	1.26E-02	3.56E-04	5.00E-03	7.1%
Max	Aerial	Forested	Plane	N.American - adult	3.92E-02	1.26E-02	4.93E-04	5.00E-03	10%
Max	Aerial	Forested	Helicopter	N.American - adult	1.96E-02	1.26E-02	2.47E-04	5.00E-03	4.9%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.12E-02	1.26E-02	2.67E-04	5.00E-03	5.3%
Max	Ground	Not applicable	High Boom	N.American - adult	2.29E-02	1.26E-02	2.88E-04	5.00E-03	5.8%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Fish
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.48E-02	1.00E+00	1.00E-06	7.67E+02	1.14E-05	5.00E-03	0.23%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.38E-02	1.00E+00	1.00E-06	7.67E+02	1.06E-05	5.00E-03	0.21%
Typical	Aerial	Forested	Plane	Angler	1.93E-02	1.00E+00	1.00E-06	7.67E+02	1.48E-05	5.00E-03	0.30%
Typical	Aerial	Forested	Helicopter	Angler	9.80E-03	1.00E+00	1.00E-06	7.67E+02	7.52E-06	5.00E-03	0.15%
Typical	Ground	Not applicable	Low Boom	Angler	1.06E-02	1.00E+00	1.00E-06	7.67E+02	8.14E-06	5.00E-03	0.16%
Typical	Ground	Not applicable	High Boom	Angler	1.14E-02	1.00E+00	1.00E-06	7.67E+02	8.78E-06	5.00E-03	0.18%
Max	Aerial	Non-Forested	Plane	Angler	3.04E-02	1.00E+00	1.00E-06	7.67E+02	2.33E-05	5.00E-03	0.47%
Max	Aerial	Non-Forested	Helicopter	Angler	2.83E-02	1.00E+00	1.00E-06	7.67E+02	2.17E-05	5.00E-03	0.43%
Max	Aerial	Forested	Plane	Angler	3.92E-02	1.00E+00	1.00E-06	7.67E+02	3.01E-05	5.00E-03	0.60%
Max	Aerial	Forested	Helicopter	Angler	1.96E-02	1.00E+00	1.00E-06	7.67E+02	1.51E-05	5.00E-03	0.30%
Max	Ground	Not applicable	Low Boom	Angler	2.12E-02	1.00E+00	1.00E-06	7.67E+02	1.63E-05	5.00E-03	0.33%
Max	Ground	Not applicable	High Boom	Angler	2.29E-02	1.00E+00	1.00E-06	7.67E+02	1.76E-05	5.00E-03	0.35%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.48E-02	1.00E+00	1.00E-06	1.11E+04	1.65E-04	5.00E-03	3.3%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.38E-02	1.00E+00	1.00E-06	1.11E+04	1.54E-04	5.00E-03	3.1%
Typical	Aerial	Forested	Plane	N.American - child	1.93E-02	1.00E+00	1.00E-06	1.11E+04	2.15E-04	5.00E-03	4.3%
Typical	Aerial	Forested	Helicopter	N.American - child	9.80E-03	1.00E+00	1.00E-06	1.11E+04	1.09E-04	5.00E-03	2.2%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.06E-02	1.00E+00	1.00E-06	1.11E+04	1.18E-04	5.00E-03	2.4%
Typical	Ground	Not applicable	High Boom	N.American - child	1.14E-02	1.00E+00	1.00E-06	1.11E+04	1.27E-04	5.00E-03	2.5%
Max	Aerial	Non-Forested	Plane	N.American - child	3.04E-02	1.00E+00	1.00E-06	1.11E+04	3.38E-04	5.00E-03	6.8%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.83E-02	1.00E+00	1.00E-06	1.11E+04	3.15E-04	5.00E-03	6.3%
Max	Aerial	Forested	Plane	N.American - child	3.92E-02	1.00E+00	1.00E-06	1.11E+04	4.36E-04	5.00E-03	9%
Max	Aerial	Forested	Helicopter	N.American - child	1.96E-02	1.00E+00	1.00E-06	1.11E+04	2.19E-04	5.00E-03	4.4%
Max	Ground	Not applicable	Low Boom	N.American - child	2.12E-02	1.00E+00	1.00E-06	1.11E+04	2.36E-04	5.00E-03	4.7%
Max	Ground	Not applicable	High Boom	N.American - child	2.29E-02	1.00E+00	1.00E-06	1.11E+04	2.55E-04	5.00E-03	5.1%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.48E-02	1.00E+00	1.00E-06	1.11E+04	1.65E-04	5.00E-03	3.3%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.38E-02	1.00E+00	1.00E-06	1.11E+04	1.54E-04	5.00E-03	3.1%
Typical	Aerial	Forested	Plane	N.American - adult	1.93E-02	1.00E+00	1.00E-06	1.11E+04	2.15E-04	5.00E-03	4.3%
Typical	Aerial	Forested	Helicopter	N.American - adult	9.80E-03	1.00E+00	1.00E-06	1.11E+04	1.09E-04	5.00E-03	2.2%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.06E-02	1.00E+00	1.00E-06	1.11E+04	1.18E-04	5.00E-03	2.4%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.14E-02	1.00E+00	1.00E-06	1.11E+04	1.27E-04	5.00E-03	2.5%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.04E-02	1.00E+00	1.00E-06	1.11E+04	3.38E-04	5.00E-03	6.8%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.83E-02	1.00E+00	1.00E-06	1.11E+04	3.15E-04	5.00E-03	6.3%
Max	Aerial	Forested	Plane	N.American - adult	3.92E-02	1.00E+00	1.00E-06	1.11E+04	4.36E-04	5.00E-03	9%
Max	Aerial	Forested	Helicopter	N.American - adult	1.96E-02	1.00E+00	1.00E-06	1.11E+04	2.19E-04	5.00E-03	4.4%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.12E-02	1.00E+00	1.00E-06	1.11E+04	2.36E-04	5.00E-03	4.7%
Max	Ground	Not applicable	High Boom	N.American - adult	2.29E-02	1.00E+00	1.00E-06	1.11E+04	2.55E-04	5.00E-03	5.1%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	5.00E-03	63%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	5.00E-03	3.23%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	5.00E-03	62%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.63E-03	4.00E+00	6.50E-03	5.00E-03	**130%**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	5.00E-03	16.0%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	5.00E-03	25.4%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	5.00E-03	64%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	5.00E-03	3.25%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	5.00E-03	62%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.63E-03	4.03E+00	6.55E-03	5.00E-03	**131%**
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	5.00E-03	16.1%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	5.00E-03	25.6%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	5.00E-03	63%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	5.00E-03	3.23%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	5.00E-03	62%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.63E-03	4.00E+00	6.50E-03	5.00E-03	**130%**
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	5.00E-03	16.0%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	5.00E-03	25.4%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	5.00E-03	64%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	5.00E-03	3.25%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	5.00E-03	62%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.63E-03	4.03E+00	6.55E-03	5.00E-03	**131%**
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	5.00E-03	16.1%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	5.00E-03	25.6%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	1.55E+03	2.21E+04	--	--	7.5%	--	--	1.31E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	1.93E+03	2.76E+04	--	--	6.9%	--	--	1.61E+00
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	**8.83E+02**	1.26E+04	--	--	10%	--	--	**7.64E-01**
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	1.73E+04	2.46E+05	--	--	4.9%	--	--	8.99E+00
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	6.92E+03	9.86E+04	--	--	5.3%	--	--	4.81E+00
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	4.38E+03	6.25E+04	--	--	6%	--	--	3.32E+00
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	**7.29E+02**	1.04E+04	--	--	15%	--	--	**6.17E-01**
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	**8.98E+02**	1.28E+04	--	--	14%	--	--	**7.50E-01**
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	**4.29E+02**	6.11E+03	--	--	20%	--	--	**3.71E-01**
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	8.65E+03	1.23E+05	--	--	10%	--	--	4.49E+00
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	3.48E+03	4.96E+04	--	--	11%	--	--	2.41E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	2.19E+03	3.12E+04	--	--	12%	--	--	1.66E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**5.95E+02**	7.34E+03	--	--	20%	36.0%	--	**4.21E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**7.43E+02**	9.17E+03	--	--	18%	28.9%	--	**5.19E-01**
Typical	Aerial	Forested	Plane	Berry - child	1.00E+03	**3.39E+02**	4.19E+03	--	--	26%	63%	--	**2.45E-01**
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+03	6.64E+03	8.20E+04	--	--	13%	3.23%	--	3.07E+00
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	2.66E+03	3.28E+04	--	--	14%	8.1%	--	1.59E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	1.68E+03	2.08E+04	--	--	15%	12.7%	--	1.09E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**2.80E+02**	3.46E+03	--	--	41%	77%	--	**1.99E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**3.45E+02**	4.26E+03	--	--	38%	62%	--	**2.42E-01**
Max	Aerial	Forested	Plane	Berry - child	1.00E+03	**1.65E+02**	2.03E+03	--	--	52%	**130%**	--	**1.19E-01**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+03	3.32E+03	4.10E+04	--	--	26%	6.5%	--	1.53E+00
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	1.34E+03	1.65E+04	--	--	28%	16.0%	--	**7.98E-01**
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	**8.42E+02**	1.04E+04	--	--	31%	25.4%	--	**5.43E-01**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	1.55E+03	1.28E+04	--	--	7.5%	36.2%	--	**8.62E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	1.93E+03	1.60E+04	--	--	6.9%	29.0%	--	1.06E+00
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+03	**8.83E+02**	7.32E+03	--	--	10%	64%	--	**5.00E-01**
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	1.73E+04	1.43E+05	--	--	4.9%	3.25%	--	6.82E+00
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	6.92E+03	5.74E+04	--	--	5.3%	8.1%	--	3.37E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	4.38E+03	3.64E+04	--	--	6%	12.8%	--	2.27E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	**7.29E+02**	6.04E+03	--	--	15%	77%	--	**4.07E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	**8.98E+02**	7.45E+03	--	--	14%	62%	--	**4.96E-01**
Max	Aerial	Forested	Plane	Berry - adult	1.00E+03	**4.29E+02**	3.56E+03	--	--	20%	**131%**	--	**2.43E-01**
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	8.65E+03	7.17E+04	--	--	10%	6.5%	--	3.41E+00
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	3.48E+03	2.88E+04	--	--	11%	16.1%	--	1.69E+00
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	2.19E+03	1.82E+04	--	--	12%	25.6%	--	1.13E+00

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	1.55E+03	2.21E+04	--	--	7.5%	--	0.23%	1.30E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	1.93E+03	2.76E+04	--	--	6.9%	--	0.21%	1.60E+00
Typical	Aerial	Forested	Plane	Angler	1.00E+03	**8.83E+02**	1.26E+04	--	--	10%	--	0.30%	**7.62E-01**
Typical	Aerial	Forested	Helicopter	Angler	1.00E+03	1.73E+04	2.46E+05	--	--	4.9%	--	0.15%	8.87E+00
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	6.92E+03	9.86E+04	--	--	5.3%	--	0.16%	4.77E+00
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	4.38E+03	6.25E+04	--	--	6%	--	0.18%	3.30E+00
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	**7.29E+02**	1.04E+04	--	--	15%	--	0.47%	**6.15E-01**
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	**8.98E+02**	1.28E+04	--	--	14%	--	0.43%	**7.47E-01**
Max	Aerial	Forested	Plane	Angler	1.00E+03	**4.29E+02**	6.11E+03	--	--	20%	--	0.60%	**3.71E-01**
Max	Aerial	Forested	Helicopter	Angler	1.00E+03	8.65E+03	1.23E+05	--	--	10%	--	0.30%	4.43E+00
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	3.48E+03	4.96E+04	--	--	11%	--	0.33%	2.39E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	2.19E+03	3.12E+04	--	--	12%	--	0.35%	1.65E+00
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**5.95E+02**	1.87E+03	--	--	--	--	--	**4.51E-01**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**7.43E+02**	2.33E+03	--	--	--	--	--	**5.63E-01**
Typical	Aerial	Forested	Plane	Res-child	1.00E+03	**3.39E+02**	1.07E+03	--	--	--	--	--	**2.57E-01**
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+03	6.64E+03	2.09E+04	--	--	--	--	--	5.04E+00
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	2.66E+03	8.35E+03	--	--	--	--	--	2.02E+00
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	1.68E+03	5.29E+03	--	--	--	--	--	1.28E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**2.80E+02**	**8.80E+02**	--	--	--	--	--	**2.12E-01**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**3.45E+02**	1.08E+03	--	--	--	--	--	**2.62E-01**
Max	Aerial	Forested	Plane	Res-child	1.00E+03	**1.65E+02**	**5.18E+02**	--	--	--	--	--	**1.25E-01**
Max	Aerial	Forested	Helicopter	Res-child	1.00E+03	3.32E+03	1.04E+04	--	--	--	--	--	2.52E+00
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	1.34E+03	4.20E+03	--	--	--	--	--	1.01E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	**8.42E+02**	2.65E+03	--	--	--	--	--	**6.39E-01**
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	1.55E+03	3.27E+03	--	--	--	--	--	1.05E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	1.93E+03	4.08E+03	--	--	--	--	--	1.31E+00
Typical	Aerial	Forested	Plane	Res-adult	1.00E+03	**8.83E+02**	1.86E+03	--	--	--	--	--	**5.99E-01**
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+03	1.73E+04	3.65E+04	--	--	--	--	--	1.17E+01
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	6.92E+03	1.46E+04	--	--	--	--	--	4.69E+00
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	4.38E+03	9.26E+03	--	--	--	--	--	2.98E+00
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	**7.29E+02**	1.54E+03	--	--	--	--	--	**4.95E-01**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	**8.98E+02**	1.90E+03	--	--	--	--	--	**6.10E-01**
Max	Aerial	Forested	Plane	Res-adult	1.00E+03	**4.29E+02**	**9.05E+02**	--	--	--	--	--	**2.91E-01**
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+03	8.65E+03	1.83E+04	--	--	--	--	--	5.87E+00
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	3.48E+03	7.34E+03	--	--	--	--	--	2.36E+00
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	2.19E+03	4.63E+03	--	--	--	--	--	1.49E+00

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**5.95E+02**	6.12E+03	3.01E+07	--	10%	36.0%	3.3%	**4.28E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**7.43E+02**	7.64E+03	3.24E+07	--	9.2%	28.9%	3.1%	**5.29E-01**
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+03	**3.39E+02**	3.49E+03	2.31E+07	--	13%	63%	4.3%	**2.48E-01**
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	6.64E+03	6.83E+04	4.56E+07	--	6.5%	3.23%	2.2%	3.51E+00
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	2.66E+03	2.73E+04	4.21E+07	--	7.1%	8.1%	2.4%	1.70E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	1.68E+03	1.73E+04	3.91E+07	--	8%	12.7%	2.5%	1.14E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**2.80E+02**	2.88E+03	1.47E+07	--	20%	77%	6.8%	**2.02E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**3.45E+02**	3.55E+03	1.58E+07	--	19%	62%	6.3%	**2.47E-01**
Max	Aerial	Forested	Plane	N.A.-child	1.00E+03	**1.65E+02**	1.69E+03	1.14E+07	--	26%	**130%**	9%	**1.20E-01**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	3.32E+03	3.42E+04	2.28E+07	--	13%	6.5%	4.4%	1.76E+00
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	1.34E+03	1.37E+04	2.11E+07	--	14%	16.0%	4.7%	**8.54E-01**
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	**8.42E+02**	8.66E+03	1.95E+07	--	15%	25.4%	5.1%	**5.68E-01**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	1.55E+03	1.07E+04	5.85E+07	--	3.7%	36.2%	3.3%	**8.53E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	1.93E+03	1.34E+04	6.29E+07	--	3.5%	29.0%	3.1%	1.06E+00
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+03	**8.83E+02**	6.10E+03	4.49E+07	--	4.9%	64%	4.3%	**4.94E-01**
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	1.73E+04	1.19E+05	8.86E+07	--	2.5%	3.25%	2.2%	6.89E+00
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	6.92E+03	4.78E+04	8.19E+07	--	2.7%	8.1%	2.4%	3.37E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	4.38E+03	3.03E+04	7.59E+07	--	2.9%	12.8%	2.5%	2.26E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	**7.29E+02**	5.04E+03	2.86E+07	--	7.6%	77%	6.8%	**4.03E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	**8.98E+02**	6.21E+03	3.07E+07	--	7.1%	62%	6.3%	**4.92E-01**
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+03	**4.29E+02**	2.96E+03	2.22E+07	--	10%	**131%**	9%	**2.40E-01**
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	8.65E+03	5.97E+04	4.42E+07	--	4.9%	6.5%	4.4%	3.44E+00
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	3.48E+03	2.40E+04	4.09E+07	--	5.3%	16.1%	4.7%	1.69E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	2.19E+03	1.51E+04	3.80E+07	--	5.8%	25.6%	5.1%	1.13E+00

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D (Land; Woody Species)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	7.83E+07	1.26E+05	--	--	--	1.26E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	8.42E+07	1.36E+05	--	--	--	1.36E+02
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	6.01E+07	9.69E+04	--	--	--	9.68E+01
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.19E+08	1.91E+05	--	--	--	1.91E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	1.10E+08	1.77E+05	--	--	--	1.76E+02
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.02E+08	1.64E+05	--	--	--	1.64E+02
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	3.82E+07	6.17E+04	--	--	--	6.16E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	4.10E+07	6.62E+04	--	--	--	6.61E+01
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	2.96E+07	4.78E+04	--	--	--	4.78E+01
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	5.92E+07	9.54E+04	--	--	--	9.53E+01
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	5.47E+07	8.83E+04	--	--	--	8.82E+01
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	5.08E+07	8.20E+04	--	--	--	8.18E+01
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.52E+08	1.13E+06	--	--	--	1.12E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.64E+08	1.22E+06	--	--	--	1.21E+03
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.17E+08	8.68E+05	--	--	--	8.62E+02
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.30E+08	1.71E+06	--	--	--	1.70E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	2.13E+08	1.58E+06	--	--	--	1.57E+03
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	1.97E+08	1.47E+06	--	--	--	1.46E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	7.43E+07	5.53E+05	--	--	--	5.48E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	7.97E+07	5.93E+05	--	--	--	5.88E+02
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	5.76E+07	4.29E+05	--	--	--	4.25E+02
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.15E+08	8.55E+05	--	--	--	8.49E+02
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	1.06E+08	7.91E+05	--	--	--	7.85E+02
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	9.87E+07	7.34E+05	--	--	--	7.29E+02

--Receptor not exposed via this pathway.
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Long-term Exposure
Herbicide: **2,4-D (Land; Woody Species)**
Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a)						Maximum Application Rate Scenario ARIs (a)					
AgDrift Scenario:	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	1.3	2	**0.8**	9	5	3	**0.6**	**0.7**	**0.4**	4	2	2
Berry Picker (Child)	**0.4**	**0.5**	**0.2**	3	2	1.1	**0.2**	**0.2**	**0.1**	2	**0.8**	**0.5**
Berry Picker (Adult)	**0.9**	1.1	**0.5**	7	3	2	**0.4**	**0.5**	**0.2**	3	2	1.1
Angler (Adult)	1.3	1.6	**0.8**	9	5	3	**0.6**	**0.7**	**0.4**	4	2	2
Residential (Child)	**0.5**	**0.6**	**0.3**	5	2	1.3	**0.2**	**0.3**	**0.1**	3	1.01	**0.6**
Residential (Adult)	1.1	1.3	**0.6**	12	5	3	**0.5**	**0.6**	**0.3**	6	2.4	1.5
Native American (Child)	**0.4**	**0.5**	**0.2**	4	2	1.1	**0.2**	**0.2**	**0.1**	2	**0.9**	**0.6**
Native American (Adult)	**0.9**	1.1	**0.5**	7	3	2	**0.4**	**0.5**	**0.2**	3	2	1.1
Swimmer (Child)	126	136	97	191	176	164	62	66	48	95	88	82
Swimmer (Adult)	1,123	1,207	862	1,701	1,572	1,458	548	588	425	849	785	729

ARI - Aggregate Risk Index. Values less than one represent a level of concern and are highlighted.
(a) - Application rates are shown on Table 4-1 and are the same for each program.
(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.
(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	1.50E+01	1.78E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	1.50E+01	2.23E+03
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	1.50E+01	7.97E+03
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	1.50E+01	5.05E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	1.50E+01	**8.40E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	1.50E+01	1.04E+03
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	1.50E+01	4.01E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	1.50E+01	2.53E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	1.50E+01	1.78E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	1.50E+01	2.23E+03
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	1.50E+01	7.97E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	1.50E+01	5.05E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	1.50E+01	**8.40E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	1.50E+01	1.04E+03
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	1.50E+01	4.01E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	1.50E+01	2.53E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	1.50E+01	1.78E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	1.50E+01	2.23E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	1.50E+01	7.97E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	1.50E+01	5.05E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	1.50E+01	**8.40E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	1.50E+01	1.04E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	1.50E+01	4.01E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	1.50E+01	2.53E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	1.50E+01	4.65E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	1.50E+01	5.80E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	1.50E+01	2.08E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	1.50E+01	1.32E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	1.50E+01	2.19E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	1.50E+01	2.70E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	1.50E+01	1.04E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	1.50E+01	6.58E+03

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	1.50E+01	6.62E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	1.50E+01	8.27E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	1.50E+01	2.96E+05
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	1.50E+01	1.87E+05
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	9.56E-04	2.39E-04	2.01E+01	4.81E-04	1.50E+01	3.12E+04
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	7.76E-04	1.94E-04	2.01E+01	3.91E-04	1.50E+01	3.84E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	2.00E-04	5.01E-05	2.01E+01	1.01E-04	1.50E+01	1.49E+05
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	3.18E-04	7.95E-05	2.01E+01	1.60E-04	1.50E+01	9.37E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	6.05E+01	6.81E-04	1.50E+01	2.20E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	6.05E+01	5.45E-04	1.50E+01	2.75E+04
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	6.05E+01	1.52E-04	1.50E+01	9.84E+04
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	6.05E+01	2.41E-04	1.50E+01	6.24E+04
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	9.56E-04	2.39E-04	6.05E+01	1.45E-03	1.50E+01	1.04E+04
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	7.76E-04	1.94E-04	6.05E+01	1.17E-03	1.50E+01	1.28E+04
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	2.00E-04	5.01E-05	6.05E+01	3.03E-04	1.50E+01	4.95E+04
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	3.18E-04	7.95E-05	6.05E+01	4.81E-04	1.50E+01	3.12E+04
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	3.46E+01	3.89E-04	1.50E+01	3.85E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	3.46E+01	3.12E-04	1.50E+01	4.81E+04
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	3.46E+01	8.72E-05	1.50E+01	1.72E+05
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	3.46E+01	1.38E-04	1.50E+01	1.09E+05
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	9.56E-04	2.39E-04	3.46E+01	8.27E-04	1.50E+01	1.81E+04
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	7.76E-04	1.94E-04	3.46E+01	6.71E-04	1.50E+01	2.23E+04
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	2.00E-04	5.01E-05	3.46E+01	1.73E-04	1.50E+01	8.65E+04
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	3.18E-04	7.95E-05	3.46E+01	2.75E-04	1.50E+01	5.45E+04
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	1.50E+01	6.62E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	1.50E+01	8.27E+04
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	1.50E+01	2.96E+05
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	1.50E+01	1.87E+05
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	9.56E-04	2.39E-04	2.01E+01	4.81E-04	1.50E+01	3.12E+04
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	7.76E-04	1.94E-04	2.01E+01	3.91E-04	1.50E+01	3.84E+04
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	2.00E-04	5.01E-05	2.01E+01	1.01E-04	1.50E+01	1.49E+05
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	3.18E-04	7.95E-05	2.01E+01	1.60E-04	1.50E+01	9.37E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	4.50E-04	4.50E-06	5.94E+03	2.67E-03	1.50E+01	5.61E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	3.61E-04	3.61E-06	5.94E+03	2.14E-03	1.50E+01	7.00E+03
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	1.01E-04	1.01E-06	5.94E+03	5.99E-04	1.50E+01	2.51E+04
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	1.59E-04	1.59E-06	5.94E+03	9.45E-04	1.50E+01	1.59E+04
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	9.56E-04	9.56E-06	5.94E+03	5.68E-03	1.50E+01	2.64E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	7.76E-04	7.76E-06	5.94E+03	4.61E-03	1.50E+01	3.25E+03
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	2.00E-04	2.00E-06	5.94E+03	1.19E-03	1.50E+01	1.26E+04
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	3.18E-04	3.18E-06	5.94E+03	1.89E-03	1.50E+01	7.94E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	4.50E-04	4.50E-06	3.40E+03	1.53E-03	1.50E+01	9.81E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	3.61E-04	3.61E-06	3.40E+03	1.22E-03	1.50E+01	1.22E+04
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	1.01E-04	1.01E-06	3.40E+03	3.42E-04	1.50E+01	4.38E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	1.59E-04	1.59E-06	3.40E+03	5.40E-04	1.50E+01	2.78E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	9.56E-04	9.56E-06	3.40E+03	3.25E-03	1.50E+01	4.62E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	7.76E-04	7.76E-06	3.40E+03	2.64E-03	1.50E+01	5.69E+03
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	2.00E-04	2.00E-06	3.40E+03	6.81E-04	1.50E+01	2.20E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	3.18E-04	3.18E-06	3.40E+03	1.08E-03	1.50E+01	1.39E+04
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	7.26E+01	8.17E-04	1.50E+01	1.84E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	7.26E+01	6.55E-04	1.50E+01	2.29E+04
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	7.26E+01	1.83E-04	1.50E+01	8.20E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	7.26E+01	2.89E-04	1.50E+01	5.20E+04
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	9.56E-04	2.39E-04	7.26E+01	1.74E-03	1.50E+01	8.64E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	7.76E-04	1.94E-04	7.26E+01	1.41E-03	1.50E+01	1.06E+04
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	2.00E-04	5.01E-05	7.26E+01	3.64E-04	1.50E+01	4.12E+04
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	3.18E-04	7.95E-05	7.26E+01	5.77E-04	1.50E+01	2.60E+04
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	4.15E+01	4.67E-04	1.50E+01	3.21E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	4.15E+01	3.74E-04	1.50E+01	4.01E+04
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	4.15E+01	1.05E-04	1.50E+01	1.43E+05
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	4.15E+01	1.65E-04	1.50E+01	9.09E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	9.56E-04	2.39E-04	4.15E+01	9.93E-04	1.50E+01	1.51E+04
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	7.76E-04	1.94E-04	4.15E+01	8.05E-04	1.50E+01	1.86E+04
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	2.00E-04	5.01E-05	4.15E+01	2.08E-04	1.50E+01	7.21E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	3.18E-04	7.95E-05	4.15E+01	3.30E-04	1.50E+01	4.54E+04

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	5.60E-03	1.00E-03	4.40E+02	7.23E-08	1.50E+01	2.08E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	4.56E-03	1.00E-03	4.40E+02	5.89E-08	1.50E+01	2.55E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	1.36E-03	1.00E-03	4.40E+02	1.76E-08	1.50E+01	8.54E+08
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	2.19E-03	1.00E-03	4.40E+02	2.83E-08	1.50E+01	5.31E+08
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.19E-02	1.00E-03	4.40E+02	1.54E-07	1.50E+01	9.77E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	9.84E-03	1.00E-03	4.40E+02	1.27E-07	1.50E+01	1.18E+08
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	2.73E-03	1.00E-03	4.40E+02	3.52E-08	1.50E+01	4.26E+08
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	4.38E-03	1.00E-03	4.40E+02	5.65E-08	1.50E+01	2.65E+08
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	5.60E-03	1.00E-03	2.26E+02	3.72E-08	1.50E+01	4.03E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	4.56E-03	1.00E-03	2.26E+02	3.03E-08	1.50E+01	4.95E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	1.36E-03	1.00E-03	2.26E+02	9.03E-09	1.50E+01	1.66E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	2.19E-03	1.00E-03	2.26E+02	1.45E-08	1.50E+01	1.03E+09
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.19E-02	1.00E-03	2.26E+02	7.90E-08	1.50E+01	1.90E+08
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	9.84E-03	1.00E-03	2.26E+02	6.54E-08	1.50E+01	2.30E+08
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	2.73E-03	1.00E-03	2.26E+02	1.81E-08	1.50E+01	8.27E+08
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	4.38E-03	1.00E-03	2.26E+02	2.91E-08	1.50E+01	5.16E+08
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	5.60E-03	1.00E-03	1.14E+03	1.88E-07	1.50E+01	7.98E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	4.56E-03	1.00E-03	1.14E+03	1.53E-07	1.50E+01	9.80E+07
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	1.36E-03	1.00E-03	1.14E+03	4.56E-08	1.50E+01	3.29E+08
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	2.19E-03	1.00E-03	1.14E+03	7.35E-08	1.50E+01	2.04E+08
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.19E-02	1.00E-03	1.14E+03	3.99E-07	1.50E+01	3.76E+07
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	9.84E-03	1.00E-03	1.14E+03	3.30E-07	1.50E+01	4.54E+07
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	2.73E-03	1.00E-03	1.14E+03	9.16E-08	1.50E+01	1.64E+08
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	4.38E-03	1.00E-03	1.14E+03	1.47E-07	1.50E+01	1.02E+08
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	5.60E-03	1.00E-03	5.89E+02	9.67E-08	1.50E+01	1.55E+08
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	4.56E-03	1.00E-03	5.89E+02	7.87E-08	1.50E+01	1.90E+08
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	1.36E-03	1.00E-03	5.89E+02	2.35E-08	1.50E+01	6.39E+08
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	2.19E-03	1.00E-03	5.89E+02	3.78E-08	1.50E+01	3.97E+08
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.19E-02	1.00E-03	5.89E+02	2.06E-07	1.50E+01	7.30E+07
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	9.84E-03	1.00E-03	5.89E+02	1.70E-07	1.50E+01	8.83E+07
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	2.73E-03	1.00E-03	5.89E+02	4.71E-08	1.50E+01	3.18E+08
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	4.38E-03	1.00E-03	5.89E+02	7.56E-08	1.50E+01	1.98E+08

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	5.60E-03	8.00E-03	4.48E-05	1.50E+01	3.35E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	4.56E-03	8.00E-03	3.65E-05	1.50E+01	4.11E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.36E-03	8.00E-03	1.09E-05	1.50E+01	1.38E+06
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.19E-03	8.00E-03	1.75E-05	1.50E+01	8.56E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.19E-02	8.00E-03	9.52E-05	1.50E+01	1.58E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	9.84E-03	8.00E-03	7.87E-05	1.50E+01	1.91E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.73E-03	8.00E-03	2.18E-05	1.50E+01	6.87E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	4.38E-03	8.00E-03	3.50E-05	1.50E+01	4.28E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	5.60E-03	8.93E-04	5.00E-06	1.50E+01	3.00E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	4.56E-03	8.93E-04	4.07E-06	1.50E+01	3.68E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.36E-03	8.93E-04	1.21E-06	1.50E+01	1.23E+07
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.19E-03	8.93E-04	1.96E-06	1.50E+01	7.67E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.19E-02	8.93E-04	1.06E-05	1.50E+01	1.41E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	9.84E-03	8.93E-04	8.79E-06	1.50E+01	1.71E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.73E-03	8.93E-04	2.44E-06	1.50E+01	6.15E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	4.38E-03	8.93E-04	3.91E-06	1.50E+01	3.83E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	5.60E-03	2.52E-02	1.41E-04	5.00E-03	2.8%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	4.56E-03	2.52E-02	1.15E-04	5.00E-03	2.3%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.36E-03	2.52E-02	3.42E-05	5.00E-03	0.7%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.19E-03	2.52E-02	5.51E-05	5.00E-03	1%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.19E-02	2.52E-02	2.99E-04	5.00E-03	6.0%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	9.84E-03	2.52E-02	2.48E-04	5.00E-03	5.0%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.73E-03	2.52E-02	6.87E-05	5.00E-03	1.4%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	4.38E-03	2.52E-02	1.10E-04	5.00E-03	2.2%
Typical	Aerial	Non-Forested	Plane	Berry - child	5.60E-03	6.67E-02	3.73E-04	5.00E-03	7.5%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	4.56E-03	6.67E-02	3.04E-04	5.00E-03	6.1%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.36E-03	6.67E-02	9.07E-05	5.00E-03	1.8%
Typical	Ground	Not applicable	High Boom	Berry - child	2.19E-03	6.67E-02	1.46E-04	5.00E-03	3%
Max	Aerial	Non-Forested	Plane	Berry - child	1.19E-02	6.67E-02	7.93E-04	5.00E-03	16%
Max	Aerial	Non-Forested	Helicopter	Berry - child	9.84E-03	6.67E-02	6.56E-04	5.00E-03	13%
Max	Ground	Not applicable	Low Boom	Berry - child	2.73E-03	6.67E-02	1.82E-04	5.00E-03	3.6%
Max	Ground	Not applicable	High Boom	Berry - child	4.38E-03	6.67E-02	2.92E-04	5.00E-03	5.8%
Typical	Aerial	Non-Forested	Plane	Berry - adult	5.60E-03	2.52E-02	1.41E-04	5.00E-03	2.8%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	4.56E-03	2.52E-02	1.15E-04	5.00E-03	2.3%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.36E-03	2.52E-02	3.42E-05	5.00E-03	0.68%
Typical	Ground	Not applicable	High Boom	Berry - adult	2.19E-03	2.52E-02	5.51E-05	5.00E-03	1%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.19E-02	2.52E-02	2.99E-04	5.00E-03	6.0%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	9.84E-03	2.52E-02	2.48E-04	5.00E-03	5.0%
Max	Ground	Not applicable	Low Boom	Berry - adult	2.73E-03	2.52E-02	6.87E-05	5.00E-03	1.4%
Max	Ground	Not applicable	High Boom	Berry - adult	4.38E-03	2.52E-02	1.10E-04	5.00E-03	2.2%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	5.60E-03	2.52E-02	1.41E-04	5.00E-03	2.8%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.56E-03	2.52E-02	1.15E-04	5.00E-03	2.3%
Typical	Ground	Not applicable	Low Boom	Angler	1.36E-03	2.52E-02	3.42E-05	5.00E-03	0.68%
Typical	Ground	Not applicable	High Boom	Angler	2.19E-03	2.52E-02	5.51E-05	5.00E-03	1%
Max	Aerial	Non-Forested	Plane	Angler	1.19E-02	2.52E-02	2.99E-04	5.00E-03	6.0%
Max	Aerial	Non-Forested	Helicopter	Angler	9.84E-03	2.52E-02	2.48E-04	5.00E-03	5.0%
Max	Ground	Not applicable	Low Boom	Angler	2.73E-03	2.52E-02	6.87E-05	5.00E-03	1.4%
Max	Ground	Not applicable	High Boom	Angler	4.38E-03	2.52E-02	1.10E-04	5.00E-03	2.2%
Typical	Aerial	Non-Forested	Plane	N.American - child	5.60E-03	3.33E-02	1.87E-04	5.00E-03	3.7%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.56E-03	3.33E-02	1.52E-04	5.00E-03	3.0%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.36E-03	3.33E-02	4.53E-05	5.00E-03	0.91%
Typical	Ground	Not applicable	High Boom	N.American - child	2.19E-03	3.33E-02	7.30E-05	5.00E-03	1%
Max	Aerial	Non-Forested	Plane	N.American - child	1.19E-02	3.33E-02	3.97E-04	5.00E-03	7.9%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.84E-03	3.33E-02	3.28E-04	5.00E-03	6.6%
Max	Ground	Not applicable	Low Boom	N.American - child	2.73E-03	3.33E-02	9.10E-05	5.00E-03	1.8%
Max	Ground	Not applicable	High Boom	N.American - child	4.38E-03	3.33E-02	1.46E-04	5.00E-03	2.9%
Typical	Aerial	Non-Forested	Plane	N.American - adult	5.60E-03	1.26E-02	7.04E-05	5.00E-03	1.4%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.56E-03	1.26E-02	5.74E-05	5.00E-03	1.1%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.36E-03	1.26E-02	1.71E-05	5.00E-03	0.34%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.19E-03	1.26E-02	2.75E-05	5.00E-03	0.6%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.19E-02	1.26E-02	1.50E-04	5.00E-03	3.0%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.84E-03	1.26E-02	1.24E-04	5.00E-03	2.5%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.73E-03	1.26E-02	3.43E-05	5.00E-03	0.69%
Max	Ground	Not applicable	High Boom	N.American - adult	4.38E-03	1.26E-02	5.51E-05	5.00E-03	1.1%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Fish
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	5.60E-03	1.00E+00	1.00E-06	7.67E+02	4.30E-06	5.00E-03	0.09%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.56E-03	1.00E+00	1.00E-06	7.67E+02	3.50E-06	5.00E-03	0.070%
Typical	Ground	Not applicable	Low Boom	Angler	1.36E-03	1.00E+00	1.00E-06	7.67E+02	1.04E-06	5.00E-03	0.021%
Typical	Ground	Not applicable	High Boom	Angler	2.19E-03	1.00E+00	1.00E-06	7.67E+02	1.68E-06	5.00E-03	0.03%
Max	Aerial	Non-Forested	Plane	Angler	1.19E-02	1.00E+00	1.00E-06	7.67E+02	9.13E-06	5.00E-03	0.18%
Max	Aerial	Non-Forested	Helicopter	Angler	9.84E-03	1.00E+00	1.00E-06	7.67E+02	7.55E-06	5.00E-03	0.15%
Max	Ground	Not applicable	Low Boom	Angler	2.73E-03	1.00E+00	1.00E-06	7.67E+02	2.09E-06	5.00E-03	0.042%
Max	Ground	Not applicable	High Boom	Angler	4.38E-03	1.00E+00	1.00E-06	7.67E+02	3.36E-06	5.00E-03	0.067%
Typical	Aerial	Non-Forested	Plane	N.American - child	5.60E-03	1.00E+00	1.00E-06	1.11E+04	6.23E-05	5.00E-03	1.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.56E-03	1.00E+00	1.00E-06	1.11E+04	5.08E-05	5.00E-03	1.0%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.36E-03	1.00E+00	1.00E-06	1.11E+04	1.51E-05	5.00E-03	0.30%
Typical	Ground	Not applicable	High Boom	N.American - child	2.19E-03	1.00E+00	1.00E-06	1.11E+04	2.44E-05	5.00E-03	0.5%
Max	Aerial	Non-Forested	Plane	N.American - child	1.19E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	5.00E-03	2.6%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.84E-03	1.00E+00	1.00E-06	1.11E+04	1.10E-04	5.00E-03	2.2%
Max	Ground	Not applicable	Low Boom	N.American - child	2.73E-03	1.00E+00	1.00E-06	1.11E+04	3.04E-05	5.00E-03	0.61%
Max	Ground	Not applicable	High Boom	N.American - child	4.38E-03	1.00E+00	1.00E-06	1.11E+04	4.88E-05	5.00E-03	1.0%
Typical	Aerial	Non-Forested	Plane	N.American - adult	5.60E-03	1.00E+00	1.00E-06	1.11E+04	6.23E-05	5.00E-03	1.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.56E-03	1.00E+00	1.00E-06	1.11E+04	5.08E-05	5.00E-03	1.0%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.36E-03	1.00E+00	1.00E-06	1.11E+04	1.51E-05	5.00E-03	0.30%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.19E-03	1.00E+00	1.00E-06	1.11E+04	2.44E-05	5.00E-03	0.5%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.19E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	5.00E-03	2.6%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.84E-03	1.00E+00	1.00E-06	1.11E+04	1.10E-04	5.00E-03	2.2%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.73E-03	1.00E+00	1.00E-06	1.11E+04	3.04E-05	5.00E-03	0.61%
Max	Ground	Not applicable	High Boom	N.American - adult	4.38E-03	1.00E+00	1.00E-06	1.11E+04	4.88E-05	5.00E-03	1.0%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	5.00E-03	62%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	5.00E-03	16.0%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	5.00E-03	25.4%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	5.00E-03	62%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	5.00E-03	16.1%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	5.00E-03	25.6%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	5.00E-03	62%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	5.00E-03	16.0%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	5.00E-03	25.4%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	5.00E-03	62%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	5.00E-03	16.1%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	5.00E-03	25.6%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	4.65E+03	6.62E+04	--	--	2.8%	--	--	3.87E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	5.80E+03	8.27E+04	--	--	2.3%	--	--	4.82E+00
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	2.08E+04	2.96E+05	--	--	0.7%	--	--	1.71E+01
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	1.32E+04	1.87E+05	--	--	1%	--	--	1.08E+01
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	2.19E+03	3.12E+04	--	--	6.0%	--	--	1.82E+00
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	2.70E+03	3.84E+04	--	--	5.0%	--	--	2.24E+00
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	1.04E+04	1.49E+05	--	--	1.4%	--	--	8.60E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	6.58E+03	9.37E+04	--	--	2.2%	--	--	5.41E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	1.78E+03	2.20E+04	--	--	7.5%	36.0%	--	**9.61E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	2.23E+03	2.75E+04	--	--	6.1%	28.9%	--	1.20E+00
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	7.97E+03	9.84E+04	--	--	1.8%	8.1%	--	4.27E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	5.05E+03	6.24E+04	--	--	3%	12.7%	--	2.70E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**8.40E+02**	1.04E+04	--	--	16%	77%	--	**4.52E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	1.04E+03	1.28E+04	--	--	13%	62%	--	**5.57E-01**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	4.01E+03	4.95E+04	--	--	3.6%	16.0%	--	2.14E+00
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	2.53E+03	3.12E+04	--	--	5.8%	25.4%	--	1.35E+00
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	4.65E+03	3.85E+04	--	--	2.8%	36.2%	--	1.58E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	5.80E+03	4.81E+04	--	--	2.3%	29.0%	--	1.97E+00
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	2.08E+04	1.72E+05	--	--	0.7%	8.1%	--	7.04E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	1.32E+04	1.09E+05	--	--	1%	12.8%	--	4.46E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	2.19E+03	1.81E+04	--	--	6.0%	77%	--	**7.45E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	2.70E+03	2.23E+04	--	--	5.0%	62%	--	**9.17E-01**
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	1.04E+04	8.65E+04	--	--	1.4%	16.1%	--	3.54E+00
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	6.58E+03	5.45E+04	--	--	2.2%	25.6%	--	2.23E+00
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	4.65E+03	6.62E+04	--	--	2.8%	--	0.09%	3.86E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	5.80E+03	8.27E+04	--	--	2.3%	--	0.070%	4.80E+00
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	2.08E+04	2.96E+05	--	--	0.7%	--	0.021%	1.71E+01
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	1.32E+04	1.87E+05	--	--	1%	--	0.03%	1.08E+01
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	2.19E+03	3.12E+04	--	--	6.0%	--	0.18%	1.81E+00
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	2.70E+03	3.84E+04	--	--	5.0%	--	0.15%	2.23E+00
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	1.04E+04	1.49E+05	--	--	1.4%	--	0.042%	8.57E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	6.58E+03	9.37E+04	--	--	2.2%	--	0.067%	5.39E+00

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	1.78E+03	5.61E+03	--	--	--	--	--	1.35E+00
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	2.23E+03	7.00E+03	--	--	--	--	--	1.69E+00
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	7.97E+03	2.51E+04	--	--	--	--	--	6.05E+00
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	5.05E+03	1.59E+04	--	--	--	--	--	3.83E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**8.40E+02**	2.64E+03	--	--	--	--	--	**6.37E-01**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	1.04E+03	3.25E+03	--	--	--	--	--	**7.85E-01**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	4.01E+03	1.26E+04	--	--	--	--	--	3.04E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	2.53E+03	7.94E+03	--	--	--	--	--	1.92E+00
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	4.65E+03	9.81E+03	--	--	--	--	--	3.15E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	5.80E+03	1.22E+04	--	--	--	--	--	3.94E+00
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	2.08E+04	4.38E+04	--	--	--	--	--	1.41E+01
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	1.32E+04	2.78E+04	--	--	--	--	--	8.93E+00
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	2.19E+03	4.62E+03	--	--	--	--	--	1.48E+00
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	2.70E+03	5.69E+03	--	--	--	--	--	1.83E+00
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	1.04E+04	2.20E+04	--	--	--	--	--	7.08E+00
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	6.58E+03	1.39E+04	--	--	--	--	--	4.46E+00
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	1.78E+03	1.84E+04	7.98E+07	--	3.7%	36.0%	1.2%	**9.76E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	2.23E+03	2.29E+04	9.80E+07	--	3.0%	28.9%	1.0%	1.22E+00
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	7.97E+03	8.20E+04	3.29E+08	--	0.91%	8.1%	0.30%	4.34E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	5.05E+03	5.20E+04	2.04E+08	--	1.5%	12.7%	0.5%	2.75E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**8.40E+02**	8.64E+03	3.76E+07	--	7.9%	77%	2.6%	**4.59E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	1.04E+03	1.06E+04	4.54E+07	--	6.6%	62%	2.2%	**5.66E-01**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	4.01E+03	4.12E+04	1.64E+08	--	1.8%	16.0%	0.61%	2.18E+00
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	2.53E+03	2.60E+04	1.02E+08	--	2.9%	25.4%	1.0%	1.37E+00
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	4.65E+03	3.21E+04	1.55E+08	--	1.4%	36.2%	1.2%	1.57E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	5.80E+03	4.01E+04	1.90E+08	--	1.1%	29.0%	1.0%	1.96E+00
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	2.08E+04	1.43E+05	6.39E+08	--	0.34%	8.1%	0.30%	7.01E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	1.32E+04	9.09E+04	3.97E+08	--	0.6%	12.8%	0.5%	4.44E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	2.19E+03	1.51E+04	7.30E+07	--	3.0%	77%	2.6%	**7.41E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	2.70E+03	1.86E+04	8.83E+07	--	2.5%	62%	2.2%	**9.12E-01**
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	1.04E+04	7.21E+04	3.18E+08	--	0.69%	16.1%	0.61%	3.52E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	6.58E+03	4.54E+04	1.98E+08	--	1.1%	25.6%	1.0%	2.22E+00

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	2.08E+08	3.35E+05	--	--	--	3.34E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	2.55E+08	4.11E+05	--	--	--	4.11E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	8.54E+08	1.38E+06	--	--	--	1.38E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	5.31E+08	8.56E+05	--	--	--	8.55E+02
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	9.77E+07	1.58E+05	--	--	--	1.57E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.18E+08	1.91E+05	--	--	--	1.90E+02
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	4.26E+08	6.87E+05	--	--	--	6.86E+02
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	2.65E+08	4.28E+05	--	--	--	4.27E+02
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	4.03E+08	3.00E+06	--	--	--	2.98E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	4.95E+08	3.68E+06	--	--	--	3.66E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	1.66E+09	1.23E+07	--	--	--	1.23E+04
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	1.03E+09	7.67E+06	--	--	--	7.61E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.90E+08	1.41E+06	--	--	--	1.40E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.30E+08	1.71E+06	--	--	--	1.69E+03
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	8.27E+08	6.15E+06	--	--	--	6.11E+03
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	5.16E+08	3.83E+06	--	--	--	3.81E+03

--Receptor not exposed via this pathway.
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Intermediate-term Exposure
Herbicide: **2,4-D Aquatic (Floating and Emerged)**
Programs: **Aquatic Sites**

	Typical Application Rate Scenario ARIs (a)				Maximum Application Rate Scenario ARIs (a)			
AgDrift Scenario:	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Not applicable**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	4	5	17	11	2	2	9	5
Berry Picker (Child)	**0.96**	1.2	4	3	**0.5**	**0.6**	2	1
Berry Picker (Adult)	2	2	7	4	**0.7**	**0.9**	4	2
Angler (Adult)	4	5	17	11	2	2	9	5
Residential (Child)	1.4	2	6	4	**0.6**	**0.8**	3	2
Residential (Adult)	3	4	14	9	1.5	2	7	4
Native American (Child)	**0.98**	1.2	4	3	**0.5**	**0.6**	2	1.4
Native American (Adult)	2	2	7	4	**0.7**	**0.9**	4	2
Swimmer (Child)	334	411	1,376	855	157	190	686	427
Swimmer (Adult)	2,977	3,656	12,259	7,615	1,401	1,694	6,107	3,806

ARI - Aggregate Risk Index. Values less than one represent a level of concern and are highlighted.
(a) - Application rates are shown on Table 4-1 and are the same for each program.
(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios. The Non-Forested land type is used to model pond concentrations. It is assumed that spray drift settles to an adjacent, non-target pond.
(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	5.00E+00	**5.95E+02**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	5.00E+00	**7.43E+02**
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	5.00E+00	2.66E+03
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	5.00E+00	1.68E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	5.00E+00	**2.80E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	5.00E+00	**3.45E+02**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	5.00E+00	1.34E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	5.00E+00	**8.42E+02**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	5.00E+00	**5.95E+02**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	5.00E+00	**7.43E+02**
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	5.00E+00	2.66E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	5.00E+00	1.68E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	5.00E+00	**2.80E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	5.00E+00	**3.45E+02**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	5.00E+00	1.34E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	5.00E+00	**8.42E+02**
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	5.00E+00	**5.95E+02**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	5.00E+00	**7.43E+02**
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	5.00E+00	2.66E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	5.00E+00	1.68E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	5.00E+00	**2.80E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	5.00E+00	**3.45E+02**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	5.00E+00	1.34E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	5.00E+00	**8.42E+02**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	5.00E+00	1.55E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	5.00E+00	1.93E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	5.00E+00	6.92E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	5.00E+00	4.38E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	5.00E+00	**7.29E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	5.00E+00	**8.98E+02**
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	5.00E+00	3.48E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	5.00E+00	2.19E+03

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	5.00E+00	2.21E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	5.00E+00	2.76E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	5.00E+00	9.86E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	5.00E+00	6.25E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	9.56E-04	2.39E-04	2.01E+01	4.81E-04	5.00E+00	1.04E+04
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	7.76E-04	1.94E-04	2.01E+01	3.91E-04	5.00E+00	1.28E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	2.00E-04	5.01E-05	2.01E+01	1.01E-04	5.00E+00	4.96E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	3.18E-04	7.95E-05	2.01E+01	1.60E-04	5.00E+00	3.12E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	6.05E+01	6.81E-04	5.00E+00	7.34E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	6.05E+01	5.45E-04	5.00E+00	9.17E+03
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	6.05E+01	1.52E-04	5.00E+00	3.28E+04
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	6.05E+01	2.41E-04	5.00E+00	2.08E+04
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	9.56E-04	2.39E-04	6.05E+01	1.45E-03	5.00E+00	3.46E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	7.76E-04	1.94E-04	6.05E+01	1.17E-03	5.00E+00	4.26E+03
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	2.00E-04	5.01E-05	6.05E+01	3.03E-04	5.00E+00	1.65E+04
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	3.18E-04	7.95E-05	6.05E+01	4.81E-04	5.00E+00	1.04E+04
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	3.46E+01	3.89E-04	5.00E+00	1.28E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	3.46E+01	3.12E-04	5.00E+00	1.60E+04
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	3.46E+01	8.72E-05	5.00E+00	5.74E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	3.46E+01	1.38E-04	5.00E+00	3.64E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	9.56E-04	2.39E-04	3.46E+01	8.27E-04	5.00E+00	6.04E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	7.76E-04	1.94E-04	3.46E+01	6.71E-04	5.00E+00	7.45E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	2.00E-04	5.01E-05	3.46E+01	1.73E-04	5.00E+00	2.88E+04
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	3.18E-04	7.95E-05	3.46E+01	2.75E-04	5.00E+00	1.82E+04
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	4.50E-04	1.13E-04	2.01E+01	2.27E-04	5.00E+00	2.21E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	5.00E+00	2.76E+04
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	1.01E-04	2.52E-05	2.01E+01	5.07E-05	5.00E+00	9.86E+04
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	1.59E-04	3.98E-05	2.01E+01	8.00E-05	5.00E+00	6.25E+04
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	9.56E-04	2.39E-04	2.01E+01	4.81E-04	5.00E+00	1.04E+04
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	7.76E-04	1.94E-04	2.01E+01	3.91E-04	5.00E+00	1.28E+04
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	2.00E-04	5.01E-05	2.01E+01	1.01E-04	5.00E+00	4.96E+04
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	3.18E-04	7.95E-05	2.01E+01	1.60E-04	5.00E+00	3.12E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	4.50E-04	4.50E-06	5.94E+03	2.67E-03	5.00E+00	1.87E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	3.61E-04	3.61E-06	5.94E+03	2.14E-03	5.00E+00	2.33E+03
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	1.01E-04	1.01E-06	5.94E+03	5.99E-04	5.00E+00	8.35E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	1.59E-04	1.59E-06	5.94E+03	9.45E-04	5.00E+00	5.29E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	9.56E-04	9.56E-06	5.94E+03	5.68E-03	5.00E+00	**8.80E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	7.76E-04	7.76E-06	5.94E+03	4.61E-03	5.00E+00	1.08E+03
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	2.00E-04	2.00E-06	5.94E+03	1.19E-03	5.00E+00	4.20E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	3.18E-04	3.18E-06	5.94E+03	1.89E-03	5.00E+00	2.65E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	4.50E-04	4.50E-06	3.40E+03	1.53E-03	5.00E+00	3.27E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	3.61E-04	3.61E-06	3.40E+03	1.22E-03	5.00E+00	4.08E+03
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	1.01E-04	1.01E-06	3.40E+03	3.42E-04	5.00E+00	1.46E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	1.59E-04	1.59E-06	3.40E+03	5.40E-04	5.00E+00	9.26E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	9.56E-04	9.56E-06	3.40E+03	3.25E-03	5.00E+00	1.54E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	7.76E-04	7.76E-06	3.40E+03	2.64E-03	5.00E+00	1.90E+03
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	2.00E-04	2.00E-06	3.40E+03	6.81E-04	5.00E+00	7.34E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	3.18E-04	3.18E-06	3.40E+03	1.08E-03	5.00E+00	4.63E+03
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	4.50E-04	1.13E-04	7.26E+01	8.17E-04	5.00E+00	6.12E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	3.61E-04	9.02E-05	7.26E+01	6.55E-04	5.00E+00	7.64E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	1.01E-04	2.52E-05	7.26E+01	1.83E-04	5.00E+00	2.73E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	1.59E-04	3.98E-05	7.26E+01	2.89E-04	5.00E+00	1.73E+04
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	9.56E-04	2.39E-04	7.26E+01	1.74E-03	5.00E+00	2.88E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	7.76E-04	1.94E-04	7.26E+01	1.41E-03	5.00E+00	3.55E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	2.00E-04	5.01E-05	7.26E+01	3.64E-04	5.00E+00	1.37E+04
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	3.18E-04	7.95E-05	7.26E+01	5.77E-04	5.00E+00	8.66E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	4.50E-04	1.13E-04	4.15E+01	4.67E-04	5.00E+00	1.07E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	3.61E-04	9.02E-05	4.15E+01	3.74E-04	5.00E+00	1.34E+04
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	1.01E-04	2.52E-05	4.15E+01	1.05E-04	5.00E+00	4.78E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	1.59E-04	3.98E-05	4.15E+01	1.65E-04	5.00E+00	3.03E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	9.56E-04	2.39E-04	4.15E+01	9.93E-04	5.00E+00	5.04E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	7.76E-04	1.94E-04	4.15E+01	8.05E-04	5.00E+00	6.21E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	2.00E-04	5.01E-05	4.15E+01	2.08E-04	5.00E+00	2.40E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	3.18E-04	7.95E-05	4.15E+01	3.30E-04	5.00E+00	1.51E+04

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	5.60E-03	1.00E-03	4.40E+02	7.23E-08	1.50E+01	2.08E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	4.56E-03	1.00E-03	4.40E+02	5.89E-08	1.50E+01	2.55E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	1.36E-03	1.00E-03	4.40E+02	1.76E-08	1.50E+01	8.54E+08
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	2.19E-03	1.00E-03	4.40E+02	2.83E-08	1.50E+01	5.31E+08
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.19E-02	1.00E-03	4.40E+02	1.54E-07	1.50E+01	9.77E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	9.84E-03	1.00E-03	4.40E+02	1.27E-07	1.50E+01	1.18E+08
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	2.73E-03	1.00E-03	4.40E+02	3.52E-08	1.50E+01	4.26E+08
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	4.38E-03	1.00E-03	4.40E+02	5.65E-08	1.50E+01	2.65E+08
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	5.60E-03	1.00E-03	2.26E+02	3.72E-08	1.50E+01	4.03E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	4.56E-03	1.00E-03	2.26E+02	3.03E-08	1.50E+01	4.95E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	1.36E-03	1.00E-03	2.26E+02	9.03E-09	1.50E+01	1.66E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	2.19E-03	1.00E-03	2.26E+02	1.45E-08	1.50E+01	1.03E+09
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.19E-02	1.00E-03	2.26E+02	7.90E-08	1.50E+01	1.90E+08
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	9.84E-03	1.00E-03	2.26E+02	6.54E-08	1.50E+01	2.30E+08
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	2.73E-03	1.00E-03	2.26E+02	1.81E-08	1.50E+01	8.27E+08
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	4.38E-03	1.00E-03	2.26E+02	2.91E-08	1.50E+01	5.16E+08
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	5.60E-03	1.00E-03	1.14E+03	1.88E-07	1.50E+01	7.98E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	4.56E-03	1.00E-03	1.14E+03	1.53E-07	1.50E+01	9.80E+07
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	1.36E-03	1.00E-03	1.14E+03	4.56E-08	1.50E+01	3.29E+08
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	2.19E-03	1.00E-03	1.14E+03	7.35E-08	1.50E+01	2.04E+08
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.19E-02	1.00E-03	1.14E+03	3.99E-07	1.50E+01	3.76E+07
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	9.84E-03	1.00E-03	1.14E+03	3.30E-07	1.50E+01	4.54E+07
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	2.73E-03	1.00E-03	1.14E+03	9.16E-08	1.50E+01	1.64E+08
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	4.38E-03	1.00E-03	1.14E+03	1.47E-07	1.50E+01	1.02E+08
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	5.60E-03	1.00E-03	5.89E+02	9.67E-08	1.50E+01	1.55E+08
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	4.56E-03	1.00E-03	5.89E+02	7.87E-08	1.50E+01	1.90E+08
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	1.36E-03	1.00E-03	5.89E+02	2.35E-08	1.50E+01	6.39E+08
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	2.19E-03	1.00E-03	5.89E+02	3.78E-08	1.50E+01	3.97E+08
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.19E-02	1.00E-03	5.89E+02	2.06E-07	1.50E+01	7.30E+07
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	9.84E-03	1.00E-03	5.89E+02	1.70E-07	1.50E+01	8.83E+07
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	2.73E-03	1.00E-03	5.89E+02	4.71E-08	1.50E+01	3.18E+08
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	4.38E-03	1.00E-03	5.89E+02	7.56E-08	1.50E+01	1.98E+08

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	5.60E-03	8.00E-03	4.48E-05	1.50E+01	3.35E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	4.56E-03	8.00E-03	3.65E-05	1.50E+01	4.11E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.36E-03	8.00E-03	1.09E-05	1.50E+01	1.38E+06
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.19E-03	8.00E-03	1.75E-05	1.50E+01	8.56E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.19E-02	8.00E-03	9.52E-05	1.50E+01	1.58E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	9.84E-03	8.00E-03	7.87E-05	1.50E+01	1.91E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.73E-03	8.00E-03	2.18E-05	1.50E+01	6.87E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	4.38E-03	8.00E-03	3.50E-05	1.50E+01	4.28E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	5.60E-03	8.93E-04	5.00E-06	1.50E+01	3.00E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	4.56E-03	8.93E-04	4.07E-06	1.50E+01	3.68E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.36E-03	8.93E-04	1.21E-06	1.50E+01	1.23E+07
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.19E-03	8.93E-04	1.96E-06	1.50E+01	7.67E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.19E-02	8.93E-04	1.06E-05	1.50E+01	1.41E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	9.84E-03	8.93E-04	8.79E-06	1.50E+01	1.71E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.73E-03	8.93E-04	2.44E-06	1.50E+01	6.15E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	4.38E-03	8.93E-04	3.91E-06	1.50E+01	3.83E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	5.60E-03	2.52E-02	1.41E-04	5.00E-03	2.8%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	4.56E-03	2.52E-02	1.15E-04	5.00E-03	2.3%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.36E-03	2.52E-02	3.42E-05	5.00E-03	0.68%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.19E-03	2.52E-02	5.51E-05	5.00E-03	1%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.19E-02	2.52E-02	2.99E-04	5.00E-03	6.0%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	9.84E-03	2.52E-02	2.48E-04	5.00E-03	5.0%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.73E-03	2.52E-02	6.87E-05	5.00E-03	1.4%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	4.38E-03	2.52E-02	1.10E-04	5.00E-03	2.2%
Typical	Aerial	Non-Forested	Plane	Berry - child	5.60E-03	6.67E-02	3.73E-04	5.00E-03	7.5%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	4.56E-03	6.67E-02	3.04E-04	5.00E-03	6.1%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.36E-03	6.67E-02	9.07E-05	5.00E-03	1.8%
Typical	Ground	Not applicable	High Boom	Berry - child	2.19E-03	6.67E-02	1.46E-04	5.00E-03	3%
Max	Aerial	Non-Forested	Plane	Berry - child	1.19E-02	6.67E-02	7.93E-04	5.00E-03	16%
Max	Aerial	Non-Forested	Helicopter	Berry - child	9.84E-03	6.67E-02	6.56E-04	5.00E-03	13%
Max	Ground	Not applicable	Low Boom	Berry - child	2.73E-03	6.67E-02	1.82E-04	5.00E-03	3.6%
Max	Ground	Not applicable	High Boom	Berry - child	4.38E-03	6.67E-02	2.92E-04	5.00E-03	5.8%
Typical	Aerial	Non-Forested	Plane	Berry - adult	5.60E-03	2.52E-02	1.41E-04	5.00E-03	2.8%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	4.56E-03	2.52E-02	1.15E-04	5.00E-03	2.3%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.36E-03	2.52E-02	3.42E-05	5.00E-03	0.68%
Typical	Ground	Not applicable	High Boom	Berry - adult	2.19E-03	2.52E-02	5.51E-05	5.00E-03	1%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.19E-02	2.52E-02	2.99E-04	5.00E-03	6.0%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	9.84E-03	2.52E-02	2.48E-04	5.00E-03	5.0%
Max	Ground	Not applicable	Low Boom	Berry - adult	2.73E-03	2.52E-02	6.87E-05	5.00E-03	1.4%
Max	Ground	Not applicable	High Boom	Berry - adult	4.38E-03	2.52E-02	1.10E-04	5.00E-03	2.2%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	5.60E-03	2.52E-02	1.41E-04	5.00E-03	2.8%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.56E-03	2.52E-02	1.15E-04	5.00E-03	2.3%
Typical	Ground	Not applicable	Low Boom	Angler	1.36E-03	2.52E-02	3.42E-05	5.00E-03	0.68%
Typical	Ground	Not applicable	High Boom	Angler	2.19E-03	2.52E-02	5.51E-05	5.00E-03	1%
Max	Aerial	Non-Forested	Plane	Angler	1.19E-02	2.52E-02	2.99E-04	5.00E-03	6.0%
Max	Aerial	Non-Forested	Helicopter	Angler	9.84E-03	2.52E-02	2.48E-04	5.00E-03	5.0%
Max	Ground	Not applicable	Low Boom	Angler	2.73E-03	2.52E-02	6.87E-05	5.00E-03	1.4%
Max	Ground	Not applicable	High Boom	Angler	4.38E-03	2.52E-02	1.10E-04	5.00E-03	2.2%
Typical	Aerial	Non-Forested	Plane	N.American - child	5.60E-03	3.33E-02	1.87E-04	5.00E-03	3.7%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.56E-03	3.33E-02	1.52E-04	5.00E-03	3.0%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.36E-03	3.33E-02	4.53E-05	5.00E-03	0.91%
Typical	Ground	Not applicable	High Boom	N.American - child	2.19E-03	3.33E-02	7.30E-05	5.00E-03	1%
Max	Aerial	Non-Forested	Plane	N.American - child	1.19E-02	3.33E-02	3.97E-04	5.00E-03	7.9%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.84E-03	3.33E-02	3.28E-04	5.00E-03	6.6%
Max	Ground	Not applicable	Low Boom	N.American - child	2.73E-03	3.33E-02	9.10E-05	5.00E-03	1.8%
Max	Ground	Not applicable	High Boom	N.American - child	4.38E-03	3.33E-02	1.46E-04	5.00E-03	2.9%
Typical	Aerial	Non-Forested	Plane	N.American - adult	5.60E-03	1.26E-02	7.04E-05	5.00E-03	1.4%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.56E-03	1.26E-02	5.74E-05	5.00E-03	1.1%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.36E-03	1.26E-02	1.71E-05	5.00E-03	0.34%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.19E-03	1.26E-02	2.75E-05	5.00E-03	0.6%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.19E-02	1.26E-02	1.50E-04	5.00E-03	3.0%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.84E-03	1.26E-02	1.24E-04	5.00E-03	2.5%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.73E-03	1.26E-02	3.43E-05	5.00E-03	0.69%
Max	Ground	Not applicable	High Boom	N.American - adult	4.38E-03	1.26E-02	5.51E-05	5.00E-03	1.1%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Fish
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	5.60E-03	1.00E+00	1.00E-06	7.67E+02	4.30E-06	5.00E-03	0.09%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.56E-03	1.00E+00	1.00E-06	7.67E+02	3.50E-06	5.00E-03	0.070%
Typical	Ground	Not applicable	Low Boom	Angler	1.36E-03	1.00E+00	1.00E-06	7.67E+02	1.04E-06	5.00E-03	0.021%
Typical	Ground	Not applicable	High Boom	Angler	2.19E-03	1.00E+00	1.00E-06	7.67E+02	1.68E-06	5.00E-03	0.03%
Max	Aerial	Non-Forested	Plane	Angler	1.19E-02	1.00E+00	1.00E-06	7.67E+02	9.13E-06	5.00E-03	0.18%
Max	Aerial	Non-Forested	Helicopter	Angler	9.84E-03	1.00E+00	1.00E-06	7.67E+02	7.55E-06	5.00E-03	0.15%
Max	Ground	Not applicable	Low Boom	Angler	2.73E-03	1.00E+00	1.00E-06	7.67E+02	2.09E-06	5.00E-03	0.042%
Max	Ground	Not applicable	High Boom	Angler	4.38E-03	1.00E+00	1.00E-06	7.67E+02	3.36E-06	5.00E-03	0.067%
Typical	Aerial	Non-Forested	Plane	N.American - child	5.60E-03	1.00E+00	1.00E-06	1.11E+04	6.23E-05	5.00E-03	1.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.56E-03	1.00E+00	1.00E-06	1.11E+04	5.08E-05	5.00E-03	1.0%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.36E-03	1.00E+00	1.00E-06	1.11E+04	1.51E-05	5.00E-03	0.30%
Typical	Ground	Not applicable	High Boom	N.American - child	2.19E-03	1.00E+00	1.00E-06	1.11E+04	2.44E-05	5.00E-03	0.5%
Max	Aerial	Non-Forested	Plane	N.American - child	1.19E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	5.00E-03	2.6%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.84E-03	1.00E+00	1.00E-06	1.11E+04	1.10E-04	5.00E-03	2.2%
Max	Ground	Not applicable	Low Boom	N.American - child	2.73E-03	1.00E+00	1.00E-06	1.11E+04	3.04E-05	5.00E-03	0.61%
Max	Ground	Not applicable	High Boom	N.American - child	4.38E-03	1.00E+00	1.00E-06	1.11E+04	4.88E-05	5.00E-03	1.0%
Typical	Aerial	Non-Forested	Plane	N.American - adult	5.60E-03	1.00E+00	1.00E-06	1.11E+04	6.23E-05	5.00E-03	1.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.56E-03	1.00E+00	1.00E-06	1.11E+04	5.08E-05	5.00E-03	1.0%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.36E-03	1.00E+00	1.00E-06	1.11E+04	1.51E-05	5.00E-03	0.30%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.19E-03	1.00E+00	1.00E-06	1.11E+04	2.44E-05	5.00E-03	0.5%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.19E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	5.00E-03	2.6%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.84E-03	1.00E+00	1.00E-06	1.11E+04	1.10E-04	5.00E-03	2.2%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.73E-03	1.00E+00	1.00E-06	1.11E+04	3.04E-05	5.00E-03	0.61%
Max	Ground	Not applicable	High Boom	N.American - adult	4.38E-03	1.00E+00	1.00E-06	1.11E+04	4.88E-05	5.00E-03	1.0%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	5.00E-03	62%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	5.00E-03	16.0%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	5.00E-03	25.4%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	5.00E-03	62%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	5.00E-03	16.1%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	5.00E-03	25.6%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	5.00E-03	36.0%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	5.00E-03	28.9%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	5.00E-03	12.7%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	5.00E-03	62%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	5.00E-03	16.0%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	5.00E-03	25.4%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	5.00E-03	36.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	5.00E-03	29.0%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	5.00E-03	8.1%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	5.00E-03	12.8%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	5.00E-03	77%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	5.00E-03	62%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	5.00E-03	16.1%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	5.00E-03	25.6%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	1.55E+03	2.21E+04	--	--	2.8%	--	--	1.39E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	1.93E+03	2.76E+04	--	--	2.3%	--	--	1.73E+00
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	6.92E+03	9.86E+04	--	--	0.7%	--	--	6.19E+00
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	4.38E+03	6.25E+04	--	--	1%	--	--	3.92E+00
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	**7.29E+02**	1.04E+04	--	--	6.0%	--	--	**6.55E-01**
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	**8.98E+02**	1.28E+04	--	--	5.0%	--	--	**8.06E-01**
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	3.48E+03	4.96E+04	--	--	1.4%	--	--	3.11E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	2.19E+03	3.12E+04	--	--	2.2%	--	--	1.96E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**5.95E+02**	7.34E+03	--	--	7.5%	36.0%	--	**4.44E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**7.43E+02**	9.17E+03	--	--	6.1%	28.9%	--	**5.54E-01**
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	2.66E+03	3.28E+04	--	--	1.8%	8.1%	--	1.98E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	1.68E+03	2.08E+04	--	--	3%	12.7%	--	1.25E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**2.80E+02**	3.46E+03	--	--	16%	77%	--	**2.09E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**3.45E+02**	4.26E+03	--	--	13%	62%	--	**2.57E-01**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	1.34E+03	1.65E+04	--	--	3.6%	16.0%	--	**9.94E-01**
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	**8.42E+02**	1.04E+04	--	--	5.8%	25.4%	--	**6.26E-01**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	1.55E+03	1.28E+04	--	--	2.8%	36.2%	--	**8.98E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	1.93E+03	1.60E+04	--	--	2.3%	29.0%	--	1.12E+00
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	6.92E+03	5.74E+04	--	--	0.7%	8.1%	--	4.00E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	4.38E+03	3.64E+04	--	--	1%	12.8%	--	2.53E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	**7.29E+02**	6.04E+03	--	--	6.0%	77%	--	**4.23E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	**8.98E+02**	7.45E+03	--	--	5.0%	62%	--	**5.20E-01**
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	3.48E+03	2.88E+04	--	--	1.4%	16.1%	--	2.01E+00
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	2.19E+03	1.82E+04	--	--	2.2%	25.6%	--	1.27E+00
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	1.55E+03	2.21E+04	--	--	2.8%	--	0.09%	1.39E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	1.93E+03	2.76E+04	--	--	2.3%	--	0.070%	1.73E+00
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	6.92E+03	9.86E+04	--	--	0.7%	--	0.021%	6.18E+00
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	4.38E+03	6.25E+04	--	--	1%	--	0.03%	3.92E+00
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	**7.29E+02**	1.04E+04	--	--	6.0%	--	0.18%	**6.54E-01**
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	**8.98E+02**	1.28E+04	--	--	5.0%	--	0.15%	**8.05E-01**
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	3.48E+03	4.96E+04	--	--	1.4%	--	0.042%	3.11E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	2.19E+03	3.12E+04	--	--	2.2%	--	0.067%	1.96E+00

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**5.95E+02**	1.87E+03	--	--	--	--	--	**4.51E-01**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**7.43E+02**	2.33E+03	--	--	--	--	--	**5.63E-01**
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	2.66E+03	8.35E+03	--	--	--	--	--	2.02E+00
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	1.68E+03	5.29E+03	--	--	--	--	--	1.28E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**2.80E+02**	**8.80E+02**	--	--	--	--	--	**2.12E-01**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**3.45E+02**	1.08E+03	--	--	--	--	--	**2.62E-01**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	1.34E+03	4.20E+03	--	--	--	--	--	1.01E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	**8.42E+02**	2.65E+03	--	--	--	--	--	**6.39E-01**
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	1.55E+03	3.27E+03	--	--	--	--	--	1.05E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	1.93E+03	4.08E+03	--	--	--	--	--	1.31E+00
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	6.92E+03	1.46E+04	--	--	--	--	--	4.69E+00
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	4.38E+03	9.26E+03	--	--	--	--	--	2.98E+00
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	**7.29E+02**	1.54E+03	--	--	--	--	--	**4.95E-01**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	**8.98E+02**	1.90E+03	--	--	--	--	--	**6.10E-01**
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	3.48E+03	7.34E+03	--	--	--	--	--	2.36E+00
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	2.19E+03	4.63E+03	--	--	--	--	--	1.49E+00
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**5.95E+02**	6.12E+03	7.98E+07	--	3.7%	36.0%	1.2%	**4.44E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**7.43E+02**	7.64E+03	9.80E+07	--	3.0%	28.9%	1.0%	**5.54E-01**
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	2.66E+03	2.73E+04	3.29E+08	--	0.91%	8.1%	0.30%	1.98E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	1.68E+03	1.73E+04	2.04E+08	--	1%	12.7%	0.5%	1.25E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**2.80E+02**	2.88E+03	3.76E+07	--	7.9%	77%	2.6%	**2.09E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**3.45E+02**	3.55E+03	4.54E+07	--	6.6%	62%	2.2%	**2.57E-01**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	1.34E+03	1.37E+04	1.64E+08	--	1.8%	16.0%	0.61%	**9.94E-01**
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	**8.42E+02**	8.66E+03	1.02E+08	--	2.9%	25.4%	1.0%	**6.26E-01**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	1.55E+03	1.07E+04	1.55E+08	--	1.4%	36.2%	1.2%	**8.86E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	1.93E+03	1.34E+04	1.90E+08	--	1.1%	29.0%	1.0%	1.11E+00
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	6.92E+03	4.78E+04	6.39E+08	--	0.34%	8.1%	0.30%	3.95E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	4.38E+03	3.03E+04	3.97E+08	--	0.6%	12.8%	0.5%	2.50E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	**7.29E+02**	5.04E+03	7.30E+07	--	3.0%	77%	2.6%	**4.17E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	**8.98E+02**	6.21E+03	8.83E+07	--	2.5%	62%	2.2%	**5.14E-01**
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	3.48E+03	2.40E+04	3.18E+08	--	0.69%	16.1%	0.61%	1.99E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	2.19E+03	1.51E+04	1.98E+08	--	1.1%	25.6%	1.0%	1.25E+00

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	2.08E+08	3.35E+05	--	--	--	3.34E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	2.55E+08	4.11E+05	--	--	--	4.11E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	8.54E+08	1.38E+06	--	--	--	1.38E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	5.31E+08	8.56E+05	--	--	--	8.55E+02
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	9.77E+07	1.58E+05	--	--	--	1.57E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.18E+08	1.91E+05	--	--	--	1.90E+02
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	4.26E+08	6.87E+05	--	--	--	6.86E+02
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	2.65E+08	4.28E+05	--	--	--	4.27E+02
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	4.03E+08	3.00E+06	--	--	--	2.98E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	4.95E+08	3.68E+06	--	--	--	3.66E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	1.66E+09	1.23E+07	--	--	--	1.23E+04
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	1.03E+09	7.67E+06	--	--	--	7.61E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.90E+08	1.41E+06	--	--	--	1.40E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.30E+08	1.71E+06	--	--	--	1.69E+03
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	8.27E+08	6.15E+06	--	--	--	6.11E+03
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	5.16E+08	3.83E+06	--	--	--	3.81E+03

--Receptor not exposed via this pathway.
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Long-term Exposure
Herbicide: **2,4-D Aquatic (Floating and Emerged)**
Programs: **Aquatic Sites**

	Typical Application Rate Scenario ARIs (a)				Maximum Application Rate Scenario ARIs (a)			
AgDrift Scenario:	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Not applicable**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	1.4	2	6	4	**0.7**	**0.8**	3	2
Berry Picker (Child)	**0.4**	**0.6**	2	1.3	**0.2**	**0.3**	**0.99**	**0.6**
Berry Picker (Adult)	**0.9**	1.1	4	3	**0.4**	**0.5**	2	1.3
Angler (Adult)	1.4	2	6	4	**0.7**	**0.8**	3	2
Residential (Child)	**0.5**	**0.6**	2	1.3	**0.2**	**0.3**	1.0	**0.6**
Residential (Adult)	1.1	1.3	5	3	**0.5**	**0.6**	2.4	1.5
Native American (Child)	**0.4**	**0.6**	2	1.3	**0.2**	**0.3**	**0.99**	**0.6**
Native American (Adult)	**0.9**	1.1	4	3	**0.4**	**0.5**	2	1.3
Swimmer (Child)	334	411	1,376	855	157	190	686	427
Swimmer (Adult)	2,977	3,656	12,259	7,615	1,401	1,694	6,107	3,806

ARI - Aggregate Risk Index. Values less than one represent a level of concern and are highlighted.
(a) - Application rates are shown on Table 4-1 and are the same for each program.
(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.
The Non-Forested land type is used to model pond concentrations. It is assumed that spray drift settles to an adjacent, non-target pond.
(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	1.29E-03	7.17E+01	9.25E-03	1.50E+01	1.62E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	1.05E-03	7.17E+01	7.51E-03	1.50E+01	2.00E+03
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	2.71E-04	7.17E+01	1.94E-03	1.50E+01	7.72E+03
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	4.29E-04	7.17E+01	3.08E-03	1.50E+01	4.88E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	2.44E-03	7.17E+01	1.75E-02	1.50E+01	**8.56E+02**
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	1.92E-03	7.17E+01	1.38E-02	1.50E+01	1.09E+03
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	5.43E-04	7.17E+01	3.89E-03	1.50E+01	3.85E+03
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	8.58E-04	7.17E+01	6.15E-03	1.50E+01	2.44E+03
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	1.29E-03	1.87E+02	2.41E-02	1.50E+01	**6.23E+02**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	1.05E-03	1.87E+02	1.95E-02	1.50E+01	**7.67E+02**
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	2.71E-04	1.87E+02	5.06E-03	1.50E+01	2.96E+03
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	4.29E-04	1.87E+02	8.01E-03	1.50E+01	1.87E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	2.44E-03	1.87E+02	4.56E-02	1.50E+01	**3.29E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	1.92E-03	1.87E+02	3.59E-02	1.50E+01	**4.18E+02**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	5.43E-04	1.87E+02	1.01E-02	1.50E+01	1.48E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	8.58E-04	1.87E+02	1.60E-02	1.50E+01	**9.37E+02**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	1.29E-03	7.17E+01	9.25E-03	1.50E+01	1.62E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	1.05E-03	7.17E+01	7.51E-03	1.50E+01	2.00E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	2.71E-04	7.17E+01	1.94E-03	1.50E+01	7.72E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	4.29E-04	7.17E+01	3.08E-03	1.50E+01	4.88E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	2.44E-03	7.17E+01	1.75E-02	1.50E+01	**8.56E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	1.92E-03	7.17E+01	1.38E-02	1.50E+01	1.09E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	5.43E-04	7.17E+01	3.89E-03	1.50E+01	3.85E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	8.58E-04	7.17E+01	6.15E-03	1.50E+01	2.44E+03
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	1.29E-03	7.17E+01	9.25E-03	1.50E+01	1.62E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	1.05E-03	7.17E+01	7.51E-03	1.50E+01	2.00E+03
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	2.71E-04	7.17E+01	1.94E-03	1.50E+01	7.72E+03
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	4.29E-04	7.17E+01	3.08E-03	1.50E+01	4.88E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	2.44E-03	7.17E+01	1.75E-02	1.50E+01	**8.56E+02**
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	1.92E-03	7.17E+01	1.38E-02	1.50E+01	1.09E+03
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	5.43E-04	7.17E+01	3.89E-03	1.50E+01	3.85E+03
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	8.58E-04	7.17E+01	6.15E-03	1.50E+01	2.44E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	1.29E-03	1.87E+02	2.41E-02	1.50E+01	**6.23E+02**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	1.05E-03	1.87E+02	1.95E-02	1.50E+01	**7.67E+02**
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	2.71E-04	1.87E+02	5.06E-03	1.50E+01	2.96E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	4.29E-04	1.87E+02	8.01E-03	1.50E+01	1.87E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	2.44E-03	1.87E+02	4.56E-02	1.50E+01	**3.29E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	1.92E-03	1.87E+02	3.59E-02	1.50E+01	**4.18E+02**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	5.43E-04	1.87E+02	1.01E-02	1.50E+01	1.48E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	8.58E-04	1.87E+02	1.60E-02	1.50E+01	**9.37E+02**
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	1.29E-03	7.17E+01	9.25E-03	1.50E+01	1.62E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	1.05E-03	7.17E+01	7.51E-03	1.50E+01	2.00E+03
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	2.71E-04	7.17E+01	1.94E-03	1.50E+01	7.72E+03
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	4.29E-04	7.17E+01	3.08E-03	1.50E+01	4.88E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	2.44E-03	7.17E+01	1.75E-02	1.50E+01	**8.56E+02**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	1.92E-03	7.17E+01	1.38E-02	1.50E+01	1.09E+03
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	5.43E-04	7.17E+01	3.89E-03	1.50E+01	3.85E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	8.58E-04	7.17E+01	6.15E-03	1.50E+01	2.44E+03
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	1.29E-03	1.87E+02	2.41E-02	1.50E+01	**6.23E+02**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	1.05E-03	1.87E+02	1.95E-02	1.50E+01	**7.67E+02**
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	2.71E-04	1.87E+02	5.06E-03	1.50E+01	2.96E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	4.29E-04	1.87E+02	8.01E-03	1.50E+01	1.87E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	2.44E-03	1.87E+02	4.56E-02	1.50E+01	**3.29E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	1.92E-03	1.87E+02	3.59E-02	1.50E+01	**4.18E+02**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	5.43E-04	1.87E+02	1.01E-02	1.50E+01	1.48E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	8.58E-04	1.87E+02	1.60E-02	1.50E+01	**9.37E+02**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	1.29E-03	7.17E+01	9.25E-03	1.50E+01	1.62E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	1.05E-03	7.17E+01	7.51E-03	1.50E+01	2.00E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	2.71E-04	7.17E+01	1.94E-03	1.50E+01	7.72E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	4.29E-04	7.17E+01	3.08E-03	1.50E+01	4.88E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	2.44E-03	7.17E+01	1.75E-02	1.50E+01	**8.56E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	1.92E-03	7.17E+01	1.38E-02	1.50E+01	1.09E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	5.43E-04	7.17E+01	3.89E-03	1.50E+01	3.85E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	8.58E-04	7.17E+01	6.15E-03	1.50E+01	2.44E+03

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	1.29E-03	3.23E-04	2.01E+01	6.49E-04	1.50E+01	2.31E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	1.05E-03	2.62E-04	2.01E+01	5.27E-04	1.50E+01	2.85E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	2.71E-04	6.78E-05	2.01E+01	1.36E-04	1.50E+01	1.10E+05
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	4.29E-04	1.07E-04	2.01E+01	2.16E-04	1.50E+01	6.95E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	2.44E-03	6.11E-04	2.01E+01	1.23E-03	1.50E+01	1.22E+04
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	1.92E-03	4.81E-04	2.01E+01	9.68E-04	1.50E+01	1.55E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	5.43E-04	1.36E-04	2.01E+01	2.73E-04	1.50E+01	5.49E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	8.58E-04	2.14E-04	2.01E+01	4.32E-04	1.50E+01	3.47E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	1.29E-03	3.23E-04	6.05E+01	1.95E-03	1.50E+01	7.69E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	1.05E-03	2.62E-04	6.05E+01	1.58E-03	1.50E+01	9.47E+03
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	2.71E-04	6.78E-05	6.05E+01	4.10E-04	1.50E+01	3.66E+04
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	4.29E-04	1.07E-04	6.05E+01	6.49E-04	1.50E+01	2.31E+04
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	2.44E-03	6.11E-04	6.05E+01	3.69E-03	1.50E+01	4.06E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	1.92E-03	4.81E-04	6.05E+01	2.91E-03	1.50E+01	5.15E+03
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	5.43E-04	1.36E-04	6.05E+01	8.22E-04	1.50E+01	1.83E+04
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	8.58E-04	2.14E-04	6.05E+01	1.30E-03	1.50E+01	1.16E+04
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	1.29E-03	3.23E-04	3.46E+01	1.12E-03	1.50E+01	1.34E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	1.05E-03	2.62E-04	3.46E+01	9.06E-04	1.50E+01	1.66E+04
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	2.71E-04	6.78E-05	3.46E+01	2.34E-04	1.50E+01	6.40E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	4.29E-04	1.07E-04	3.46E+01	3.71E-04	1.50E+01	4.04E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	2.44E-03	6.11E-04	3.46E+01	2.11E-03	1.50E+01	7.10E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	1.92E-03	4.81E-04	3.46E+01	1.66E-03	1.50E+01	9.01E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	5.43E-04	1.36E-04	3.46E+01	4.70E-04	1.50E+01	3.19E+04
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	8.58E-04	2.14E-04	3.46E+01	7.42E-04	1.50E+01	2.02E+04
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	1.29E-03	3.23E-04	2.01E+01	6.49E-04	1.50E+01	2.31E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	1.05E-03	2.62E-04	2.01E+01	5.27E-04	1.50E+01	2.85E+04
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	2.71E-04	6.78E-05	2.01E+01	1.36E-04	1.50E+01	1.10E+05
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	4.29E-04	1.07E-04	2.01E+01	2.16E-04	1.50E+01	6.95E+04
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	2.44E-03	6.11E-04	2.01E+01	1.23E-03	1.50E+01	1.22E+04
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	1.92E-03	4.81E-04	2.01E+01	9.68E-04	1.50E+01	1.55E+04
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	5.43E-04	1.36E-04	2.01E+01	2.73E-04	1.50E+01	5.49E+04
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	8.58E-04	2.14E-04	2.01E+01	4.32E-04	1.50E+01	3.47E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	1.29E-03	1.29E-05	5.94E+03	7.66E-03	1.50E+01	1.96E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	1.05E-03	1.05E-05	5.94E+03	6.22E-03	1.50E+01	2.41E+03
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	2.71E-04	2.71E-06	5.94E+03	1.61E-03	1.50E+01	9.32E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	4.29E-04	4.29E-06	5.94E+03	2.55E-03	1.50E+01	5.89E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	2.44E-03	2.44E-05	5.94E+03	1.45E-02	1.50E+01	1.03E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	1.92E-03	1.92E-05	5.94E+03	1.14E-02	1.50E+01	1.31E+03
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	5.43E-04	5.43E-06	5.94E+03	3.23E-03	1.50E+01	4.65E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	8.58E-04	8.58E-06	5.94E+03	5.10E-03	1.50E+01	2.94E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	1.29E-03	1.29E-05	3.40E+03	4.38E-03	1.50E+01	3.42E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	1.05E-03	1.05E-05	3.40E+03	3.56E-03	1.50E+01	4.22E+03
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	2.71E-04	2.71E-06	3.40E+03	9.21E-04	1.50E+01	1.63E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	4.29E-04	4.29E-06	3.40E+03	1.46E-03	1.50E+01	1.03E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	2.44E-03	2.44E-05	3.40E+03	8.30E-03	1.50E+01	1.81E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	1.92E-03	1.92E-05	3.40E+03	6.53E-03	1.50E+01	2.30E+03
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	5.43E-04	5.43E-06	3.40E+03	1.84E-03	1.50E+01	8.13E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	8.58E-04	8.58E-06	3.40E+03	2.91E-03	1.50E+01	5.15E+03
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	1.29E-03	3.23E-04	7.26E+01	2.34E-03	1.50E+01	6.41E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	1.05E-03	2.62E-04	7.26E+01	1.90E-03	1.50E+01	7.89E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	2.71E-04	6.78E-05	7.26E+01	4.92E-04	1.50E+01	3.05E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	4.29E-04	1.07E-04	7.26E+01	7.79E-04	1.50E+01	1.93E+04
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	2.44E-03	6.11E-04	7.26E+01	4.43E-03	1.50E+01	3.38E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	1.92E-03	4.81E-04	7.26E+01	3.49E-03	1.50E+01	4.30E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	5.43E-04	1.36E-04	7.26E+01	9.86E-04	1.50E+01	1.52E+04
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	8.58E-04	2.14E-04	7.26E+01	1.56E-03	1.50E+01	9.63E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	1.29E-03	3.23E-04	4.15E+01	1.34E-03	1.50E+01	1.12E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	1.05E-03	2.62E-04	4.15E+01	1.09E-03	1.50E+01	1.38E+04
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	2.71E-04	6.78E-05	4.15E+01	2.81E-04	1.50E+01	5.33E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	4.29E-04	1.07E-04	4.15E+01	4.45E-04	1.50E+01	3.37E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	2.44E-03	6.11E-04	4.15E+01	2.53E-03	1.50E+01	5.92E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	1.92E-03	4.81E-04	4.15E+01	2.00E-03	1.50E+01	7.51E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	5.43E-04	1.36E-04	4.15E+01	5.64E-04	1.50E+01	2.66E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	8.58E-04	2.14E-04	4.15E+01	8.90E-04	1.50E+01	1.68E+04

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.62E-02	1.00E-03	4.40E+02	2.09E-07	1.50E+01	7.18E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	1.34E-02	1.00E-03	4.40E+02	1.73E-07	1.50E+01	8.65E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	3.68E-03	1.00E-03	4.40E+02	4.75E-08	1.50E+01	3.16E+08
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	5.91E-03	1.00E-03	4.40E+02	7.63E-08	1.50E+01	1.97E+08
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	3.15E-02	1.00E-03	4.40E+02	4.07E-07	1.50E+01	3.69E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	2.59E-02	1.00E-03	4.40E+02	3.34E-07	1.50E+01	4.49E+07
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	7.36E-03	1.00E-03	4.40E+02	9.50E-08	1.50E+01	1.58E+08
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	1.18E-02	1.00E-03	4.40E+02	1.53E-07	1.50E+01	9.83E+07
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.62E-02	1.00E-03	2.26E+02	1.08E-07	1.50E+01	1.39E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	1.34E-02	1.00E-03	2.26E+02	8.93E-08	1.50E+01	1.68E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	3.68E-03	1.00E-03	2.26E+02	2.45E-08	1.50E+01	6.13E+08
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	5.91E-03	1.00E-03	2.26E+02	3.93E-08	1.50E+01	3.82E+08
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	3.15E-02	1.00E-03	2.26E+02	2.09E-07	1.50E+01	7.17E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	2.59E-02	1.00E-03	2.26E+02	1.72E-07	1.50E+01	8.73E+07
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	7.36E-03	1.00E-03	2.26E+02	4.89E-08	1.50E+01	3.07E+08
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	1.18E-02	1.00E-03	2.26E+02	7.85E-08	1.50E+01	1.91E+08
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.62E-02	1.00E-03	1.14E+03	5.43E-07	1.50E+01	2.76E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	1.34E-02	1.00E-03	1.14E+03	4.51E-07	1.50E+01	3.33E+07
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	3.68E-03	1.00E-03	1.14E+03	1.24E-07	1.50E+01	1.21E+08
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	5.91E-03	1.00E-03	1.14E+03	1.98E-07	1.50E+01	7.56E+07
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	3.15E-02	1.00E-03	1.14E+03	1.06E-06	1.50E+01	1.42E+07
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	2.59E-02	1.00E-03	1.14E+03	8.68E-07	1.50E+01	1.73E+07
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	7.36E-03	1.00E-03	1.14E+03	2.47E-07	1.50E+01	6.07E+07
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	1.18E-02	1.00E-03	1.14E+03	3.97E-07	1.50E+01	3.78E+07
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.62E-02	1.00E-03	5.89E+02	2.80E-07	1.50E+01	5.36E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	1.34E-02	1.00E-03	5.89E+02	2.32E-07	1.50E+01	6.46E+07
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	3.68E-03	1.00E-03	5.89E+02	6.36E-08	1.50E+01	2.36E+08
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	5.91E-03	1.00E-03	5.89E+02	1.02E-07	1.50E+01	1.47E+08
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	3.15E-02	1.00E-03	5.89E+02	5.44E-07	1.50E+01	2.76E+07
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	2.59E-02	1.00E-03	5.89E+02	4.47E-07	1.50E+01	3.36E+07
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	7.36E-03	1.00E-03	5.89E+02	1.27E-07	1.50E+01	1.18E+08
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	1.18E-02	1.00E-03	5.89E+02	2.04E-07	1.50E+01	7.35E+07

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.62E-02	8.00E-03	1.30E-04	1.50E+01	1.16E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.34E-02	8.00E-03	1.08E-04	1.50E+01	1.40E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	3.68E-03	8.00E-03	2.94E-05	1.50E+01	5.09E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	5.91E-03	8.00E-03	4.73E-05	1.50E+01	3.17E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	3.15E-02	8.00E-03	2.52E-04	1.50E+01	5.95E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.59E-02	8.00E-03	2.07E-04	1.50E+01	7.25E+04
Max	Ground	Not applicable	Low Boom	Swimmer-child	7.36E-03	8.00E-03	5.89E-05	1.50E+01	2.55E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	1.18E-02	8.00E-03	9.46E-05	1.50E+01	1.59E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.62E-02	8.93E-04	1.45E-05	1.50E+01	1.04E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.34E-02	8.93E-04	1.20E-05	1.50E+01	1.25E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	3.68E-03	8.93E-04	3.29E-06	1.50E+01	4.56E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	5.91E-03	8.93E-04	5.28E-06	1.50E+01	2.84E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	3.15E-02	8.93E-04	2.81E-05	1.50E+01	5.33E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.59E-02	8.93E-04	2.31E-05	1.50E+01	6.50E+05
Max	Ground	Not applicable	Low Boom	Swimmer-adult	7.36E-03	8.93E-04	6.58E-06	1.50E+01	2.28E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.18E-02	8.93E-04	1.06E-05	1.50E+01	1.42E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.62E-02	2.52E-02	4.07E-04	5.00E-03	8.1%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.34E-02	2.52E-02	3.38E-04	5.00E-03	6.8%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	3.68E-03	2.52E-02	9.26E-05	5.00E-03	1.9%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	5.91E-03	2.52E-02	1.49E-04	5.00E-03	3.0%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	3.15E-02	2.52E-02	7.92E-04	5.00E-03	16%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.59E-02	2.52E-02	6.50E-04	5.00E-03	13%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	7.36E-03	2.52E-02	1.85E-04	5.00E-03	3.7%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.18E-02	2.52E-02	2.97E-04	5.00E-03	5.9%
Typical	Aerial	Non-Forested	Plane	Berry - child	1.62E-02	6.67E-02	1.08E-03	5.00E-03	22%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.34E-02	6.67E-02	8.96E-04	5.00E-03	18%
Typical	Ground	Not applicable	Low Boom	Berry - child	3.68E-03	6.67E-02	2.45E-04	5.00E-03	4.9%
Typical	Ground	Not applicable	High Boom	Berry - child	5.91E-03	6.67E-02	3.94E-04	5.00E-03	7.9%
Max	Aerial	Non-Forested	Plane	Berry - child	3.15E-02	6.67E-02	2.10E-03	5.00E-03	42%
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.59E-02	6.67E-02	1.72E-03	5.00E-03	34%
Max	Ground	Not applicable	Low Boom	Berry - child	7.36E-03	6.67E-02	4.91E-04	5.00E-03	9.8%
Max	Ground	Not applicable	High Boom	Berry - child	1.18E-02	6.67E-02	7.88E-04	5.00E-03	16%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.62E-02	2.52E-02	4.07E-04	5.00E-03	8.1%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.34E-02	2.52E-02	3.38E-04	5.00E-03	6.8%
Typical	Ground	Not applicable	Low Boom	Berry - adult	3.68E-03	2.52E-02	9.26E-05	5.00E-03	1.9%
Typical	Ground	Not applicable	High Boom	Berry - adult	5.91E-03	2.52E-02	1.49E-04	5.00E-03	3.0%
Max	Aerial	Non-Forested	Plane	Berry - adult	3.15E-02	2.52E-02	7.92E-04	5.00E-03	16%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.59E-02	2.52E-02	6.50E-04	5.00E-03	13%
Max	Ground	Not applicable	Low Boom	Berry - adult	7.36E-03	2.52E-02	1.85E-04	5.00E-03	3.7%
Max	Ground	Not applicable	High Boom	Berry - adult	1.18E-02	2.52E-02	2.97E-04	5.00E-03	5.9%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.62E-02	2.52E-02	4.07E-04	5.00E-03	8.1%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.34E-02	2.52E-02	3.38E-04	5.00E-03	6.8%
Typical	Ground	Not applicable	Low Boom	Angler	3.68E-03	2.52E-02	9.26E-05	5.00E-03	1.9%
Typical	Ground	Not applicable	High Boom	Angler	5.91E-03	2.52E-02	1.49E-04	5.00E-03	3.0%
Max	Aerial	Non-Forested	Plane	Angler	3.15E-02	2.52E-02	7.92E-04	5.00E-03	16%
Max	Aerial	Non-Forested	Helicopter	Angler	2.59E-02	2.52E-02	6.50E-04	5.00E-03	13%
Max	Ground	Not applicable	Low Boom	Angler	7.36E-03	2.52E-02	1.85E-04	5.00E-03	3.7%
Max	Ground	Not applicable	High Boom	Angler	1.18E-02	2.52E-02	2.97E-04	5.00E-03	5.9%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.62E-02	3.33E-02	5.40E-04	5.00E-03	11%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.34E-02	3.33E-02	4.48E-04	5.00E-03	9.0%
Typical	Ground	Not applicable	Low Boom	N.American - child	3.68E-03	3.33E-02	1.23E-04	5.00E-03	2.5%
Typical	Ground	Not applicable	High Boom	N.American - child	5.91E-03	3.33E-02	1.97E-04	5.00E-03	3.9%
Max	Aerial	Non-Forested	Plane	N.American - child	3.15E-02	3.33E-02	1.05E-03	5.00E-03	21%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.59E-02	3.33E-02	8.62E-04	5.00E-03	17%
Max	Ground	Not applicable	Low Boom	N.American - child	7.36E-03	3.33E-02	2.45E-04	5.00E-03	4.9%
Max	Ground	Not applicable	High Boom	N.American - child	1.18E-02	3.33E-02	3.94E-04	5.00E-03	7.9%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.62E-02	1.26E-02	2.04E-04	5.00E-03	4.1%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.34E-02	1.26E-02	1.69E-04	5.00E-03	3.4%
Typical	Ground	Not applicable	Low Boom	N.American - adult	3.68E-03	1.26E-02	4.63E-05	5.00E-03	0.9%
Typical	Ground	Not applicable	High Boom	N.American - adult	5.91E-03	1.26E-02	7.44E-05	5.00E-03	1.5%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.15E-02	1.26E-02	3.96E-04	5.00E-03	7.9%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.59E-02	1.26E-02	3.25E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	N.American - adult	7.36E-03	1.26E-02	9.26E-05	5.00E-03	1.9%
Max	Ground	Not applicable	High Boom	N.American - adult	1.18E-02	1.26E-02	1.49E-04	5.00E-03	3.0%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Fish
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.62E-02	1.00E+00	1.00E-06	7.67E+02	1.24E-05	5.00E-03	0.25%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.34E-02	1.00E+00	1.00E-06	7.67E+02	1.03E-05	5.00E-03	0.21%
Typical	Ground	Not applicable	Low Boom	Angler	3.68E-03	1.00E+00	1.00E-06	7.67E+02	2.82E-06	5.00E-03	0.056%
Typical	Ground	Not applicable	High Boom	Angler	5.91E-03	1.00E+00	1.00E-06	7.67E+02	4.54E-06	5.00E-03	0.09%
Max	Aerial	Non-Forested	Plane	Angler	3.15E-02	1.00E+00	1.00E-06	7.67E+02	2.42E-05	5.00E-03	0.48%
Max	Aerial	Non-Forested	Helicopter	Angler	2.59E-02	1.00E+00	1.00E-06	7.67E+02	1.98E-05	5.00E-03	0.40%
Max	Ground	Not applicable	Low Boom	Angler	7.36E-03	1.00E+00	1.00E-06	7.67E+02	5.65E-06	5.00E-03	0.11%
Max	Ground	Not applicable	High Boom	Angler	1.18E-02	1.00E+00	1.00E-06	7.67E+02	9.07E-06	5.00E-03	0.18%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.62E-02	1.00E+00	1.00E-06	1.11E+04	1.80E-04	5.00E-03	3.6%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.34E-02	1.00E+00	1.00E-06	1.11E+04	1.50E-04	5.00E-03	3.0%
Typical	Ground	Not applicable	Low Boom	N.American - child	3.68E-03	1.00E+00	1.00E-06	1.11E+04	4.10E-05	5.00E-03	0.82%
Typical	Ground	Not applicable	High Boom	N.American - child	5.91E-03	1.00E+00	1.00E-06	1.11E+04	6.58E-05	5.00E-03	1.3%
Max	Aerial	Non-Forested	Plane	N.American - child	3.15E-02	1.00E+00	1.00E-06	1.11E+04	3.51E-04	5.00E-03	7.0%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.59E-02	1.00E+00	1.00E-06	1.11E+04	2.88E-04	5.00E-03	5.8%
Max	Ground	Not applicable	Low Boom	N.American - child	7.36E-03	1.00E+00	1.00E-06	1.11E+04	8.20E-05	5.00E-03	1.6%
Max	Ground	Not applicable	High Boom	N.American - child	1.18E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	5.00E-03	2.6%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.62E-02	1.00E+00	1.00E-06	1.11E+04	1.80E-04	5.00E-03	3.6%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.34E-02	1.00E+00	1.00E-06	1.11E+04	1.50E-04	5.00E-03	3.0%
Typical	Ground	Not applicable	Low Boom	N.American - adult	3.68E-03	1.00E+00	1.00E-06	1.11E+04	4.10E-05	5.00E-03	0.82%
Typical	Ground	Not applicable	High Boom	N.American - adult	5.91E-03	1.00E+00	1.00E-06	1.11E+04	6.58E-05	5.00E-03	1.3%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.15E-02	1.00E+00	1.00E-06	1.11E+04	3.51E-04	5.00E-03	7.0%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.59E-02	1.00E+00	1.00E-06	1.11E+04	2.88E-04	5.00E-03	5.8%
Max	Ground	Not applicable	Low Boom	N.American - adult	7.36E-03	1.00E+00	1.00E-06	1.11E+04	8.20E-05	5.00E-03	1.6%
Max	Ground	Not applicable	High Boom	N.American - adult	1.18E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	5.00E-03	2.6%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	1.29E-03	4.00E+00	5.16E-03	5.00E-03	103%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.05E-03	4.00E+00	4.19E-03	5.00E-03	84%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.71E-04	4.00E+00	1.08E-03	5.00E-03	21.7%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	4.29E-04	4.00E+00	1.72E-03	5.00E-03	34.3%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	2.44E-03	4.00E+00	9.77E-03	5.00E-03	195%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.92E-03	4.00E+00	7.70E-03	5.00E-03	154%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	5.43E-04	4.00E+00	2.17E-03	5.00E-03	43%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	8.58E-04	4.00E+00	3.43E-03	5.00E-03	69%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	1.29E-03	4.03E+00	5.19E-03	5.00E-03	104%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.05E-03	4.03E+00	4.22E-03	5.00E-03	84%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.71E-04	4.03E+00	1.09E-03	5.00E-03	21.8%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	4.29E-04	4.03E+00	1.73E-03	5.00E-03	34.5%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	2.44E-03	4.03E+00	9.83E-03	5.00E-03	197%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.92E-03	4.03E+00	7.75E-03	5.00E-03	155%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	5.43E-04	4.03E+00	2.19E-03	5.00E-03	43.7%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	8.58E-04	4.03E+00	3.45E-03	5.00E-03	69%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	1.29E-03	4.00E+00	5.16E-03	5.00E-03	103%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.05E-03	4.00E+00	4.19E-03	5.00E-03	84%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.71E-04	4.00E+00	1.08E-03	5.00E-03	21.7%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	4.29E-04	4.00E+00	1.72E-03	5.00E-03	34.3%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	2.44E-03	4.00E+00	9.77E-03	5.00E-03	195%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.92E-03	4.00E+00	7.70E-03	5.00E-03	154%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	5.43E-04	4.00E+00	2.17E-03	5.00E-03	43%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	8.58E-04	4.00E+00	3.43E-03	5.00E-03	69%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	1.29E-03	4.03E+00	5.19E-03	5.00E-03	104%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.05E-03	4.03E+00	4.22E-03	5.00E-03	84%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.71E-04	4.03E+00	1.09E-03	5.00E-03	21.8%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	4.29E-04	4.03E+00	1.73E-03	5.00E-03	34.5%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	2.44E-03	4.03E+00	9.83E-03	5.00E-03	197%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.92E-03	4.03E+00	7.75E-03	5.00E-03	155%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	5.43E-04	4.03E+00	2.19E-03	5.00E-03	43.7%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	8.58E-04	4.03E+00	3.45E-03	5.00E-03	69%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	1.62E+03	2.31E+04	--	--	8.1%	--	--	1.35E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	2.00E+03	2.85E+04	--	--	6.8%	--	--	1.66E+00
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	7.72E+03	1.10E+05	--	--	1.9%	--	--	6.36E+00
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	4.88E+03	6.95E+04	--	--	3.0%	--	--	4.01E+00
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	**8.56E+02**	1.22E+04	--	--	16%	--	--	**7.10E-01**
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	1.09E+03	1.55E+04	--	--	13%	--	--	**8.97E-01**
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	3.85E+03	5.49E+04	--	--	3.7%	--	--	3.18E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	2.44E+03	3.47E+04	--	--	5.9%	--	--	2.01E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**6.23E+02**	7.69E+03	--	--	22%	103%	--	**3.35E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**7.67E+02**	9.47E+03	--	--	18%	84%	--	**4.12E-01**
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	2.96E+03	3.66E+04	--	--	4.9%	21.7%	--	1.59E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	1.87E+03	2.31E+04	--	--	7.9%	34.3%	--	1.00E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**3.29E+02**	4.06E+03	--	--	42%	195%	--	**1.77E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**4.18E+02**	5.15E+03	--	--	34%	154%	--	**2.24E-01**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	1.48E+03	1.83E+04	--	--	9.8%	43%	--	**7.91E-01**
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	**9.37E+02**	1.16E+04	--	--	16%	69%	--	**5.00E-01**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	1.62E+03	1.34E+04	--	--	8.1%	104%	--	**5.52E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	2.00E+03	1.66E+04	--	--	6.8%	84%	--	**6.80E-01**
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	7.72E+03	6.40E+04	--	--	1.9%	21.8%	--	2.62E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	4.88E+03	4.04E+04	--	--	3.0%	34.5%	--	1.65E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	**8.56E+02**	7.10E+03	--	--	16%	197%	--	**2.91E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	1.09E+03	9.01E+03	--	--	13%	155%	--	**3.69E-01**
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	3.85E+03	3.19E+04	--	--	3.7%	44%	--	1.31E+00
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	2.44E+03	2.02E+04	--	--	5.9%	69%	--	**8.27E-01**
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	1.62E+03	2.31E+04	--	--	8.1%	--	0.25%	1.34E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	2.00E+03	2.85E+04	--	--	6.8%	--	0.21%	1.65E+00
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	7.72E+03	1.10E+05	--	--	1.9%	--	0.06%	6.34E+00
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	4.88E+03	6.95E+04	--	--	3.0%	--	0.09%	4.00E+00
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	**8.56E+02**	1.22E+04	--	--	16%	--	0.48%	**7.08E-01**
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	1.09E+03	1.55E+04	--	--	13%	--	0.40%	**8.94E-01**
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	3.85E+03	5.49E+04	--	--	3.7%	--	0.11%	3.16E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	2.44E+03	3.47E+04	--	--	5.9%	--	0.18%	2.00E+00

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**6.23E+02**	1.96E+03	--	--	--	--	--	**4.72E-01**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**7.67E+02**	2.41E+03	--	--	--	--	--	**5.82E-01**
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	2.96E+03	9.32E+03	--	--	--	--	--	2.25E+00
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	1.87E+03	5.89E+03	--	--	--	--	--	1.42E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**3.29E+02**	1.03E+03	--	--	--	--	--	**2.50E-01**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**4.18E+02**	1.31E+03	--	--	--	--	--	**3.17E-01**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	1.48E+03	4.65E+03	--	--	--	--	--	1.12E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	**9.37E+02**	2.94E+03	--	--	--	--	--	**7.11E-01**
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	1.62E+03	3.42E+03	--	--	--	--	--	1.10E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	2.00E+03	4.22E+03	--	--	--	--	--	1.36E+00
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	7.72E+03	1.63E+04	--	--	--	--	--	5.24E+00
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	4.88E+03	1.03E+04	--	--	--	--	--	3.31E+00
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	**8.56E+02**	1.81E+03	--	--	--	--	--	**5.81E-01**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	1.09E+03	2.30E+03	--	--	--	--	--	**7.38E-01**
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	3.85E+03	8.13E+03	--	--	--	--	--	2.61E+00
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	2.44E+03	5.15E+03	--	--	--	--	--	1.65E+00
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**6.23E+02**	6.41E+03	2.76E+07	--	11%	103%	3.6%	**3.40E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**7.67E+02**	7.89E+03	3.33E+07	--	9.0%	84%	3.0%	**4.19E-01**
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	2.96E+03	3.05E+04	1.21E+08	--	2.5%	21.7%	0.82%	1.61E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	1.87E+03	1.93E+04	7.56E+07	--	3.9%	34.3%	1.3%	1.02E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**3.29E+02**	3.38E+03	1.42E+07	--	21%	195%	7.0%	**1.80E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**4.18E+02**	4.30E+03	1.73E+07	--	17%	154%	5.8%	**2.27E-01**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	1.48E+03	1.52E+04	6.07E+07	--	4.9%	43%	1.6%	**8.05E-01**
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	**9.37E+02**	9.63E+03	3.78E+07	--	7.9%	69%	2.6%	**5.09E-01**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	1.62E+03	1.12E+04	5.36E+07	--	4.1%	104%	3.6%	**5.49E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	2.00E+03	1.38E+04	6.46E+07	--	3.4%	84%	3.0%	**6.76E-01**
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	7.72E+03	5.33E+04	2.36E+08	--	0.9%	21.8%	0.82%	2.60E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	4.88E+03	3.37E+04	1.47E+08	--	1.5%	34.5%	1.3%	1.64E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	**8.56E+02**	5.92E+03	2.76E+07	--	7.9%	197%	7.0%	**2.90E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	1.09E+03	7.51E+03	3.36E+07	--	6.5%	155%	5.8%	**3.67E-01**
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	3.85E+03	2.66E+04	1.18E+08	--	1.9%	43.7%	1.6%	1.30E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	2.44E+03	1.68E+04	7.35E+07	--	3.0%	69%	2.6%	**8.22E-01**

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	7.18E+07	1.16E+05	--	--	--	1.16E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	8.65E+07	1.40E+05	--	--	--	1.39E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	3.16E+08	5.09E+05	--	--	--	5.09E+02
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.97E+08	3.17E+05	--	--	--	3.17E+02
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	3.69E+07	5.95E+04	--	--	--	5.94E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	4.49E+07	7.25E+04	--	--	--	7.24E+01
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	1.58E+08	2.55E+05	--	--	--	2.54E+02
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	9.83E+07	1.59E+05	--	--	--	1.58E+02
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.39E+08	1.04E+06	--	--	--	1.03E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.68E+08	1.25E+06	--	--	--	1.24E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	6.13E+08	4.56E+06	--	--	--	4.53E+03
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	3.82E+08	2.84E+06	--	--	--	2.82E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	7.17E+07	5.33E+05	--	--	--	5.29E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	8.73E+07	6.50E+05	--	--	--	6.45E+02
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	3.07E+08	2.28E+06	--	--	--	2.26E+03
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	1.91E+08	1.42E+06	--	--	--	1.41E+03

--Receptor not exposed via this pathway.
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Intermediate-term Exposure
Herbicide: **2,4-D Aquatic (Submerged/Volume of Water; Liquid)**
Programs: **Aquatic Sites**

	Typical Application Rate Scenario ARIs (a)				Maximum Application Rate Scenario ARIs (a)			
AgDrift Scenario:	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Not applicable**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	1.3	2	6	4	**0.7**	**0.9**	3	2
Berry Picker (Child)	**0.3**	**0.4**	2	1.001	**0.2**	**0.2**	**0.8**	**0.5**
Berry Picker (Adult)	**0.6**	**0.7**	3	2	**0.3**	**0.4**	1	**0.8**
Angler (Adult)	1.3	2	6	4	**0.7**	**0.9**	3	2
Residential (Child)	**0.5**	**0.6**	2	1.4	**0.2**	**0.3**	1.1	**0.7**
Residential (Adult)	1.1	1.4	5	3.3	**0.6**	**0.7**	2.6	1.7
Native American (Child)	**0.3**	**0.4**	2	1.02	**0.2**	**0.2**	**0.8**	**0.5**
Native American (Adult)	**0.5**	**0.7**	3	2	**0.3**	**0.4**	1	**0.8**
Swimmer (Child)	116	139	509	317	59	72	254	158
Swimmer (Adult)	1,030	1,241	4,529	2,820	529	645	2,265	1,410

ARI - Aggregate Risk Index. Values less than one represent a level of concern and are highlighted.
(a) - Application rates are shown on Table 4-1 and are the same for each program.
(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.
The Non-Forested land type is used to model pond concentrations. It is assumed that spray drift settles to an adjacent, non-target pond.
(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	1.29E-03	7.17E+01	9.25E-03	5.00E+00	**5.40E+02**
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	1.05E-03	7.17E+01	7.51E-03	5.00E+00	**6.66E+02**
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	2.71E-04	7.17E+01	1.94E-03	5.00E+00	2.57E+03
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	4.29E-04	7.17E+01	3.08E-03	5.00E+00	1.63E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	2.44E-03	7.17E+01	1.75E-02	5.00E+00	**2.85E+02**
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	1.92E-03	7.17E+01	1.38E-02	5.00E+00	**3.62E+02**
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	5.43E-04	7.17E+01	3.89E-03	5.00E+00	1.28E+03
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	8.58E-04	7.17E+01	6.15E-03	5.00E+00	**8.13E+02**
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	1.29E-03	1.87E+02	2.41E-02	5.00E+00	**2.08E+02**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	1.05E-03	1.87E+02	1.95E-02	5.00E+00	**2.56E+02**
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	2.71E-04	1.87E+02	5.06E-03	5.00E+00	**9.88E+02**
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	4.29E-04	1.87E+02	8.01E-03	5.00E+00	**6.24E+02**
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	2.44E-03	1.87E+02	4.56E-02	5.00E+00	**1.10E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	1.92E-03	1.87E+02	3.59E-02	5.00E+00	**1.39E+02**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	5.43E-04	1.87E+02	1.01E-02	5.00E+00	**4.93E+02**
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	8.58E-04	1.87E+02	1.60E-02	5.00E+00	**3.12E+02**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	1.29E-03	7.17E+01	9.25E-03	5.00E+00	**5.40E+02**
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	1.05E-03	7.17E+01	7.51E-03	5.00E+00	**6.66E+02**
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	2.71E-04	7.17E+01	1.94E-03	5.00E+00	2.57E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	4.29E-04	7.17E+01	3.08E-03	5.00E+00	1.63E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	2.44E-03	7.17E+01	1.75E-02	5.00E+00	**2.85E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	1.92E-03	7.17E+01	1.38E-02	5.00E+00	**3.62E+02**
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	5.43E-04	7.17E+01	3.89E-03	5.00E+00	1.28E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	8.58E-04	7.17E+01	6.15E-03	5.00E+00	**8.13E+02**
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	1.29E-03	7.17E+01	9.25E-03	5.00E+00	**5.40E+02**
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	1.05E-03	7.17E+01	7.51E-03	5.00E+00	**6.66E+02**
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	2.71E-04	7.17E+01	1.94E-03	5.00E+00	2.57E+03
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	4.29E-04	7.17E+01	3.08E-03	5.00E+00	1.63E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	2.44E-03	7.17E+01	1.75E-02	5.00E+00	**2.85E+02**
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	1.92E-03	7.17E+01	1.38E-02	5.00E+00	**3.62E+02**
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	5.43E-04	7.17E+01	3.89E-03	5.00E+00	1.28E+03
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	8.58E-04	7.17E+01	6.15E-03	5.00E+00	**8.13E+02**

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	1.29E-03	1.87E+02	2.41E-02	5.00E+00	**2.08E+02**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	1.05E-03	1.87E+02	1.95E-02	5.00E+00	**2.56E+02**
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	2.71E-04	1.87E+02	5.06E-03	5.00E+00	**9.88E+02**
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	4.29E-04	1.87E+02	8.01E-03	5.00E+00	**6.24E+02**
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	2.44E-03	1.87E+02	4.56E-02	5.00E+00	**1.10E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	1.92E-03	1.87E+02	3.59E-02	5.00E+00	**1.39E+02**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	5.43E-04	1.87E+02	1.01E-02	5.00E+00	**4.93E+02**
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	8.58E-04	1.87E+02	1.60E-02	5.00E+00	**3.12E+02**
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	1.29E-03	7.17E+01	9.25E-03	5.00E+00	**5.40E+02**
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	1.05E-03	7.17E+01	7.51E-03	5.00E+00	**6.66E+02**
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	2.71E-04	7.17E+01	1.94E-03	5.00E+00	2.57E+03
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	4.29E-04	7.17E+01	3.08E-03	5.00E+00	1.63E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	2.44E-03	7.17E+01	1.75E-02	5.00E+00	**2.85E+02**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	1.92E-03	7.17E+01	1.38E-02	5.00E+00	**3.62E+02**
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	5.43E-04	7.17E+01	3.89E-03	5.00E+00	1.28E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	8.58E-04	7.17E+01	6.15E-03	5.00E+00	**8.13E+02**
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	1.29E-03	1.87E+02	2.41E-02	5.00E+00	**2.08E+02**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	1.05E-03	1.87E+02	1.95E-02	5.00E+00	**2.56E+02**
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	2.71E-04	1.87E+02	5.06E-03	5.00E+00	**9.88E+02**
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	4.29E-04	1.87E+02	8.01E-03	5.00E+00	**6.24E+02**
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	2.44E-03	1.87E+02	4.56E-02	5.00E+00	**1.10E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	1.92E-03	1.87E+02	3.59E-02	5.00E+00	**1.39E+02**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	5.43E-04	1.87E+02	1.01E-02	5.00E+00	**4.93E+02**
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	8.58E-04	1.87E+02	1.60E-02	5.00E+00	**3.12E+02**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	1.29E-03	7.17E+01	9.25E-03	5.00E+00	**5.40E+02**
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	1.05E-03	7.17E+01	7.51E-03	5.00E+00	**6.66E+02**
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	2.71E-04	7.17E+01	1.94E-03	5.00E+00	2.57E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	4.29E-04	7.17E+01	3.08E-03	5.00E+00	1.63E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	2.44E-03	7.17E+01	1.75E-02	5.00E+00	**2.85E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	1.92E-03	7.17E+01	1.38E-02	5.00E+00	**3.62E+02**
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	5.43E-04	7.17E+01	3.89E-03	5.00E+00	1.28E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	8.58E-04	7.17E+01	6.15E-03	5.00E+00	**8.13E+02**

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	1.29E-03	3.23E-04	2.01E+01	6.49E-04	5.00E+00	7.70E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	1.05E-03	2.62E-04	2.01E+01	5.27E-04	5.00E+00	9.49E+03
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	2.71E-04	6.78E-05	2.01E+01	1.36E-04	5.00E+00	3.67E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	4.29E-04	1.07E-04	2.01E+01	2.16E-04	5.00E+00	2.32E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	2.44E-03	6.11E-04	2.01E+01	1.23E-03	5.00E+00	4.07E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	1.92E-03	4.81E-04	2.01E+01	9.68E-04	5.00E+00	5.16E+03
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.00E-01	5.43E-04	1.36E-04	2.01E+01	2.73E-04	5.00E+00	1.83E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.00E-01	8.58E-04	2.14E-04	2.01E+01	4.32E-04	5.00E+00	1.16E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	1.29E-03	3.23E-04	6.05E+01	1.95E-03	5.00E+00	2.56E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	1.05E-03	2.62E-04	6.05E+01	1.58E-03	5.00E+00	3.16E+03
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	2.71E-04	6.78E-05	6.05E+01	4.10E-04	5.00E+00	1.22E+04
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	4.29E-04	1.07E-04	6.05E+01	6.49E-04	5.00E+00	7.71E+03
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.00E-01	2.44E-03	6.11E-04	6.05E+01	3.69E-03	5.00E+00	1.35E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	1.92E-03	4.81E-04	6.05E+01	2.91E-03	5.00E+00	1.72E+03
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.00E-01	5.43E-04	1.36E-04	6.05E+01	8.22E-04	5.00E+00	6.09E+03
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.00E-01	8.58E-04	2.14E-04	6.05E+01	1.30E-03	5.00E+00	3.85E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	1.29E-03	3.23E-04	3.46E+01	1.12E-03	5.00E+00	4.48E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	1.05E-03	2.62E-04	3.46E+01	9.06E-04	5.00E+00	5.52E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	2.71E-04	6.78E-05	3.46E+01	2.34E-04	5.00E+00	2.13E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	4.29E-04	1.07E-04	3.46E+01	3.71E-04	5.00E+00	1.35E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.00E-01	2.44E-03	6.11E-04	3.46E+01	2.11E-03	5.00E+00	2.37E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.00E-01	1.92E-03	4.81E-04	3.46E+01	1.66E-03	5.00E+00	3.00E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.00E-01	5.43E-04	1.36E-04	3.46E+01	4.70E-04	5.00E+00	1.06E+04
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.00E-01	8.58E-04	2.14E-04	3.46E+01	7.42E-04	5.00E+00	6.74E+03
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	1.29E-03	3.23E-04	2.01E+01	6.49E-04	5.00E+00	7.70E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	1.05E-03	2.62E-04	2.01E+01	5.27E-04	5.00E+00	9.49E+03
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	2.71E-04	6.78E-05	2.01E+01	1.36E-04	5.00E+00	3.67E+04
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	4.29E-04	1.07E-04	2.01E+01	2.16E-04	5.00E+00	2.32E+04
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	2.44E-03	6.11E-04	2.01E+01	1.23E-03	5.00E+00	4.07E+03
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	1.92E-03	4.81E-04	2.01E+01	9.68E-04	5.00E+00	5.16E+03
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.00E-01	5.43E-04	1.36E-04	2.01E+01	2.73E-04	5.00E+00	1.83E+04
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.00E-01	8.58E-04	2.14E-04	2.01E+01	4.32E-04	5.00E+00	1.16E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	1.29E-03	1.29E-05	5.94E+03	7.66E-03	5.00E+00	**6.52E+02**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	1.05E-03	1.05E-05	5.94E+03	6.22E-03	5.00E+00	**8.04E+02**
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	2.71E-04	2.71E-06	5.94E+03	1.61E-03	5.00E+00	3.11E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	4.29E-04	4.29E-06	5.94E+03	2.55E-03	5.00E+00	1.96E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.00E-01	2.44E-03	2.44E-05	5.94E+03	1.45E-02	5.00E+00	**3.45E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.00E-01	1.92E-03	1.92E-05	5.94E+03	1.14E-02	5.00E+00	**4.37E+02**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.00E-01	5.43E-04	5.43E-06	5.94E+03	3.23E-03	5.00E+00	1.55E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.00E-01	8.58E-04	8.58E-06	5.94E+03	5.10E-03	5.00E+00	**9.81E+02**
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	1.29E-03	1.29E-05	3.40E+03	4.38E-03	5.00E+00	1.14E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	1.05E-03	1.05E-05	3.40E+03	3.56E-03	5.00E+00	1.41E+03
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	2.71E-04	2.71E-06	3.40E+03	9.21E-04	5.00E+00	5.43E+03
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	4.29E-04	4.29E-06	3.40E+03	1.46E-03	5.00E+00	3.43E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.00E-01	2.44E-03	2.44E-05	3.40E+03	8.30E-03	5.00E+00	**6.03E+02**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.00E-01	1.92E-03	1.92E-05	3.40E+03	6.53E-03	5.00E+00	**7.65E+02**
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.00E-01	5.43E-04	5.43E-06	3.40E+03	1.84E-03	5.00E+00	2.71E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.00E-01	8.58E-04	8.58E-06	3.40E+03	2.91E-03	5.00E+00	1.72E+03
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	1.29E-03	3.23E-04	7.26E+01	2.34E-03	5.00E+00	2.14E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	1.05E-03	2.62E-04	7.26E+01	1.90E-03	5.00E+00	2.63E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	2.71E-04	6.78E-05	7.26E+01	4.92E-04	5.00E+00	1.02E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	4.29E-04	1.07E-04	7.26E+01	7.79E-04	5.00E+00	6.42E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.00E-01	2.44E-03	6.11E-04	7.26E+01	4.43E-03	5.00E+00	1.13E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.00E-01	1.92E-03	4.81E-04	7.26E+01	3.49E-03	5.00E+00	1.43E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.00E-01	5.43E-04	1.36E-04	7.26E+01	9.86E-04	5.00E+00	5.07E+03
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.00E-01	8.58E-04	2.14E-04	7.26E+01	1.56E-03	5.00E+00	3.21E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	1.29E-03	3.23E-04	4.15E+01	1.34E-03	5.00E+00	3.73E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	1.05E-03	2.62E-04	4.15E+01	1.09E-03	5.00E+00	4.60E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	2.71E-04	6.78E-05	4.15E+01	2.81E-04	5.00E+00	1.78E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	4.29E-04	1.07E-04	4.15E+01	4.45E-04	5.00E+00	1.12E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.00E-01	2.44E-03	6.11E-04	4.15E+01	2.53E-03	5.00E+00	1.97E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.00E-01	1.92E-03	4.81E-04	4.15E+01	2.00E-03	5.00E+00	2.50E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.00E-01	5.43E-04	1.36E-04	4.15E+01	5.64E-04	5.00E+00	8.87E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.00E-01	8.58E-04	2.14E-04	4.15E+01	8.90E-04	5.00E+00	5.62E+03

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.62E-02	1.00E-03	4.40E+02	2.09E-07	1.50E+01	7.18E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	1.34E-02	1.00E-03	4.40E+02	1.73E-07	1.50E+01	8.65E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	3.68E-03	1.00E-03	4.40E+02	4.75E-08	1.50E+01	3.16E+08
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	5.91E-03	1.00E-03	4.40E+02	7.63E-08	1.50E+01	1.97E+08
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	3.15E-02	1.00E-03	4.40E+02	4.07E-07	1.50E+01	3.69E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	2.59E-02	1.00E-03	4.40E+02	3.34E-07	1.50E+01	4.49E+07
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	7.36E-03	1.00E-03	4.40E+02	9.50E-08	1.50E+01	1.58E+08
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	6.84E-05	1.00E-03	4.40E+02	8.83E-10	1.50E+01	1.70E+10
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.62E-02	1.00E-03	2.26E+02	1.08E-07	1.50E+01	1.39E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	1.34E-02	1.00E-03	2.26E+02	8.93E-08	1.50E+01	1.68E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	3.68E-03	1.00E-03	2.26E+02	2.45E-08	1.50E+01	6.13E+08
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	5.91E-03	1.00E-03	2.26E+02	3.93E-08	1.50E+01	3.82E+08
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	3.15E-02	1.00E-03	2.26E+02	2.09E-07	1.50E+01	7.17E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	2.59E-02	1.00E-03	2.26E+02	1.72E-07	1.50E+01	8.73E+07
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	7.36E-03	1.00E-03	2.26E+02	4.89E-08	1.50E+01	3.07E+08
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	6.84E-05	1.00E-03	2.26E+02	4.54E-10	1.50E+01	3.30E+10
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.62E-02	1.00E-03	1.14E+03	5.43E-07	1.50E+01	2.76E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	1.34E-02	1.00E-03	1.14E+03	4.51E-07	1.50E+01	3.33E+07
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	3.68E-03	1.00E-03	1.14E+03	1.24E-07	1.50E+01	1.21E+08
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	5.91E-03	1.00E-03	1.14E+03	1.98E-07	1.50E+01	7.56E+07
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	3.15E-02	1.00E-03	1.14E+03	1.06E-06	1.50E+01	1.42E+07
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	2.59E-02	1.00E-03	1.14E+03	8.68E-07	1.50E+01	1.73E+07
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	7.36E-03	1.00E-03	1.14E+03	2.47E-07	1.50E+01	6.07E+07
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	6.84E-05	1.00E-03	1.14E+03	2.30E-09	1.50E+01	6.53E+09
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.62E-02	1.00E-03	5.89E+02	2.80E-07	1.50E+01	5.36E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	1.34E-02	1.00E-03	5.89E+02	2.32E-07	1.50E+01	6.46E+07
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	3.68E-03	1.00E-03	5.89E+02	6.36E-08	1.50E+01	2.36E+08
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	5.91E-03	1.00E-03	5.89E+02	1.02E-07	1.50E+01	1.47E+08
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	3.15E-02	1.00E-03	5.89E+02	5.44E-07	1.50E+01	2.76E+07
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	2.59E-02	1.00E-03	5.89E+02	4.47E-07	1.50E+01	3.36E+07
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	7.36E-03	1.00E-03	5.89E+02	1.27E-07	1.50E+01	1.18E+08
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	6.84E-05	1.00E-03	5.89E+02	1.18E-09	1.50E+01	1.27E+10

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.62E-02	8.00E-03	1.30E-04	1.50E+01	1.16E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.34E-02	8.00E-03	1.08E-04	1.50E+01	1.40E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	3.68E-03	8.00E-03	2.94E-05	1.50E+01	5.09E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	5.91E-03	8.00E-03	4.73E-05	1.50E+01	3.17E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	3.15E-02	8.00E-03	2.52E-04	1.50E+01	5.95E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.59E-02	8.00E-03	2.07E-04	1.50E+01	7.25E+04
Max	Ground	Not applicable	Low Boom	Swimmer-child	7.36E-03	8.00E-03	5.89E-05	1.50E+01	2.55E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	6.84E-05	8.00E-03	5.47E-07	1.50E+01	2.74E+07
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.62E-02	8.93E-04	1.45E-05	1.50E+01	1.04E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.34E-02	8.93E-04	1.20E-05	1.50E+01	1.25E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	3.68E-03	8.93E-04	3.29E-06	1.50E+01	4.56E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	5.91E-03	8.93E-04	5.28E-06	1.50E+01	2.84E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	3.15E-02	8.93E-04	2.81E-05	1.50E+01	5.33E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.59E-02	8.93E-04	2.31E-05	1.50E+01	6.50E+05
Max	Ground	Not applicable	Low Boom	Swimmer-adult	7.36E-03	8.93E-04	6.58E-06	1.50E+01	2.28E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	6.84E-05	8.93E-04	6.11E-08	1.50E+01	2.46E+08

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.62E-02	2.52E-02	4.07E-04	5.00E-03	8.1%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.34E-02	2.52E-02	3.38E-04	5.00E-03	6.8%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	3.68E-03	2.52E-02	9.26E-05	5.00E-03	1.9%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	5.91E-03	2.52E-02	1.49E-04	5.00E-03	3.0%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	3.15E-02	2.52E-02	7.92E-04	5.00E-03	16%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.59E-02	2.52E-02	6.50E-04	5.00E-03	13%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	7.36E-03	2.52E-02	1.85E-04	5.00E-03	3.7%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	6.84E-05	2.52E-02	1.72E-06	5.00E-03	0.034%
Typical	Aerial	Non-Forested	Plane	Berry - child	1.62E-02	6.67E-02	1.08E-03	5.00E-03	22%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.34E-02	6.67E-02	8.96E-04	5.00E-03	18%
Typical	Ground	Not applicable	Low Boom	Berry - child	3.68E-03	6.67E-02	2.45E-04	5.00E-03	4.9%
Typical	Ground	Not applicable	High Boom	Berry - child	5.91E-03	6.67E-02	3.94E-04	5.00E-03	7.9%
Max	Aerial	Non-Forested	Plane	Berry - child	3.15E-02	6.67E-02	2.10E-03	5.00E-03	42%
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.59E-02	6.67E-02	1.72E-03	5.00E-03	34%
Max	Ground	Not applicable	Low Boom	Berry - child	7.36E-03	6.67E-02	4.91E-04	5.00E-03	9.8%
Max	Ground	Not applicable	High Boom	Berry - child	6.84E-05	6.67E-02	4.56E-06	5.00E-03	0.091%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.62E-02	2.52E-02	4.07E-04	5.00E-03	8.1%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.34E-02	2.52E-02	3.38E-04	5.00E-03	6.8%
Typical	Ground	Not applicable	Low Boom	Berry - adult	3.68E-03	2.52E-02	9.26E-05	5.00E-03	1.9%
Typical	Ground	Not applicable	High Boom	Berry - adult	5.91E-03	2.52E-02	1.49E-04	5.00E-03	3.0%
Max	Aerial	Non-Forested	Plane	Berry - adult	3.15E-02	2.52E-02	7.92E-04	5.00E-03	16%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.59E-02	2.52E-02	6.50E-04	5.00E-03	13%
Max	Ground	Not applicable	Low Boom	Berry - adult	7.36E-03	2.52E-02	1.85E-04	5.00E-03	3.7%
Max	Ground	Not applicable	High Boom	Berry - adult	6.84E-05	2.52E-02	1.72E-06	5.00E-03	0.034%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.62E-02	2.52E-02	4.07E-04	5.00E-03	8.1%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.34E-02	2.52E-02	3.38E-04	5.00E-03	6.8%
Typical	Ground	Not applicable	Low Boom	Angler	3.68E-03	2.52E-02	9.26E-05	5.00E-03	1.9%
Typical	Ground	Not applicable	High Boom	Angler	5.91E-03	2.52E-02	1.49E-04	5.00E-03	3.0%
Max	Aerial	Non-Forested	Plane	Angler	3.15E-02	2.52E-02	7.92E-04	5.00E-03	16%
Max	Aerial	Non-Forested	Helicopter	Angler	2.59E-02	2.52E-02	6.50E-04	5.00E-03	13%
Max	Ground	Not applicable	Low Boom	Angler	7.36E-03	2.52E-02	1.85E-04	5.00E-03	3.7%
Max	Ground	Not applicable	High Boom	Angler	6.84E-05	2.52E-02	1.72E-06	5.00E-03	0.034%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.62E-02	3.33E-02	5.40E-04	5.00E-03	11%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.34E-02	3.33E-02	4.48E-04	5.00E-03	9.0%
Typical	Ground	Not applicable	Low Boom	N.American - child	3.68E-03	3.33E-02	1.23E-04	5.00E-03	2.5%
Typical	Ground	Not applicable	High Boom	N.American - child	5.91E-03	3.33E-02	1.97E-04	5.00E-03	3.9%
Max	Aerial	Non-Forested	Plane	N.American - child	3.15E-02	3.33E-02	1.05E-03	5.00E-03	21%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.59E-02	3.33E-02	8.62E-04	5.00E-03	17%
Max	Ground	Not applicable	Low Boom	N.American - child	7.36E-03	3.33E-02	2.45E-04	5.00E-03	4.9%
Max	Ground	Not applicable	High Boom	N.American - child	6.84E-05	3.33E-02	2.28E-06	5.00E-03	0.046%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.62E-02	1.26E-02	2.04E-04	5.00E-03	4.1%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.34E-02	1.26E-02	1.69E-04	5.00E-03	3.4%
Typical	Ground	Not applicable	Low Boom	N.American - adult	3.68E-03	1.26E-02	4.63E-05	5.00E-03	0.9%
Typical	Ground	Not applicable	High Boom	N.American - adult	5.91E-03	1.26E-02	7.44E-05	5.00E-03	1.5%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.15E-02	1.26E-02	3.96E-04	5.00E-03	7.9%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.59E-02	1.26E-02	3.25E-04	5.00E-03	6.5%
Max	Ground	Not applicable	Low Boom	N.American - adult	7.36E-03	1.26E-02	9.26E-05	5.00E-03	1.9%
Max	Ground	Not applicable	High Boom	N.American - adult	6.84E-05	1.26E-02	8.60E-07	5.00E-03	0.017%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Fish
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.62E-02	1.00E+00	1.00E-06	7.67E+02	1.24E-05	5.00E-03	0.25%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.34E-02	1.00E+00	1.00E-06	7.67E+02	1.03E-05	5.00E-03	0.21%
Typical	Ground	Not applicable	Low Boom	Angler	3.68E-03	1.00E+00	1.00E-06	7.67E+02	2.82E-06	5.00E-03	0.056%
Typical	Ground	Not applicable	High Boom	Angler	5.91E-03	1.00E+00	1.00E-06	7.67E+02	4.54E-06	5.00E-03	0.09%
Max	Aerial	Non-Forested	Plane	Angler	3.15E-02	1.00E+00	1.00E-06	7.67E+02	2.42E-05	5.00E-03	0.48%
Max	Aerial	Non-Forested	Helicopter	Angler	2.59E-02	1.00E+00	1.00E-06	7.67E+02	1.98E-05	5.00E-03	0.40%
Max	Ground	Not applicable	Low Boom	Angler	7.36E-03	1.00E+00	1.00E-06	7.67E+02	5.65E-06	5.00E-03	0.11%
Max	Ground	Not applicable	High Boom	Angler	6.84E-05	1.00E+00	1.00E-06	7.67E+02	5.25E-08	5.00E-03	0.0010%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.62E-02	1.00E+00	1.00E-06	1.11E+04	1.80E-04	5.00E-03	3.6%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.34E-02	1.00E+00	1.00E-06	1.11E+04	1.50E-04	5.00E-03	3.0%
Typical	Ground	Not applicable	Low Boom	N.American - child	3.68E-03	1.00E+00	1.00E-06	1.11E+04	4.10E-05	5.00E-03	0.82%
Typical	Ground	Not applicable	High Boom	N.American - child	5.91E-03	1.00E+00	1.00E-06	1.11E+04	6.58E-05	5.00E-03	1.3%
Max	Aerial	Non-Forested	Plane	N.American - child	3.15E-02	1.00E+00	1.00E-06	1.11E+04	3.51E-04	5.00E-03	7.0%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.59E-02	1.00E+00	1.00E-06	1.11E+04	2.88E-04	5.00E-03	5.8%
Max	Ground	Not applicable	Low Boom	N.American - child	7.36E-03	1.00E+00	1.00E-06	1.11E+04	8.20E-05	5.00E-03	1.6%
Max	Ground	Not applicable	High Boom	N.American - child	6.84E-05	1.00E+00	1.00E-06	1.11E+04	7.62E-07	5.00E-03	0.015%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.62E-02	1.00E+00	1.00E-06	1.11E+04	1.80E-04	5.00E-03	3.6%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.34E-02	1.00E+00	1.00E-06	1.11E+04	1.50E-04	5.00E-03	3.0%
Typical	Ground	Not applicable	Low Boom	N.American - adult	3.68E-03	1.00E+00	1.00E-06	1.11E+04	4.10E-05	5.00E-03	0.82%
Typical	Ground	Not applicable	High Boom	N.American - adult	5.91E-03	1.00E+00	1.00E-06	1.11E+04	6.58E-05	5.00E-03	1.3%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.15E-02	1.00E+00	1.00E-06	1.11E+04	3.51E-04	5.00E-03	7.0%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.59E-02	1.00E+00	1.00E-06	1.11E+04	2.88E-04	5.00E-03	5.8%
Max	Ground	Not applicable	Low Boom	N.American - adult	7.36E-03	1.00E+00	1.00E-06	1.11E+04	8.20E-05	5.00E-03	1.6%
Max	Ground	Not applicable	High Boom	N.American - adult	6.84E-05	1.00E+00	1.00E-06	1.11E+04	7.61E-07	5.00E-03	0.015%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	1.29E-03	4.00E+00	5.16E-03	5.00E-03	103%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.05E-03	4.00E+00	4.19E-03	5.00E-03	84%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.71E-04	4.00E+00	1.08E-03	5.00E-03	21.7%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	4.29E-04	4.00E+00	1.72E-03	5.00E-03	34.3%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	2.44E-03	4.00E+00	9.77E-03	5.00E-03	195%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.92E-03	4.00E+00	7.70E-03	5.00E-03	154%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	5.43E-04	4.00E+00	2.17E-03	5.00E-03	43%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	8.58E-04	4.00E+00	3.43E-03	5.00E-03	69%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	1.29E-03	4.03E+00	5.19E-03	5.00E-03	104%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.05E-03	4.03E+00	4.22E-03	5.00E-03	84%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.71E-04	4.03E+00	1.09E-03	5.00E-03	21.8%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	4.29E-04	4.03E+00	1.73E-03	5.00E-03	34.5%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	2.44E-03	4.03E+00	9.83E-03	5.00E-03	197%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.92E-03	4.03E+00	7.75E-03	5.00E-03	155%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	5.43E-04	4.03E+00	2.19E-03	5.00E-03	43.7%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	8.58E-04	4.03E+00	3.45E-03	5.00E-03	69%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	1.29E-03	4.00E+00	5.16E-03	5.00E-03	103%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.05E-03	4.00E+00	4.19E-03	5.00E-03	84%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.71E-04	4.00E+00	1.08E-03	5.00E-03	21.7%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	4.29E-04	4.00E+00	1.72E-03	5.00E-03	34.3%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	2.44E-03	4.00E+00	9.77E-03	5.00E-03	195%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.92E-03	4.00E+00	7.70E-03	5.00E-03	154%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	5.43E-04	4.00E+00	2.17E-03	5.00E-03	43%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	8.58E-04	4.00E+00	3.43E-03	5.00E-03	69%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	1.29E-03	4.03E+00	5.19E-03	5.00E-03	104%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.05E-03	4.03E+00	4.22E-03	5.00E-03	84%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.71E-04	4.03E+00	1.09E-03	5.00E-03	21.8%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	4.29E-04	4.03E+00	1.73E-03	5.00E-03	34.5%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	2.44E-03	4.03E+00	9.83E-03	5.00E-03	197%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.92E-03	4.03E+00	7.75E-03	5.00E-03	155%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	5.43E-04	4.03E+00	2.19E-03	5.00E-03	43.7%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	8.58E-04	4.03E+00	3.45E-03	5.00E-03	69%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	**5.40E+02**	7.70E+03	--	--	8.1%	--	--	**4.85E-01**
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	**6.66E+02**	9.49E+03	--	--	6.8%	--	--	**5.97E-01**
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	2.57E+03	3.67E+04	--	--	1.9%	--	--	2.30E+00
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	1.63E+03	2.32E+04	--	--	3.0%	--	--	1.45E+00
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	**2.85E+02**	4.07E+03	--	--	16%	--	--	**2.56E-01**
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	**3.62E+02**	5.16E+03	--	--	13%	--	--	**3.24E-01**
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	1.28E+03	1.83E+04	--	--	3.7%	--	--	1.15E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	**8.13E+02**	1.16E+04	--	--	0.034%	--	--	**7.59E-01**
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**2.08E+02**	2.56E+03	--	--	22%	103%	--	**1.55E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**2.56E+02**	3.16E+03	--	--	18%	84%	--	**1.91E-01**
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	**9.88E+02**	1.22E+04	--	--	4.9%	21.7%	--	**7.35E-01**
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	**6.24E+02**	7.71E+03	--	--	7.9%	34.3%	--	**4.64E-01**
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**1.10E+02**	1.35E+03	--	--	42%	195%	--	**8.17E-02**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**1.39E+02**	1.72E+03	--	--	34%	154%	--	**1.04E-01**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	**4.93E+02**	6.09E+03	--	--	9.8%	43%	--	**3.67E-01**
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	**3.12E+02**	3.85E+03	--	--	0.091%	69%	--	**2.41E-01**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	**5.40E+02**	4.48E+03	--	--	8.1%	104%	--	**3.13E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	**6.66E+02**	5.52E+03	--	--	6.8%	84%	--	**3.86E-01**
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	2.57E+03	2.13E+04	--	--	1.9%	21.8%	--	1.49E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	1.63E+03	1.35E+04	--	--	3.0%	34.5%	--	**9.40E-01**
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	**2.85E+02**	2.37E+03	--	--	16%	197%	--	**1.65E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	**3.62E+02**	3.00E+03	--	--	13%	155%	--	**2.10E-01**
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	1.28E+03	1.06E+04	--	--	3.7%	44%	--	**7.42E-01**
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	**8.13E+02**	6.74E+03	--	--	0.034%	69%	--	**4.83E-01**
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	**5.40E+02**	7.70E+03	--	--	8.1%	--	0.25%	**4.85E-01**
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	**6.66E+02**	9.49E+03	--	--	6.8%	--	0.21%	**5.96E-01**
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	2.57E+03	3.67E+04	--	--	1.9%	--	0.06%	2.30E+00
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	1.63E+03	2.32E+04	--	--	3.0%	--	0.09%	1.45E+00
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	**2.85E+02**	4.07E+03	--	--	16%	--	0.48%	**2.56E-01**
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	**3.62E+02**	5.16E+03	--	--	13%	--	0.40%	**3.24E-01**
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	1.28E+03	1.83E+04	--	--	3.7%	--	0.11%	1.15E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	**8.13E+02**	1.16E+04	--	--	0.034%	--	0.0010%	**7.59E-01**

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**2.08E+02**	**6.52E+02**	--	--	--	--	--	**1.57E-01**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**2.56E+02**	**8.04E+02**	--	--	--	--	--	**1.94E-01**
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	**9.88E+02**	3.11E+03	--	--	--	--	--	**7.50E-01**
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	**6.24E+02**	1.96E+03	--	--	--	--	--	**4.74E-01**
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**1.10E+02**	**3.45E+02**	--	--	--	--	--	**8.32E-02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**1.39E+02**	**4.37E+02**	--	--	--	--	--	**1.06E-01**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	**4.93E+02**	1.55E+03	--	--	--	--	--	**3.74E-01**
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	**3.12E+02**	**9.81E+02**	--	--	--	--	--	**2.37E-01**
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	**5.40E+02**	1.14E+03	--	--	--	--	--	**3.67E-01**
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	**6.66E+02**	1.41E+03	--	--	--	--	--	**4.52E-01**
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	2.57E+03	5.43E+03	--	--	--	--	--	1.75E+00
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	1.63E+03	3.43E+03	--	--	--	--	--	1.10E+00
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	**2.85E+02**	**6.03E+02**	--	--	--	--	--	**1.94E-01**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	**3.62E+02**	**7.65E+02**	--	--	--	--	--	**2.46E-01**
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	1.28E+03	2.71E+03	--	--	--	--	--	**8.71E-01**
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	**8.13E+02**	1.72E+03	--	--	--	--	--	**5.52E-01**
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**2.08E+02**	2.14E+03	2.76E+07	--	11%	103%	3.6%	**1.55E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**2.56E+02**	2.63E+03	3.33E+07	--	9.0%	84%	3.0%	**1.91E-01**
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	**9.88E+02**	1.02E+04	1.21E+08	--	2.5%	21.7%	0.82%	**7.35E-01**
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	**6.24E+02**	6.42E+03	7.56E+07	--	3.9%	34.3%	1.3%	**4.64E-01**
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**1.10E+02**	1.13E+03	1.42E+07	--	21%	195%	7.0%	**8.17E-02**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**1.39E+02**	1.43E+03	1.73E+07	--	17%	154%	5.8%	**1.04E-01**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	**4.93E+02**	5.07E+03	6.07E+07	--	4.9%	43%	1.6%	**3.67E-01**
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	**3.12E+02**	3.21E+03	6.53E+09	--	0.046%	69%	0.015%	**2.38E-01**
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	**5.40E+02**	3.73E+03	5.36E+07	--	4.1%	104%	3.6%	**3.09E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	**6.66E+02**	4.60E+03	6.46E+07	--	3.4%	84%	3.0%	**3.81E-01**
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	2.57E+03	1.78E+04	2.36E+08	--	0.9%	21.8%	0.82%	1.47E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	1.63E+03	1.12E+04	1.47E+08	--	1.5%	34.5%	1.3%	**9.28E-01**
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	**2.85E+02**	1.97E+03	2.76E+07	--	7.9%	197%	7.0%	**1.63E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	**3.62E+02**	2.50E+03	3.36E+07	--	6.5%	155%	5.8%	**2.07E-01**
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	1.28E+03	8.87E+03	1.18E+08	--	1.9%	43.7%	1.6%	**7.33E-01**
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	**8.13E+02**	5.62E+03	1.27E+10	--	0.017%	69%	0.015%	**4.76E-01**

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	7.18E+07	1.16E+05	--	--	--	1.16E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	8.65E+07	1.40E+05	--	--	--	1.39E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	3.16E+08	5.09E+05	--	--	--	5.09E+02
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.97E+08	3.17E+05	--	--	--	3.17E+02
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	3.69E+07	5.95E+04	--	--	--	5.94E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	4.49E+07	7.25E+04	--	--	--	7.24E+01
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	1.58E+08	2.55E+05	--	--	--	2.54E+02
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.70E+10	2.74E+07	--	--	--	2.74E+04
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.39E+08	1.04E+06	--	--	--	1.03E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.68E+08	1.25E+06	--	--	--	1.24E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	6.13E+08	4.56E+06	--	--	--	4.53E+03
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	3.82E+08	2.84E+06	--	--	--	2.82E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	7.17E+07	5.33E+05	--	--	--	5.29E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	8.73E+07	6.50E+05	--	--	--	6.45E+02
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	3.07E+08	2.28E+06	--	--	--	2.26E+03
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	3.30E+10	2.46E+08	--	--	--	2.44E+05

--Receptor not exposed via this pathway.
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 1000 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Long-term Exposure
Herbicide: **2,4-D Aquatic (Submerged/Volume of Water; Liquid)**
Programs: **Aquatic Sites**

	Typical Application Rate Scenario ARIs (a)				Maximum Application Rate Scenario ARIs (a)			
AgDrift Scenario:	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Not applicable**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	**0.5**	**0.6**	2	1.5	**0.3**	**0.3**	1.1	**0.8**
Berry Picker (Child)	**0.2**	**0.2**	**0.7**	**0.5**	**0.1**	**0.1**	**0.4**	**0.2**
Berry Picker (Adult)	**0.3**	**0.4**	1	**0.9**	**0.2**	**0.2**	**0.7**	**0.5**
Angler (Adult)	**0.5**	**0.6**	2	1.5	**0.3**	**0.3**	1.1	**0.8**
Residential (Child)	**0.2**	**0.2**	**0.7**	**0.5**	**0.1**	**0.1**	**0.4**	**0.2**
Residential (Adult)	**0.4**	**0.5**	2	1.1	**0.2**	**0.2**	**0.9**	**0.6**
Native American (Child)	**0.2**	**0.2**	**0.7**	**0.5**	**0.1**	**0.1**	**0.4**	**0.2**
Native American (Adult)	**0.3**	**0.4**	1	**0.9**	**0.2**	**0.2**	**0.7**	**0.5**
Swimmer (Child)	116	139	509	317	59	72	254	27,368
Swimmer (Adult)	1,030	1,241	4,529	2,820	529	645	2,265	243,740

ARI - Aggregate Risk Index. Values less than one represent a level of concern and are highlighted.
(a) - Application rates are shown on Table 4-1 and are the same for each program.
(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.
The Non-Forested land type is used to model pond concentrations. It is assumed that spray drift settles to an adjacent, non-target pond.
(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	NA	8.96E-06	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	NA	2.80E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	NA	7.84E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	NA	4.48E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	NA	3.36E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	NA	6.72E-06	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	NA	5.04E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	NA	4.14E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	NA	1.11E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	NA	8.96E-06	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	NA	8.96E-06	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	NA	8.96E-06	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	NA	2.80E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	NA	7.84E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	NA	4.48E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	NA	3.36E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	NA	6.72E-06	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	NA	5.04E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	NA	4.14E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	NA	1.11E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	NA	8.96E-06	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	NA	8.96E-06	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	NA	2.80E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	NA	7.84E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	NA	4.48E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	NA	3.36E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	NA	6.72E-06	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	NA	5.04E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	NA	4.14E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	NA	1.11E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	NA	8.96E-06	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	NA	8.96E-06	7.17E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	3.36E-05	8.40E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	2.80E-05	7.00E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	7.84E-05	1.96E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	4.48E-06	1.12E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	3.36E-06	8.40E-07	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	6.72E-06	1.68E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	5.04E-05	1.26E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	4.14E-05	1.04E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	1.11E-04	2.77E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	8.96E-06	2.24E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	3.36E-05	8.40E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	2.80E-05	7.00E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	7.84E-05	1.96E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	4.48E-06	1.12E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	3.36E-06	8.40E-07	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	6.72E-06	1.68E-06	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	5.04E-05	1.26E-05	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	4.14E-05	1.04E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	1.11E-04	2.77E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	5.60E-06	1.40E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	5.60E-06	1.40E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	8.96E-06	2.24E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	3.36E-05	8.40E-06	3.46E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	2.80E-05	7.00E-06	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	7.84E-05	1.96E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	4.48E-06	1.12E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	3.36E-06	8.40E-07	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	6.72E-06	1.68E-06	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	5.04E-05	1.26E-05	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	4.14E-05	1.04E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	1.11E-04	2.77E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	5.60E-06	1.40E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	5.60E-06	1.40E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	8.96E-06	2.24E-06	3.46E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	3.36E-05	8.40E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	2.80E-05	7.00E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	2.50E-01	NA	7.84E-05	1.96E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	4.48E-06	1.12E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	3.36E-06	8.40E-07	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	6.72E-06	1.68E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	5.04E-05	1.26E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	4.14E-05	1.04E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	2.50E-01	NA	1.11E-04	2.77E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	8.96E-06	2.24E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	3.36E-05	3.36E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	2.80E-05	2.80E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	NA	7.84E-05	7.84E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	4.48E-06	4.48E-08	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	3.36E-06	3.36E-08	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	6.72E-06	6.72E-08	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	5.04E-05	5.04E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	4.14E-05	4.14E-07	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	1.00E-02	NA	1.11E-04	1.11E-06	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	5.60E-06	5.60E-08	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	5.60E-06	5.60E-08	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	8.96E-06	8.96E-08	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	3.36E-05	3.36E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	2.80E-05	2.80E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	7.84E-05	7.84E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	4.48E-06	4.48E-08	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	3.36E-06	3.36E-08	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	6.72E-06	6.72E-08	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	5.04E-05	5.04E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	4.14E-05	4.14E-07	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	1.11E-04	1.11E-06	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	5.60E-06	5.60E-08	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	5.60E-06	5.60E-08	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	8.96E-06	8.96E-08	3.40E+03	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	3.36E-05	8.40E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	2.80E-05	7.00E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	7.84E-05	1.96E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	4.48E-06	1.12E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	3.36E-06	8.40E-07	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	6.72E-06	1.68E-06	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	5.04E-05	1.26E-05	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	4.14E-05	1.04E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	1.11E-04	2.77E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	5.60E-06	1.40E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	5.60E-06	1.40E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	8.96E-06	2.24E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	3.36E-05	8.40E-06	4.15E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	2.80E-05	7.00E-06	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	7.84E-05	1.96E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	4.48E-06	1.12E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	3.36E-06	8.40E-07	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	6.72E-06	1.68E-06	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	5.04E-05	1.26E-05	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	4.14E-05	1.04E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	1.11E-04	2.77E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	5.60E-06	1.40E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	5.60E-06	1.40E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	8.96E-06	2.24E-06	4.15E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.40E-06	6.39E-02	1.00E-03	4.40E+02	3.94E-08	1.04E+02	2.64E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.40E-06	6.39E-02	1.00E-03	4.40E+02	3.94E-08	1.04E+02	2.64E+09
Typical	Aerial	Forested	Plane	Swimmer-child	1.40E-06	6.45E-02	1.00E-03	4.40E+02	3.97E-08	1.04E+02	2.62E+09
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.40E-06	6.35E-02	1.00E-03	4.40E+02	3.92E-08	1.04E+02	2.65E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.40E-06	6.35E-02	1.00E-03	4.40E+02	3.92E-08	1.04E+02	2.65E+09
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.40E-06	6.36E-02	1.00E-03	4.40E+02	3.92E-08	1.04E+02	2.65E+09
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.40E-06	9.02E-02	1.00E-03	4.40E+02	5.56E-08	1.04E+02	1.87E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.40E-06	9.01E-02	1.00E-03	4.40E+02	5.55E-08	1.04E+02	1.87E+09
Max	Aerial	Forested	Plane	Swimmer-child	1.40E-06	9.09E-02	1.00E-03	4.40E+02	5.61E-08	1.04E+02	1.86E+09
Max	Aerial	Forested	Helicopter	Swimmer-child	1.40E-06	8.96E-02	1.00E-03	4.40E+02	5.53E-08	1.04E+02	1.88E+09
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.40E-06	8.96E-02	1.00E-03	4.40E+02	5.52E-08	1.04E+02	1.88E+09
Max	Ground	Not applicable	High Boom	Swimmer-child	1.40E-06	8.97E-02	1.00E-03	4.40E+02	5.53E-08	1.04E+02	1.88E+09
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.40E-06	6.39E-02	1.00E-03	2.26E+02	2.03E-08	1.04E+02	5.13E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.40E-06	6.39E-02	1.00E-03	2.26E+02	2.03E-08	1.04E+02	5.13E+09
Typical	Aerial	Forested	Plane	Swimmer-adult	1.40E-06	6.45E-02	1.00E-03	2.26E+02	2.05E-08	1.04E+02	5.08E+09
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.40E-06	6.35E-02	1.00E-03	2.26E+02	2.02E-08	1.04E+02	5.16E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.40E-06	6.35E-02	1.00E-03	2.26E+02	2.02E-08	1.04E+02	5.16E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.40E-06	6.36E-02	1.00E-03	2.26E+02	2.02E-08	1.04E+02	5.16E+09
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.40E-06	9.02E-02	1.00E-03	2.26E+02	2.86E-08	1.04E+02	3.64E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.40E-06	9.01E-02	1.00E-03	2.26E+02	2.86E-08	1.04E+02	3.64E+09
Max	Aerial	Forested	Plane	Swimmer-adult	1.40E-06	9.09E-02	1.00E-03	2.26E+02	2.88E-08	1.04E+02	3.61E+09
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.40E-06	8.96E-02	1.00E-03	2.26E+02	2.84E-08	1.04E+02	3.66E+09
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.40E-06	8.96E-02	1.00E-03	2.26E+02	2.84E-08	1.04E+02	3.66E+09
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.40E-06	8.97E-02	1.00E-03	2.26E+02	2.84E-08	1.04E+02	3.66E+09
Typical	Aerial	Non-Forested	Plane	N.American-child	1.40E-06	6.39E-02	1.00E-03	1.14E+03	1.02E-07	1.04E+02	1.02E+09
Typical	Aerial	Non-Forested	Helicopter	N.American-child	1.40E-06	6.39E-02	1.00E-03	1.14E+03	1.02E-07	1.04E+02	1.02E+09
Typical	Aerial	Forested	Plane	N.American-child	1.40E-06	6.45E-02	1.00E-03	1.14E+03	1.03E-07	1.04E+02	1.01E+09
Typical	Aerial	Forested	Helicopter	N.American-child	1.40E-06	6.35E-02	1.00E-03	1.14E+03	1.02E-07	1.04E+02	1.02E+09
Typical	Ground	Not applicable	Low Boom	N.American-child	1.40E-06	6.35E-02	1.00E-03	1.14E+03	1.02E-07	1.04E+02	1.02E+09
Typical	Ground	Not applicable	High Boom	N.American-child	1.40E-06	6.36E-02	1.00E-03	1.14E+03	1.02E-07	1.04E+02	1.02E+09
Max	Aerial	Non-Forested	Plane	N.American-child	1.40E-06	9.02E-02	1.00E-03	1.14E+03	1.45E-07	1.04E+02	7.19E+08
Max	Aerial	Non-Forested	Helicopter	N.American-child	1.40E-06	9.01E-02	1.00E-03	1.14E+03	1.44E-07	1.04E+02	7.20E+08
Max	Aerial	Forested	Plane	N.American-child	1.40E-06	9.09E-02	1.00E-03	1.14E+03	1.46E-07	1.04E+02	7.14E+08
Max	Aerial	Forested	Helicopter	N.American-child	1.40E-06	8.96E-02	1.00E-03	1.14E+03	1.44E-07	1.04E+02	7.24E+08
Max	Ground	Not applicable	Low Boom	N.American-child	1.40E-06	8.96E-02	1.00E-03	1.14E+03	1.44E-07	1.04E+02	7.24E+08
Max	Ground	Not applicable	High Boom	N.American-child	1.40E-06	8.97E-02	1.00E-03	1.14E+03	1.44E-07	1.04E+02	7.24E+08

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	1.40E-06	6.39E-02	1.00E-03	5.89E+02	5.27E-08	1.04E+02	1.97E+09
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	1.40E-06	6.39E-02	1.00E-03	5.89E+02	5.27E-08	1.04E+02	1.97E+09
Typical	Aerial	Forested	Plane	N.American-adult	1.40E-06	6.45E-02	1.00E-03	5.89E+02	5.32E-08	1.04E+02	1.96E+09
Typical	Aerial	Forested	Helicopter	N.American-adult	1.40E-06	6.35E-02	1.00E-03	5.89E+02	5.24E-08	1.04E+02	1.98E+09
Typical	Ground	Not applicable	Low Boom	N.American-adult	1.40E-06	6.35E-02	1.00E-03	5.89E+02	5.24E-08	1.04E+02	1.98E+09
Typical	Ground	Not applicable	High Boom	N.American-adult	1.40E-06	6.36E-02	1.00E-03	5.89E+02	5.24E-08	1.04E+02	1.98E+09
Max	Aerial	Non-Forested	Plane	N.American-adult	1.40E-06	9.02E-02	1.00E-03	5.89E+02	7.44E-08	1.04E+02	1.40E+09
Max	Aerial	Non-Forested	Helicopter	N.American-adult	1.40E-06	9.01E-02	1.00E-03	5.89E+02	7.43E-08	1.04E+02	1.40E+09
Max	Aerial	Forested	Plane	N.American-adult	1.40E-06	9.09E-02	1.00E-03	5.89E+02	7.50E-08	1.04E+02	1.39E+09
Max	Aerial	Forested	Helicopter	N.American-adult	1.40E-06	8.96E-02	1.00E-03	5.89E+02	7.39E-08	1.04E+02	1.41E+09
Max	Ground	Not applicable	Low Boom	N.American-adult	1.40E-06	8.96E-02	1.00E-03	5.89E+02	7.39E-08	1.04E+02	1.41E+09
Max	Ground	Not applicable	High Boom	N.American-adult	1.40E-06	8.97E-02	1.00E-03	5.89E+02	7.40E-08	1.04E+02	1.41E+09

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	6.39E-02	8.00E-03	5.11E-04	1.04E+02	2.03E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	6.39E-02	8.00E-03	5.11E-04	1.04E+02	2.04E+05
Typical	Aerial	Forested	Plane	Swimmer-child	6.45E-02	8.00E-03	5.16E-04	1.04E+02	2.02E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	6.35E-02	8.00E-03	5.08E-04	1.04E+02	2.05E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	6.35E-02	8.00E-03	5.08E-04	1.04E+02	2.05E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	6.36E-02	8.00E-03	5.09E-04	1.04E+02	2.04E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	9.02E-02	8.00E-03	7.21E-04	1.04E+02	1.44E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	9.01E-02	8.00E-03	7.21E-04	1.04E+02	1.44E+05
Max	Aerial	Forested	Plane	Swimmer-child	9.09E-02	8.00E-03	7.27E-04	1.04E+02	1.43E+05
Max	Aerial	Forested	Helicopter	Swimmer-child	8.96E-02	8.00E-03	7.17E-04	1.04E+02	1.45E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	8.96E-02	8.00E-03	7.17E-04	1.04E+02	1.45E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	8.97E-02	8.00E-03	7.17E-04	1.04E+02	1.45E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	6.39E-02	8.93E-04	5.71E-05	1.04E+02	1.82E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	6.39E-02	8.93E-04	5.70E-05	1.04E+02	1.82E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	6.45E-02	8.93E-04	5.76E-05	1.04E+02	1.81E+06
Typical	Aerial	Forested	Helicopter	Swimmer-adult	6.35E-02	8.93E-04	5.68E-05	1.04E+02	1.83E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	6.35E-02	8.93E-04	5.68E-05	1.04E+02	1.83E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	6.36E-02	8.93E-04	5.68E-05	1.04E+02	1.83E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	9.02E-02	8.93E-04	8.05E-05	1.04E+02	1.29E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	9.01E-02	8.93E-04	8.04E-05	1.04E+02	1.29E+06
Max	Aerial	Forested	Plane	Swimmer-adult	9.09E-02	8.93E-04	8.12E-05	1.04E+02	1.28E+06
Max	Aerial	Forested	Helicopter	Swimmer-adult	8.96E-02	8.93E-04	8.00E-05	1.04E+02	1.30E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	8.96E-02	8.93E-04	8.00E-05	1.04E+02	1.30E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	8.97E-02	8.93E-04	8.01E-05	1.04E+02	1.30E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	6.39E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	6.39E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Typical	Aerial	Forested	Plane	Hiker/Hunter	6.45E-02	2.52E-02	1.62E-03	5.00E-01	0.32%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	6.36E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	9.02E-02	2.52E-02	2.27E-03	5.00E-01	0.45%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	9.01E-02	2.52E-02	2.27E-03	5.00E-01	0.45%
Max	Aerial	Forested	Plane	Hiker/Hunter	9.09E-02	2.52E-02	2.29E-03	5.00E-01	0.46%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	8.96E-02	2.52E-02	2.25E-03	5.00E-01	0.45%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	8.96E-02	2.52E-02	2.25E-03	5.00E-01	0.45%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	8.97E-02	2.52E-02	2.26E-03	5.00E-01	0.45%
Typical	Aerial	Non-Forested	Plane	Berry - child	6.39E-02	6.67E-02	4.26E-03	5.00E-01	0.85%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	6.39E-02	6.67E-02	4.26E-03	5.00E-01	0.85%
Typical	Aerial	Forested	Plane	Berry - child	6.45E-02	6.67E-02	4.30E-03	5.00E-01	0.86%
Typical	Aerial	Forested	Helicopter	Berry - child	6.35E-02	6.67E-02	4.24E-03	5.00E-01	0.85%
Typical	Ground	Not applicable	Low Boom	Berry - child	6.35E-02	6.67E-02	4.24E-03	5.00E-01	0.85%
Typical	Ground	Not applicable	High Boom	Berry - child	6.36E-02	6.67E-02	4.24E-03	5.00E-01	0.85%
Max	Aerial	Non-Forested	Plane	Berry - child	9.02E-02	6.67E-02	6.01E-03	5.00E-01	1.2%
Max	Aerial	Non-Forested	Helicopter	Berry - child	9.01E-02	6.67E-02	6.00E-03	5.00E-01	1.2%
Max	Aerial	Forested	Plane	Berry - child	9.09E-02	6.67E-02	6.06E-03	5.00E-01	1.2%
Max	Aerial	Forested	Helicopter	Berry - child	8.96E-02	6.67E-02	5.97E-03	5.00E-01	1.2%
Max	Ground	Not applicable	Low Boom	Berry - child	8.96E-02	6.67E-02	5.97E-03	5.00E-01	1.2%
Max	Ground	Not applicable	High Boom	Berry - child	8.97E-02	6.67E-02	5.98E-03	5.00E-01	1.2%
Typical	Aerial	Non-Forested	Plane	Berry - adult	6.39E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	6.39E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Typical	Aerial	Forested	Plane	Berry - adult	6.45E-02	2.52E-02	1.62E-03	5.00E-01	0.32%
Typical	Aerial	Forested	Helicopter	Berry - adult	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Typical	Ground	Not applicable	Low Boom	Berry - adult	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Typical	Ground	Not applicable	High Boom	Berry - adult	6.36E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Max	Aerial	Non-Forested	Plane	Berry - adult	9.02E-02	2.52E-02	2.27E-03	5.00E-01	0.45%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	9.01E-02	2.52E-02	2.27E-03	5.00E-01	0.45%
Max	Aerial	Forested	Plane	Berry - adult	9.09E-02	2.52E-02	2.29E-03	5.00E-01	0.46%
Max	Aerial	Forested	Helicopter	Berry - adult	8.96E-02	2.52E-02	2.25E-03	5.00E-01	0.45%
Max	Ground	Not applicable	Low Boom	Berry - adult	8.96E-02	2.52E-02	2.25E-03	5.00E-01	0.45%
Max	Ground	Not applicable	High Boom	Berry - adult	8.97E-02	2.52E-02	2.26E-03	5.00E-01	0.45%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	6.39E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Typical	Aerial	Non-Forested	Helicopter	Angler	6.39E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Typical	Aerial	Forested	Plane	Angler	6.45E-02	2.52E-02	1.62E-03	5.00E-01	0.32%
Typical	Aerial	Forested	Helicopter	Angler	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Typical	Ground	Not applicable	Low Boom	Angler	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Typical	Ground	Not applicable	High Boom	Angler	6.36E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Max	Aerial	Non-Forested	Plane	Angler	9.02E-02	2.52E-02	2.27E-03	5.00E-01	0.45%
Max	Aerial	Non-Forested	Helicopter	Angler	9.01E-02	2.52E-02	2.27E-03	5.00E-01	0.45%
Max	Aerial	Forested	Plane	Angler	9.09E-02	2.52E-02	2.29E-03	5.00E-01	0.46%
Max	Aerial	Forested	Helicopter	Angler	8.96E-02	2.52E-02	2.25E-03	5.00E-01	0.45%
Max	Ground	Not applicable	Low Boom	Angler	8.96E-02	2.52E-02	2.25E-03	5.00E-01	0.45%
Max	Ground	Not applicable	High Boom	Angler	8.97E-02	2.52E-02	2.26E-03	5.00E-01	0.45%
Typical	Aerial	Non-Forested	Plane	N.American - child	6.39E-02	3.33E-02	2.13E-03	5.00E-01	0.43%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	6.39E-02	3.33E-02	2.13E-03	5.00E-01	0.43%
Typical	Aerial	Forested	Plane	N.American - child	6.45E-02	3.33E-02	2.15E-03	5.00E-01	0.43%
Typical	Aerial	Forested	Helicopter	N.American - child	6.35E-02	3.33E-02	2.12E-03	5.00E-01	0.42%
Typical	Ground	Not applicable	Low Boom	N.American - child	6.35E-02	3.33E-02	2.12E-03	5.00E-01	0.42%
Typical	Ground	Not applicable	High Boom	N.American - child	6.36E-02	3.33E-02	2.12E-03	5.00E-01	0.42%
Max	Aerial	Non-Forested	Plane	N.American - child	9.02E-02	3.33E-02	3.01E-03	5.00E-01	0.60%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.01E-02	3.33E-02	3.00E-03	5.00E-01	0.60%
Max	Aerial	Forested	Plane	N.American - child	9.09E-02	3.33E-02	3.03E-03	5.00E-01	0.61%
Max	Aerial	Forested	Helicopter	N.American - child	8.96E-02	3.33E-02	2.99E-03	5.00E-01	0.60%
Max	Ground	Not applicable	Low Boom	N.American - child	8.96E-02	3.33E-02	2.99E-03	5.00E-01	0.60%
Max	Ground	Not applicable	High Boom	N.American - child	8.97E-02	3.33E-02	2.99E-03	5.00E-01	0.60%
Typical	Aerial	Non-Forested	Plane	N.American - adult	6.39E-02	1.26E-02	8.04E-04	5.00E-01	0.16%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	6.39E-02	1.26E-02	8.03E-04	5.00E-01	0.16%
Typical	Aerial	Forested	Plane	N.American - adult	6.45E-02	1.26E-02	8.11E-04	5.00E-01	0.16%
Typical	Aerial	Forested	Helicopter	N.American - adult	6.35E-02	1.26E-02	7.99E-04	5.00E-01	0.16%
Typical	Ground	Not applicable	Low Boom	N.American - adult	6.35E-02	1.26E-02	7.99E-04	5.00E-01	0.16%
Typical	Ground	Not applicable	High Boom	N.American - adult	6.36E-02	1.26E-02	8.00E-04	5.00E-01	0.16%
Max	Aerial	Non-Forested	Plane	N.American - adult	9.02E-02	1.26E-02	1.13E-03	5.00E-01	0.23%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.01E-02	1.26E-02	1.13E-03	5.00E-01	0.23%
Max	Aerial	Forested	Plane	N.American - adult	9.09E-02	1.26E-02	1.14E-03	5.00E-01	0.23%
Max	Aerial	Forested	Helicopter	N.American - adult	8.96E-02	1.26E-02	1.13E-03	5.00E-01	0.23%
Max	Ground	Not applicable	Low Boom	N.American - adult	8.96E-02	1.26E-02	1.13E-03	5.00E-01	0.23%
Max	Ground	Not applicable	High Boom	N.American - adult	8.97E-02	1.26E-02	1.13E-03	5.00E-01	0.23%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Fish
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	6.39E-02	1.00E+00	1.00E-06	7.67E+02	4.90E-05	5.00E-01	0.010%
Typical	Aerial	Non-Forested	Helicopter	Angler	6.39E-02	1.00E+00	1.00E-06	7.67E+02	4.90E-05	5.00E-01	0.010%
Typical	Aerial	Forested	Plane	Angler	6.45E-02	1.00E+00	1.00E-06	7.67E+02	4.95E-05	5.00E-01	0.010%
Typical	Aerial	Forested	Helicopter	Angler	6.35E-02	1.00E+00	1.00E-06	7.67E+02	4.88E-05	5.00E-01	0.010%
Typical	Ground	Not applicable	Low Boom	Angler	6.35E-02	1.00E+00	1.00E-06	7.67E+02	4.88E-05	5.00E-01	0.010%
Typical	Ground	Not applicable	High Boom	Angler	6.36E-02	1.00E+00	1.00E-06	7.67E+02	4.88E-05	5.00E-01	0.010%
Max	Aerial	Non-Forested	Plane	Angler	9.02E-02	1.00E+00	1.00E-06	7.67E+02	6.92E-05	5.00E-01	0.014%
Max	Aerial	Non-Forested	Helicopter	Angler	9.01E-02	1.00E+00	1.00E-06	7.67E+02	6.91E-05	5.00E-01	0.014%
Max	Aerial	Forested	Plane	Angler	9.09E-02	1.00E+00	1.00E-06	7.67E+02	6.98E-05	5.00E-01	0.014%
Max	Aerial	Forested	Helicopter	Angler	8.96E-02	1.00E+00	1.00E-06	7.67E+02	6.88E-05	5.00E-01	0.014%
Max	Ground	Not applicable	Low Boom	Angler	8.96E-02	1.00E+00	1.00E-06	7.67E+02	6.88E-05	5.00E-01	0.014%
Max	Ground	Not applicable	High Boom	Angler	8.97E-02	1.00E+00	1.00E-06	7.67E+02	6.88E-05	5.00E-01	0.014%
Typical	Aerial	Non-Forested	Plane	N.American - child	6.39E-02	1.00E+00	1.00E-06	1.11E+04	7.12E-04	5.00E-01	0.14%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	6.39E-02	1.00E+00	1.00E-06	1.11E+04	7.11E-04	5.00E-01	0.14%
Typical	Aerial	Forested	Plane	N.American - child	6.45E-02	1.00E+00	1.00E-06	1.11E+04	7.18E-04	5.00E-01	0.14%
Typical	Aerial	Forested	Helicopter	N.American - child	6.35E-02	1.00E+00	1.00E-06	1.11E+04	7.08E-04	5.00E-01	0.14%
Typical	Ground	Not applicable	Low Boom	N.American - child	6.35E-02	1.00E+00	1.00E-06	1.11E+04	7.07E-04	5.00E-01	0.14%
Typical	Ground	Not applicable	High Boom	N.American - child	6.36E-02	1.00E+00	1.00E-06	1.11E+04	7.08E-04	5.00E-01	0.14%
Max	Aerial	Non-Forested	Plane	N.American - child	9.02E-02	1.00E+00	1.00E-06	1.11E+04	1.00E-03	5.00E-01	0.20%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.01E-02	1.00E+00	1.00E-06	1.11E+04	1.00E-03	5.00E-01	0.20%
Max	Aerial	Forested	Plane	N.American - child	9.09E-02	1.00E+00	1.00E-06	1.11E+04	1.01E-03	5.00E-01	0.20%
Max	Aerial	Forested	Helicopter	N.American - child	8.96E-02	1.00E+00	1.00E-06	1.11E+04	9.98E-04	5.00E-01	0.20%
Max	Ground	Not applicable	Low Boom	N.American - child	8.96E-02	1.00E+00	1.00E-06	1.11E+04	9.98E-04	5.00E-01	0.20%
Max	Ground	Not applicable	High Boom	N.American - child	8.97E-02	1.00E+00	1.00E-06	1.11E+04	9.98E-04	5.00E-01	0.20%
Typical	Aerial	Non-Forested	Plane	N.American - adult	6.39E-02	1.00E+00	1.00E-06	1.11E+04	7.12E-04	5.00E-01	0.14%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	6.39E-02	1.00E+00	1.00E-06	1.11E+04	7.11E-04	5.00E-01	0.14%
Typical	Aerial	Forested	Plane	N.American - adult	6.45E-02	1.00E+00	1.00E-06	1.11E+04	7.18E-04	5.00E-01	0.14%
Typical	Aerial	Forested	Helicopter	N.American - adult	6.35E-02	1.00E+00	1.00E-06	1.11E+04	7.07E-04	5.00E-01	0.14%
Typical	Ground	Not applicable	Low Boom	N.American - adult	6.35E-02	1.00E+00	1.00E-06	1.11E+04	7.07E-04	5.00E-01	0.14%
Typical	Ground	Not applicable	High Boom	N.American - adult	6.36E-02	1.00E+00	1.00E-06	1.11E+04	7.08E-04	5.00E-01	0.14%
Max	Aerial	Non-Forested	Plane	N.American - adult	9.02E-02	1.00E+00	1.00E-06	1.11E+04	1.00E-03	5.00E-01	0.20%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.01E-02	1.00E+00	1.00E-06	1.11E+04	1.00E-03	5.00E-01	0.20%
Max	Aerial	Forested	Plane	N.American - adult	9.09E-02	1.00E+00	1.00E-06	1.11E+04	1.01E-03	5.00E-01	0.20%
Max	Aerial	Forested	Helicopter	N.American - adult	8.96E-02	1.00E+00	1.00E-06	1.11E+04	9.98E-04	5.00E-01	0.20%
Max	Ground	Not applicable	Low Boom	N.American - adult	8.96E-02	1.00E+00	1.00E-06	1.11E+04	9.98E-04	5.00E-01	0.20%
Max	Ground	Not applicable	High Boom	N.American - adult	8.97E-02	1.00E+00	1.00E-06	1.11E+04	9.98E-04	5.00E-01	0.20%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	5.00E-01	0.0269%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	2.80E-05	4.00E+00	1.12E-04	5.00E-01	0.0224%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	7.84E-05	4.00E+00	3.14E-04	5.00E-01	0.063%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	4.48E-06	4.00E+00	1.79E-05	5.00E-01	0.00358%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	5.00E-01	0.00269%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	5.00E-01	0.0054%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	5.00E-01	0.0403%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	5.00E-01	0.0332%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.11E-04	4.00E+00	4.44E-04	5.00E-01	0.089%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	5.00E-01	0.0072%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	5.00E-01	0.0270%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	2.80E-05	4.03E+00	1.13E-04	5.00E-01	0.0225%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	7.84E-05	4.03E+00	3.16E-04	5.00E-01	0.063%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	4.48E-06	4.03E+00	1.80E-05	5.00E-01	0.00361%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	5.00E-01	0.00270%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	5.00E-01	0.0054%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	5.00E-01	0.0406%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	5.00E-01	0.0334%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.11E-04	4.03E+00	4.46E-04	5.00E-01	0.089%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	5.00E-01	0.0072%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	5.00E-01	0.0269%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	2.80E-05	4.00E+00	1.12E-04	5.00E-01	0.0224%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	7.84E-05	4.00E+00	3.14E-04	5.00E-01	0.063%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	4.48E-06	4.00E+00	1.79E-05	5.00E-01	0.00358%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	5.00E-01	0.00269%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	5.00E-01	0.0054%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	5.00E-01	0.0403%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	5.00E-01	0.0332%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.11E-04	4.00E+00	4.44E-04	5.00E-01	0.089%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	5.00E-01	0.0072%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	5.00E-01	0.0270%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	2.80E-05	4.03E+00	1.13E-04	5.00E-01	0.0225%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	7.84E-05	4.03E+00	3.16E-04	5.00E-01	0.063%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	4.48E-06	4.03E+00	1.80E-05	5.00E-01	0.00361%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	5.00E-01	0.00270%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	5.00E-01	0.0054%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	5.00E-01	0.0406%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	5.00E-01	0.0334%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.11E-04	4.03E+00	4.46E-04	5.00E-01	0.089%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	5.00E-01	0.0072%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.11E+02
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.11E+02
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.08E+02
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.13E+02
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.13E+02
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.13E+02
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.45%	--	--	2.20E+02
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.45%	--	--	2.21E+02
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.46%	--	--	2.19E+02
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.45%	--	--	2.22E+02
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.45%	--	--	2.22E+02
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.45%	--	--	2.22E+02
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.0269%	--	1.14E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.0224%	--	1.14E+02
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.86%	0.063%	--	1.08E+02
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.00358%	--	1.18E+02
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.00269%	--	1.18E+02
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.0054%	--	1.17E+02
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	1.20%	0.0403%	--	8.05E+01
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	1.20%	0.0332%	--	8.10E+01
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	1.21%	0.089%	--	7.69E+01
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	1.19%	0.0045%	--	8.34E+01
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	1.19%	0.0045%	--	8.34E+01
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	1.20%	0.0072%	--	8.32E+01
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.0270%	--	2.87E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.0225%	--	2.91E+02
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.063%	--	2.58E+02
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.00361%	--	3.09E+02
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.00270%	--	3.10E+02
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.0054%	--	3.07E+02
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.45%	0.0406%	--	2.02E+02
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.45%	0.0334%	--	2.06E+02
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.46%	0.089%	--	1.83E+02
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.45%	0.0045%	--	2.20E+02
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.45%	0.0045%	--	2.20E+02
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.45%	0.0072%	--	2.18E+02

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.02E+02
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.02E+02
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	2.99E+02
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.03E+02
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.04E+02
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.03E+02
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.45%	--	0.014%	2.14E+02
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.45%	--	0.014%	2.14E+02
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.46%	--	0.014%	2.12E+02
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.45%	--	0.014%	2.15E+02
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.45%	--	0.014%	2.15E+02
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.45%	--	0.014%	2.15E+02
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.02E+09	--	0.43%	0.0269%	0.14%	1.68E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.02E+09	--	0.43%	0.0224%	0.14%	1.69E+02
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.01E+09	--	0.43%	0.063%	0.14%	1.57E+02
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.02E+09	--	0.42%	0.00358%	0.14%	1.76E+02
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	1.02E+09	--	0.42%	0.00269%	0.14%	1.76E+02
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	1.02E+09	--	0.42%	0.0054%	0.14%	1.75E+02
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	7.19E+08	--	0.60%	0.0403%	0.20%	1.19E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	7.20E+08	--	0.60%	0.0332%	0.20%	1.20E+02
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	7.14E+08	--	0.61%	0.089%	0.20%	1.11E+02
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	7.24E+08	--	0.60%	0.0045%	0.20%	1.25E+02
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	7.24E+08	--	0.60%	0.0045%	0.20%	1.25E+02
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	7.24E+08	--	0.60%	0.0072%	0.20%	1.24E+02
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.97E+09	--	0.16%	0.0270%	0.14%	3.03E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.97E+09	--	0.16%	0.0225%	0.14%	3.07E+02
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.96E+09	--	0.16%	0.063%	0.14%	2.71E+02
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.98E+09	--	0.16%	0.00361%	0.14%	3.28E+02
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.98E+09	--	0.16%	0.00270%	0.14%	3.29E+02
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.98E+09	--	0.16%	0.0054%	0.14%	3.26E+02
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.40E+09	--	0.23%	0.0406%	0.20%	2.14E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.40E+09	--	0.23%	0.0334%	0.20%	2.17E+02
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.39E+09	--	0.23%	0.089%	0.20%	1.92E+02
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.41E+09	--	0.23%	0.0045%	0.20%	2.33E+02
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.41E+09	--	0.23%	0.0045%	0.20%	2.33E+02
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.41E+09	--	0.23%	0.0072%	0.20%	2.31E+02

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	2.64E+09	2.03E+05	--	--	--	2.03E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.64E+09	2.04E+05	--	--	--	2.04E+03
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	2.62E+09	2.02E+05	--	--	--	2.02E+03
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.65E+09	2.05E+05	--	--	--	2.05E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	2.65E+09	2.05E+05	--	--	--	2.05E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	2.65E+09	2.04E+05	--	--	--	2.04E+03
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	1.87E+09	1.44E+05	--	--	--	1.44E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.87E+09	1.44E+05	--	--	--	1.44E+03
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	1.86E+09	1.43E+05	--	--	--	1.43E+03
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.88E+09	1.45E+05	--	--	--	1.45E+03
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	1.88E+09	1.45E+05	--	--	--	1.45E+03
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	1.88E+09	1.45E+05	--	--	--	1.45E+03
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.13E+09	1.82E+06	--	--	--	1.82E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.13E+09	1.82E+06	--	--	--	1.82E+04
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.08E+09	1.81E+06	--	--	--	1.81E+04
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.16E+09	1.83E+06	--	--	--	1.83E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	5.16E+09	1.83E+06	--	--	--	1.83E+04
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	5.16E+09	1.83E+06	--	--	--	1.83E+04
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	3.64E+09	1.29E+06	--	--	--	1.29E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	3.64E+09	1.29E+06	--	--	--	1.29E+04
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	3.61E+09	1.28E+06	--	--	--	1.28E+04
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	3.66E+09	1.30E+06	--	--	--	1.30E+04
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	3.66E+09	1.30E+06	--	--	--	1.30E+04
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	3.66E+09	1.30E+06	--	--	--	1.30E+04

--Receptor not exposed via this pathway.
NA - Not Available.
NC - Not Calculated (No dose-response value).
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Intermediate-term Exposure

Herbicide: **Aminopyralid**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

EIS HHRA

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	Typical Application Rate Scenario ARIs (a)						**Maximum Application Rate Scenario ARIs (a)**					
AgDrift Scenario: **Land Type (b):** **Equipment (c):**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**
Hiker/Hunter (Adult)	311	311	308	313	313	313	220	221	219	222	222	222
Berry Picker (Child)	114	114	108	118	118	117	80	81	77	83	83	83
Berry Picker (Adult)	287	291	258	309	310	307	202	206	183	220	220	218
Angler (Adult)	302	302	299	303	304	303	214	214	212	215	215	215
Residential (Child)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Residential (Adult)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Native American (Child)	168	169	157	176	176	175	119	120	111	125	125	124
Native American (Adult)	303	307	271	328	329	326	214	217	192	233	233	231
Swimmer (Child)	2,034	2,036	2,016	2,045	2,046	2,045	1,442	1,443	1,430	1,450	1,451	1,450
Swimmer (Adult)	18,211	18,231	18,056	18,318	18,319	18,310	12,909	12,925	12,802	12,989	12,990	12,983

ARI - Aggregate Risk Index. Values less than one represent a level of concern. ARI does not include dermal exposure due to low toxicity (see Table 3-1).

NC - Not Calculated. No dose-response values available for dermal exposure due to low toxicity (see Table 3-1).

(a) - Application rates are shown on Table 4-1 and are the same for each program.

(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.

(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	NA	8.96E-06	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	NA	2.80E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	NA	7.84E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	NA	4.48E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	NA	3.36E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	NA	6.72E-06	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	NA	5.04E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	NA	4.14E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	NA	1.11E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	NA	8.96E-06	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	NA	8.96E-06	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	NA	8.96E-06	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	NA	2.80E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	NA	7.84E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	NA	4.48E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	NA	3.36E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	NA	6.72E-06	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	NA	5.04E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	NA	4.14E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	NA	1.11E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	NA	8.96E-06	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	NA	8.96E-06	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	NA	2.80E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	NA	7.84E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	NA	4.48E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	NA	3.36E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	NA	6.72E-06	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	NA	5.04E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	NA	4.14E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	NA	1.11E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	NA	8.96E-06	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	2.80E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	NA	7.84E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	NA	4.48E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	NA	3.36E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	NA	6.72E-06	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	NA	5.04E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	NA	1.11E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	NA	8.96E-06	7.17E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	3.36E-05	8.40E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	2.80E-05	7.00E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	7.84E-05	1.96E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	4.48E-06	1.12E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	3.36E-06	8.40E-07	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	6.72E-06	1.68E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	5.04E-05	1.26E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	4.14E-05	1.04E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	1.11E-04	2.77E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	8.96E-06	2.24E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	3.36E-05	8.40E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	2.80E-05	7.00E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	7.84E-05	1.96E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	4.48E-06	1.12E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	3.36E-06	8.40E-07	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	6.72E-06	1.68E-06	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	5.04E-05	1.26E-05	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	4.14E-05	1.04E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	1.11E-04	2.77E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	5.60E-06	1.40E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	5.60E-06	1.40E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	8.96E-06	2.24E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	3.36E-05	8.40E-06	3.46E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	2.80E-05	7.00E-06	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	7.84E-05	1.96E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	4.48E-06	1.12E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	3.36E-06	8.40E-07	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	6.72E-06	1.68E-06	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	5.04E-05	1.26E-05	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	4.14E-05	1.04E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	1.11E-04	2.77E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	5.60E-06	1.40E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	5.60E-06	1.40E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	8.96E-06	2.24E-06	3.46E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	3.36E-05	8.40E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	2.80E-05	7.00E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	2.50E-01	NA	7.84E-05	1.96E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	4.48E-06	1.12E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	3.36E-06	8.40E-07	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	6.72E-06	1.68E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	5.04E-05	1.26E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	4.14E-05	1.04E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	2.50E-01	NA	1.11E-04	2.77E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	8.96E-06	2.24E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	3.36E-05	3.36E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	2.80E-05	2.80E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	NA	7.84E-05	7.84E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	4.48E-06	4.48E-08	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	3.36E-06	3.36E-08	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	6.72E-06	6.72E-08	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	5.04E-05	5.04E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	4.14E-05	4.14E-07	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	1.00E-02	NA	1.11E-04	1.11E-06	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	5.60E-06	5.60E-08	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	5.60E-06	5.60E-08	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	8.96E-06	8.96E-08	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	3.36E-05	3.36E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	2.80E-05	2.80E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	7.84E-05	7.84E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	4.48E-06	4.48E-08	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	3.36E-06	3.36E-08	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	6.72E-06	6.72E-08	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	5.04E-05	5.04E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	4.14E-05	4.14E-07	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	1.11E-04	1.11E-06	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	5.60E-06	5.60E-08	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	5.60E-06	5.60E-08	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	8.96E-06	8.96E-08	3.40E+03	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	3.36E-05	8.40E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	2.80E-05	7.00E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	7.84E-05	1.96E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	4.48E-06	1.12E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	3.36E-06	8.40E-07	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	6.72E-06	1.68E-06	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	5.04E-05	1.26E-05	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	4.14E-05	1.04E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	1.11E-04	2.77E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	5.60E-06	1.40E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	5.60E-06	1.40E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	8.96E-06	2.24E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	3.36E-05	8.40E-06	4.15E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	2.80E-05	7.00E-06	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	7.84E-05	1.96E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	4.48E-06	1.12E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	3.36E-06	8.40E-07	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	6.72E-06	1.68E-06	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	5.04E-05	1.26E-05	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	4.14E-05	1.04E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	1.11E-04	2.77E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	5.60E-06	1.40E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	5.60E-06	1.40E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	8.96E-06	2.24E-06	4.15E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.40E-06	4.54E-02	1.00E-03	4.40E+02	2.80E-08	1.04E+02	3.71E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.40E-06	4.54E-02	1.00E-03	4.40E+02	2.80E-08	1.04E+02	3.72E+09
Typical	Aerial	Forested	Plane	Swimmer-child	1.40E-06	4.60E-02	1.00E-03	4.40E+02	2.83E-08	1.04E+02	3.67E+09
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.40E-06	4.50E-02	1.00E-03	4.40E+02	2.78E-08	1.04E+02	3.74E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.40E-06	4.50E-02	1.00E-03	4.40E+02	2.78E-08	1.04E+02	3.75E+09
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.40E-06	4.51E-02	1.00E-03	4.40E+02	2.78E-08	1.04E+02	3.74E+09
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.40E-06	6.41E-02	1.00E-03	4.40E+02	3.95E-08	1.04E+02	2.63E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.40E-06	6.40E-02	1.00E-03	4.40E+02	3.94E-08	1.04E+02	2.64E+09
Max	Aerial	Forested	Plane	Swimmer-child	1.40E-06	6.48E-02	1.00E-03	4.40E+02	4.00E-08	1.04E+02	2.60E+09
Max	Aerial	Forested	Helicopter	Swimmer-child	1.40E-06	6.35E-02	1.00E-03	4.40E+02	3.92E-08	1.04E+02	2.66E+09
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.40E-06	6.35E-02	1.00E-03	4.40E+02	3.92E-08	1.04E+02	2.66E+09
Max	Ground	Not applicable	High Boom	Swimmer-child	1.40E-06	6.36E-02	1.00E-03	4.40E+02	3.92E-08	1.04E+02	2.65E+09
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.40E-06	4.54E-02	1.00E-03	2.26E+02	1.44E-08	1.04E+02	7.22E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.40E-06	4.54E-02	1.00E-03	2.26E+02	1.44E-08	1.04E+02	7.23E+09
Typical	Aerial	Forested	Plane	Swimmer-adult	1.40E-06	4.60E-02	1.00E-03	2.26E+02	1.46E-08	1.04E+02	7.13E+09
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.40E-06	4.50E-02	1.00E-03	2.26E+02	1.43E-08	1.04E+02	7.28E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.40E-06	4.50E-02	1.00E-03	2.26E+02	1.43E-08	1.04E+02	7.28E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.40E-06	4.51E-02	1.00E-03	2.26E+02	1.43E-08	1.04E+02	7.27E+09
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.40E-06	6.41E-02	1.00E-03	2.26E+02	2.03E-08	1.04E+02	5.12E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.40E-06	6.40E-02	1.00E-03	2.26E+02	2.03E-08	1.04E+02	5.12E+09
Max	Aerial	Forested	Plane	Swimmer-adult	1.40E-06	6.48E-02	1.00E-03	2.26E+02	2.06E-08	1.04E+02	5.06E+09
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.40E-06	6.35E-02	1.00E-03	2.26E+02	2.02E-08	1.04E+02	5.16E+09
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.40E-06	6.35E-02	1.00E-03	2.26E+02	2.02E-08	1.04E+02	5.16E+09
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.40E-06	6.36E-02	1.00E-03	2.26E+02	2.02E-08	1.04E+02	5.16E+09
Typical	Aerial	Non-Forested	Plane	N.American-child	1.40E-06	4.54E-02	1.00E-03	1.14E+03	7.28E-08	1.04E+02	1.43E+09
Typical	Aerial	Non-Forested	Helicopter	N.American-child	1.40E-06	4.54E-02	1.00E-03	1.14E+03	7.27E-08	1.04E+02	1.43E+09
Typical	Aerial	Forested	Plane	N.American-child	1.40E-06	4.60E-02	1.00E-03	1.14E+03	7.37E-08	1.04E+02	1.41E+09
Typical	Aerial	Forested	Helicopter	N.American-child	1.40E-06	4.50E-02	1.00E-03	1.14E+03	7.22E-08	1.04E+02	1.44E+09
Typical	Ground	Not applicable	Low Boom	N.American-child	1.40E-06	4.50E-02	1.00E-03	1.14E+03	7.22E-08	1.04E+02	1.44E+09
Typical	Ground	Not applicable	High Boom	N.American-child	1.40E-06	4.51E-02	1.00E-03	1.14E+03	7.23E-08	1.04E+02	1.44E+09
Max	Aerial	Non-Forested	Plane	N.American-child	1.40E-06	6.41E-02	1.00E-03	1.14E+03	1.03E-07	1.04E+02	1.01E+09
Max	Aerial	Non-Forested	Helicopter	N.American-child	1.40E-06	6.40E-02	1.00E-03	1.14E+03	1.03E-07	1.04E+02	1.01E+09
Max	Aerial	Forested	Plane	N.American-child	1.40E-06	6.48E-02	1.00E-03	1.14E+03	1.04E-07	1.04E+02	1.00E+09
Max	Aerial	Forested	Helicopter	N.American-child	1.40E-06	6.35E-02	1.00E-03	1.14E+03	1.02E-07	1.04E+02	1.02E+09
Max	Ground	Not applicable	Low Boom	N.American-child	1.40E-06	6.35E-02	1.00E-03	1.14E+03	1.02E-07	1.04E+02	1.02E+09
Max	Ground	Not applicable	High Boom	N.American-child	1.40E-06	6.36E-02	1.00E-03	1.14E+03	1.02E-07	1.04E+02	1.02E+09

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	1.40E-06	4.54E-02	1.00E-03	5.89E+02	3.75E-08	1.04E+02	2.78E+09
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	1.40E-06	4.54E-02	1.00E-03	5.89E+02	3.74E-08	1.04E+02	2.78E+09
Typical	Aerial	Forested	Plane	N.American-adult	1.40E-06	4.60E-02	1.00E-03	5.89E+02	3.79E-08	1.04E+02	2.74E+09
Typical	Aerial	Forested	Helicopter	N.American-adult	1.40E-06	4.50E-02	1.00E-03	5.89E+02	3.72E-08	1.04E+02	2.80E+09
Typical	Ground	Not applicable	Low Boom	N.American-adult	1.40E-06	4.50E-02	1.00E-03	5.89E+02	3.72E-08	1.04E+02	2.80E+09
Typical	Ground	Not applicable	High Boom	N.American-adult	1.40E-06	4.51E-02	1.00E-03	5.89E+02	3.72E-08	1.04E+02	2.80E+09
Max	Aerial	Non-Forested	Plane	N.American-adult	1.40E-06	6.41E-02	1.00E-03	5.89E+02	5.29E-08	1.04E+02	1.97E+09
Max	Aerial	Non-Forested	Helicopter	N.American-adult	1.40E-06	6.40E-02	1.00E-03	5.89E+02	5.28E-08	1.04E+02	1.97E+09
Max	Aerial	Forested	Plane	N.American-adult	1.40E-06	6.48E-02	1.00E-03	5.89E+02	5.35E-08	1.04E+02	1.94E+09
Max	Aerial	Forested	Helicopter	N.American-adult	1.40E-06	6.35E-02	1.00E-03	5.89E+02	5.24E-08	1.04E+02	1.98E+09
Max	Ground	Not applicable	Low Boom	N.American-adult	1.40E-06	6.35E-02	1.00E-03	5.89E+02	5.24E-08	1.04E+02	1.98E+09
Max	Ground	Not applicable	High Boom	N.American-adult	1.40E-06	6.36E-02	1.00E-03	5.89E+02	5.24E-08	1.04E+02	1.98E+09

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	4.54E-02	8.00E-03	3.63E-04	1.04E+02	2.86E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	4.54E-02	8.00E-03	3.63E-04	1.04E+02	2.87E+05
Typical	Aerial	Forested	Plane	Swimmer-child	4.60E-02	8.00E-03	3.68E-04	1.04E+02	2.83E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	4.50E-02	8.00E-03	3.60E-04	1.04E+02	2.89E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	4.50E-02	8.00E-03	3.60E-04	1.04E+02	2.89E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	4.51E-02	8.00E-03	3.61E-04	1.04E+02	2.88E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	6.41E-02	8.00E-03	5.13E-04	1.04E+02	2.03E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	6.40E-02	8.00E-03	5.12E-04	1.04E+02	2.03E+05
Max	Aerial	Forested	Plane	Swimmer-child	6.48E-02	8.00E-03	5.19E-04	1.04E+02	2.01E+05
Max	Aerial	Forested	Helicopter	Swimmer-child	6.35E-02	8.00E-03	5.08E-04	1.04E+02	2.05E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	6.35E-02	8.00E-03	5.08E-04	1.04E+02	2.05E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	6.36E-02	8.00E-03	5.09E-04	1.04E+02	2.05E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	4.54E-02	8.93E-04	4.06E-05	1.04E+02	2.56E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	4.54E-02	8.93E-04	4.05E-05	1.04E+02	2.57E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	4.60E-02	8.93E-04	4.11E-05	1.04E+02	2.53E+06
Typical	Aerial	Forested	Helicopter	Swimmer-adult	4.50E-02	8.93E-04	4.02E-05	1.04E+02	2.59E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	4.50E-02	8.93E-04	4.02E-05	1.04E+02	2.59E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	4.51E-02	8.93E-04	4.03E-05	1.04E+02	2.58E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	6.41E-02	8.93E-04	5.72E-05	1.04E+02	1.82E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	6.40E-02	8.93E-04	5.71E-05	1.04E+02	1.82E+06
Max	Aerial	Forested	Plane	Swimmer-adult	6.48E-02	8.93E-04	5.79E-05	1.04E+02	1.80E+06
Max	Aerial	Forested	Helicopter	Swimmer-adult	6.35E-02	8.93E-04	5.67E-05	1.04E+02	1.83E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	6.35E-02	8.93E-04	5.67E-05	1.04E+02	1.83E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	6.36E-02	8.93E-04	5.68E-05	1.04E+02	1.83E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	4.54E-02	2.52E-02	1.14E-03	5.00E-01	0.23%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	4.54E-02	2.52E-02	1.14E-03	5.00E-01	0.23%
Typical	Aerial	Forested	Plane	Hiker/Hunter	4.60E-02	2.52E-02	1.16E-03	5.00E-01	0.23%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	4.50E-02	2.52E-02	1.13E-03	5.00E-01	0.23%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	4.50E-02	2.52E-02	1.13E-03	5.00E-01	0.23%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	4.51E-02	2.52E-02	1.13E-03	5.00E-01	0.23%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	6.41E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	6.40E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Max	Aerial	Forested	Plane	Hiker/Hunter	6.48E-02	2.52E-02	1.63E-03	5.00E-01	0.33%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	6.36E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Typical	Aerial	Non-Forested	Plane	Berry - child	4.54E-02	6.67E-02	3.03E-03	5.00E-01	0.61%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	4.54E-02	6.67E-02	3.02E-03	5.00E-01	0.60%
Typical	Aerial	Forested	Plane	Berry - child	4.60E-02	6.67E-02	3.06E-03	5.00E-01	0.61%
Typical	Aerial	Forested	Helicopter	Berry - child	4.50E-02	6.67E-02	3.00E-03	5.00E-01	0.60%
Typical	Ground	Not applicable	Low Boom	Berry - child	4.50E-02	6.67E-02	3.00E-03	5.00E-01	0.60%
Typical	Ground	Not applicable	High Boom	Berry - child	4.51E-02	6.67E-02	3.01E-03	5.00E-01	0.60%
Max	Aerial	Non-Forested	Plane	Berry - child	6.41E-02	6.67E-02	4.27E-03	5.00E-01	0.85%
Max	Aerial	Non-Forested	Helicopter	Berry - child	6.40E-02	6.67E-02	4.26E-03	5.00E-01	0.85%
Max	Aerial	Forested	Plane	Berry - child	6.48E-02	6.67E-02	4.32E-03	5.00E-01	0.86%
Max	Aerial	Forested	Helicopter	Berry - child	6.35E-02	6.67E-02	4.24E-03	5.00E-01	0.85%
Max	Ground	Not applicable	Low Boom	Berry - child	6.35E-02	6.67E-02	4.23E-03	5.00E-01	0.85%
Max	Ground	Not applicable	High Boom	Berry - child	6.36E-02	6.67E-02	4.24E-03	5.00E-01	0.85%
Typical	Aerial	Non-Forested	Plane	Berry - adult	4.54E-02	2.52E-02	1.14E-03	5.00E-01	0.23%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	4.54E-02	2.52E-02	1.14E-03	5.00E-01	0.23%
Typical	Aerial	Forested	Plane	Berry - adult	4.60E-02	2.52E-02	1.16E-03	5.00E-01	0.23%
Typical	Aerial	Forested	Helicopter	Berry - adult	4.50E-02	2.52E-02	1.13E-03	5.00E-01	0.23%
Typical	Ground	Not applicable	Low Boom	Berry - adult	4.50E-02	2.52E-02	1.13E-03	5.00E-01	0.23%
Typical	Ground	Not applicable	High Boom	Berry - adult	4.51E-02	2.52E-02	1.13E-03	5.00E-01	0.23%
Max	Aerial	Non-Forested	Plane	Berry - adult	6.41E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	6.40E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Max	Aerial	Forested	Plane	Berry - adult	6.48E-02	2.52E-02	1.63E-03	5.00E-01	0.33%
Max	Aerial	Forested	Helicopter	Berry - adult	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Max	Ground	Not applicable	Low Boom	Berry - adult	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Max	Ground	Not applicable	High Boom	Berry - adult	6.36E-02	2.52E-02	1.60E-03	5.00E-01	0.32%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	4.54E-02	2.52E-02	1.14E-03	5.00E-01	0.23%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.54E-02	2.52E-02	1.14E-03	5.00E-01	0.23%
Typical	Aerial	Forested	Plane	Angler	4.60E-02	2.52E-02	1.16E-03	5.00E-01	0.23%
Typical	Aerial	Forested	Helicopter	Angler	4.50E-02	2.52E-02	1.13E-03	5.00E-01	0.23%
Typical	Ground	Not applicable	Low Boom	Angler	4.50E-02	2.52E-02	1.13E-03	5.00E-01	0.23%
Typical	Ground	Not applicable	High Boom	Angler	4.51E-02	2.52E-02	1.13E-03	5.00E-01	0.23%
Max	Aerial	Non-Forested	Plane	Angler	6.41E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Max	Aerial	Non-Forested	Helicopter	Angler	6.40E-02	2.52E-02	1.61E-03	5.00E-01	0.32%
Max	Aerial	Forested	Plane	Angler	6.48E-02	2.52E-02	1.63E-03	5.00E-01	0.33%
Max	Aerial	Forested	Helicopter	Angler	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Max	Ground	Not applicable	Low Boom	Angler	6.35E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Max	Ground	Not applicable	High Boom	Angler	6.36E-02	2.52E-02	1.60E-03	5.00E-01	0.32%
Typical	Aerial	Non-Forested	Plane	N.American - child	4.54E-02	3.33E-02	1.51E-03	5.00E-01	0.30%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.54E-02	3.33E-02	1.51E-03	5.00E-01	0.30%
Typical	Aerial	Forested	Plane	N.American - child	4.60E-02	3.33E-02	1.53E-03	5.00E-01	0.31%
Typical	Aerial	Forested	Helicopter	N.American - child	4.50E-02	3.33E-02	1.50E-03	5.00E-01	0.30%
Typical	Ground	Not applicable	Low Boom	N.American - child	4.50E-02	3.33E-02	1.50E-03	5.00E-01	0.30%
Typical	Ground	Not applicable	High Boom	N.American - child	4.51E-02	3.33E-02	1.50E-03	5.00E-01	0.30%
Max	Aerial	Non-Forested	Plane	N.American - child	6.41E-02	3.33E-02	2.14E-03	5.00E-01	0.43%
Max	Aerial	Non-Forested	Helicopter	N.American - child	6.40E-02	3.33E-02	2.13E-03	5.00E-01	0.43%
Max	Aerial	Forested	Plane	N.American - child	6.48E-02	3.33E-02	2.16E-03	5.00E-01	0.43%
Max	Aerial	Forested	Helicopter	N.American - child	6.35E-02	3.33E-02	2.12E-03	5.00E-01	0.42%
Max	Ground	Not applicable	Low Boom	N.American - child	6.35E-02	3.33E-02	2.12E-03	5.00E-01	0.42%
Max	Ground	Not applicable	High Boom	N.American - child	6.36E-02	3.33E-02	2.12E-03	5.00E-01	0.42%
Typical	Aerial	Non-Forested	Plane	N.American - adult	4.54E-02	1.26E-02	5.71E-04	5.00E-01	0.11%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.54E-02	1.26E-02	5.70E-04	5.00E-01	0.11%
Typical	Aerial	Forested	Plane	N.American - adult	4.60E-02	1.26E-02	5.78E-04	5.00E-01	0.12%
Typical	Aerial	Forested	Helicopter	N.American - adult	4.50E-02	1.26E-02	5.67E-04	5.00E-01	0.11%
Typical	Ground	Not applicable	Low Boom	N.American - adult	4.50E-02	1.26E-02	5.67E-04	5.00E-01	0.11%
Typical	Ground	Not applicable	High Boom	N.American - adult	4.51E-02	1.26E-02	5.67E-04	5.00E-01	0.11%
Max	Aerial	Non-Forested	Plane	N.American - adult	6.41E-02	1.26E-02	8.06E-04	5.00E-01	0.16%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	6.40E-02	1.26E-02	8.05E-04	5.00E-01	0.16%
Max	Aerial	Forested	Plane	N.American - adult	6.48E-02	1.26E-02	8.16E-04	5.00E-01	0.16%
Max	Aerial	Forested	Helicopter	N.American - adult	6.35E-02	1.26E-02	7.99E-04	5.00E-01	0.16%
Max	Ground	Not applicable	Low Boom	N.American - adult	6.35E-02	1.26E-02	7.99E-04	5.00E-01	0.16%
Max	Ground	Not applicable	High Boom	N.American - adult	6.36E-02	1.26E-02	8.00E-04	5.00E-01	0.16%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Fish
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	4.54E-02	1.00E+00	1.00E-06	7.67E+02	3.49E-05	5.00E-01	0.0070%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.54E-02	1.00E+00	1.00E-06	7.67E+02	3.48E-05	5.00E-01	0.0070%
Typical	Aerial	Forested	Plane	Angler	4.60E-02	1.00E+00	1.00E-06	7.67E+02	3.53E-05	5.00E-01	0.0071%
Typical	Aerial	Forested	Helicopter	Angler	4.50E-02	1.00E+00	1.00E-06	7.67E+02	3.46E-05	5.00E-01	0.0069%
Typical	Ground	Not applicable	Low Boom	Angler	4.50E-02	1.00E+00	1.00E-06	7.67E+02	3.46E-05	5.00E-01	0.0069%
Typical	Ground	Not applicable	High Boom	Angler	4.51E-02	1.00E+00	1.00E-06	7.67E+02	3.46E-05	5.00E-01	0.0069%
Max	Aerial	Non-Forested	Plane	Angler	6.41E-02	1.00E+00	1.00E-06	7.67E+02	4.92E-05	5.00E-01	0.010%
Max	Aerial	Non-Forested	Helicopter	Angler	6.40E-02	1.00E+00	1.00E-06	7.67E+02	4.91E-05	5.00E-01	0.010%
Max	Aerial	Forested	Plane	Angler	6.48E-02	1.00E+00	1.00E-06	7.67E+02	4.97E-05	5.00E-01	0.010%
Max	Aerial	Forested	Helicopter	Angler	6.35E-02	1.00E+00	1.00E-06	7.67E+02	4.87E-05	5.00E-01	0.010%
Max	Ground	Not applicable	Low Boom	Angler	6.35E-02	1.00E+00	1.00E-06	7.67E+02	4.87E-05	5.00E-01	0.010%
Max	Ground	Not applicable	High Boom	Angler	6.36E-02	1.00E+00	1.00E-06	7.67E+02	4.88E-05	5.00E-01	0.010%
Typical	Aerial	Non-Forested	Plane	N.American - child	4.54E-02	1.00E+00	1.00E-06	1.11E+04	5.06E-04	5.00E-01	0.10%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.54E-02	1.00E+00	1.00E-06	1.11E+04	5.05E-04	5.00E-01	0.10%
Typical	Aerial	Forested	Plane	N.American - child	4.60E-02	1.00E+00	1.00E-06	1.11E+04	5.12E-04	5.00E-01	0.10%
Typical	Aerial	Forested	Helicopter	N.American - child	4.50E-02	1.00E+00	1.00E-06	1.11E+04	5.02E-04	5.00E-01	0.10%
Typical	Ground	Not applicable	Low Boom	N.American - child	4.50E-02	1.00E+00	1.00E-06	1.11E+04	5.01E-04	5.00E-01	0.10%
Typical	Ground	Not applicable	High Boom	N.American - child	4.51E-02	1.00E+00	1.00E-06	1.11E+04	5.02E-04	5.00E-01	0.10%
Max	Aerial	Non-Forested	Plane	N.American - child	6.41E-02	1.00E+00	1.00E-06	1.11E+04	7.13E-04	5.00E-01	0.14%
Max	Aerial	Non-Forested	Helicopter	N.American - child	6.40E-02	1.00E+00	1.00E-06	1.11E+04	7.12E-04	5.00E-01	0.14%
Max	Aerial	Forested	Plane	N.American - child	6.48E-02	1.00E+00	1.00E-06	1.11E+04	7.22E-04	5.00E-01	0.14%
Max	Aerial	Forested	Helicopter	N.American - child	6.35E-02	1.00E+00	1.00E-06	1.11E+04	7.07E-04	5.00E-01	0.14%
Max	Ground	Not applicable	Low Boom	N.American - child	6.35E-02	1.00E+00	1.00E-06	1.11E+04	7.07E-04	5.00E-01	0.14%
Max	Ground	Not applicable	High Boom	N.American - child	6.36E-02	1.00E+00	1.00E-06	1.11E+04	7.08E-04	5.00E-01	0.14%
Typical	Aerial	Non-Forested	Plane	N.American - adult	4.54E-02	1.00E+00	1.00E-06	1.11E+04	5.06E-04	5.00E-01	0.10%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.54E-02	1.00E+00	1.00E-06	1.11E+04	5.05E-04	5.00E-01	0.10%
Typical	Aerial	Forested	Plane	N.American - adult	4.60E-02	1.00E+00	1.00E-06	1.11E+04	5.12E-04	5.00E-01	0.10%
Typical	Aerial	Forested	Helicopter	N.American - adult	4.50E-02	1.00E+00	1.00E-06	1.11E+04	5.01E-04	5.00E-01	0.10%
Typical	Ground	Not applicable	Low Boom	N.American - adult	4.50E-02	1.00E+00	1.00E-06	1.11E+04	5.01E-04	5.00E-01	0.10%
Typical	Ground	Not applicable	High Boom	N.American - adult	4.51E-02	1.00E+00	1.00E-06	1.11E+04	5.02E-04	5.00E-01	0.10%
Max	Aerial	Non-Forested	Plane	N.American - adult	6.41E-02	1.00E+00	1.00E-06	1.11E+04	7.13E-04	5.00E-01	0.14%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	6.40E-02	1.00E+00	1.00E-06	1.11E+04	7.12E-04	5.00E-01	0.14%
Max	Aerial	Forested	Plane	N.American - adult	6.48E-02	1.00E+00	1.00E-06	1.11E+04	7.22E-04	5.00E-01	0.14%
Max	Aerial	Forested	Helicopter	N.American - adult	6.35E-02	1.00E+00	1.00E-06	1.11E+04	7.07E-04	5.00E-01	0.14%
Max	Ground	Not applicable	Low Boom	N.American - adult	6.35E-02	1.00E+00	1.00E-06	1.11E+04	7.07E-04	5.00E-01	0.14%
Max	Ground	Not applicable	High Boom	N.American - adult	6.36E-02	1.00E+00	1.00E-06	1.11E+04	7.08E-04	5.00E-01	0.14%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	5.00E-01	0.0269%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	2.80E-05	4.00E+00	1.12E-04	5.00E-01	0.0224%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	7.84E-05	4.00E+00	3.14E-04	5.00E-01	0.063%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	4.48E-06	4.00E+00	1.79E-05	5.00E-01	0.00358%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	5.00E-01	0.00269%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	5.00E-01	0.0054%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	5.00E-01	0.0403%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	5.00E-01	0.0332%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.11E-04	4.00E+00	4.44E-04	5.00E-01	0.089%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	5.00E-01	0.0072%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	5.00E-01	0.0270%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	2.80E-05	4.03E+00	1.13E-04	5.00E-01	0.0225%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	7.84E-05	4.03E+00	3.16E-04	5.00E-01	0.063%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	4.48E-06	4.03E+00	1.80E-05	5.00E-01	0.00361%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	5.00E-01	0.00270%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	5.00E-01	0.0054%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	5.00E-01	0.0406%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	5.00E-01	0.0334%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.11E-04	4.03E+00	4.46E-04	5.00E-01	0.089%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	5.00E-01	0.0072%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	5.00E-01	0.0269%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	2.80E-05	4.00E+00	1.12E-04	5.00E-01	0.0224%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	7.84E-05	4.00E+00	3.14E-04	5.00E-01	0.063%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	4.48E-06	4.00E+00	1.79E-05	5.00E-01	0.00358%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	5.00E-01	0.00269%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	5.00E-01	0.0054%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	5.00E-01	0.0403%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	5.00E-01	0.0332%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.11E-04	4.00E+00	4.44E-04	5.00E-01	0.089%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	5.00E-01	0.0072%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	5.00E-01	0.0270%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	2.80E-05	4.03E+00	1.13E-04	5.00E-01	0.0225%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	7.84E-05	4.03E+00	3.16E-04	5.00E-01	0.063%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	4.48E-06	4.03E+00	1.80E-05	5.00E-01	0.00361%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	5.00E-01	0.00270%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	5.00E-01	0.0054%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	5.00E-01	0.0406%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	5.00E-01	0.0334%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.11E-04	4.03E+00	4.46E-04	5.00E-01	0.089%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	5.00E-01	0.0045%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	5.00E-01	0.0072%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.23%	--	--	4.38E+02
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.23%	--	--	4.38E+02
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.23%	--	--	4.32E+02
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.23%	--	--	4.41E+02
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.23%	--	--	4.41E+02
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.23%	--	--	4.41E+02
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.10E+02
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.11E+02
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.33%	--	--	3.07E+02
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.13E+02
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.13E+02
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.32%	--	--	3.13E+02
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.61%	0.0269%	--	1.58E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.60%	0.0224%	--	1.59E+02
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.61%	0.063%	--	1.48E+02
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.60%	0.00358%	--	1.66E+02
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.60%	0.00269%	--	1.66E+02
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.60%	0.0054%	--	1.65E+02
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.0403%	--	1.12E+02
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.0332%	--	1.13E+02
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.86%	0.089%	--	1.05E+02
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.0045%	--	1.17E+02
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.0045%	--	1.17E+02
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.85%	0.0072%	--	1.17E+02
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.23%	0.0270%	--	3.91E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.23%	0.0225%	--	3.99E+02
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.23%	0.063%	--	3.40E+02
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.23%	0.00361%	--	4.34E+02
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.23%	0.00270%	--	4.36E+02
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.23%	0.0054%	--	4.31E+02
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.0406%	--	2.75E+02
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.0334%	--	2.81E+02
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.33%	0.089%	--	2.41E+02
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.0045%	--	3.09E+02
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.0045%	--	3.09E+02
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.32%	0.0072%	--	3.06E+02

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.23%	--	0.0070%	4.25E+02
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.23%	--	0.0070%	4.25E+02
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.23%	--	0.0071%	4.20E+02
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.23%	--	0.0069%	4.28E+02
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.23%	--	0.0069%	4.28E+02
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.23%	--	0.0069%	4.28E+02
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.01E+02
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.01E+02
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.33%	--	0.010%	2.97E+02
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.04E+02
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.04E+02
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.32%	--	0.010%	3.03E+02
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.43E+09	--	0.30%	0.0269%	0.10%	2.32E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.43E+09	--	0.30%	0.0224%	0.10%	2.35E+02
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.41E+09	--	0.31%	0.063%	0.10%	2.12E+02
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.44E+09	--	0.30%	0.00358%	0.10%	2.47E+02
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	1.44E+09	--	0.30%	0.00269%	0.10%	2.48E+02
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	1.44E+09	--	0.30%	0.0054%	0.10%	2.46E+02
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.01E+09	--	0.43%	0.0403%	0.14%	1.64E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.01E+09	--	0.43%	0.0332%	0.14%	1.66E+02
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.00E+09	--	0.43%	0.089%	0.14%	1.50E+02
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.02E+09	--	0.42%	0.0045%	0.14%	1.76E+02
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	1.02E+09	--	0.42%	0.0045%	0.14%	1.76E+02
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	1.02E+09	--	0.42%	0.0072%	0.14%	1.75E+02
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	2.78E+09	--	0.11%	0.0270%	0.10%	4.12E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	2.78E+09	--	0.11%	0.0225%	0.10%	4.21E+02
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	2.74E+09	--	0.12%	0.063%	0.10%	3.56E+02
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	2.80E+09	--	0.11%	0.00361%	0.10%	4.60E+02
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	2.80E+09	--	0.11%	0.00270%	0.10%	4.62E+02
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	2.80E+09	--	0.11%	0.0054%	0.10%	4.56E+02
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.97E+09	--	0.16%	0.0406%	0.14%	2.90E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.97E+09	--	0.16%	0.0334%	0.14%	2.97E+02
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.94E+09	--	0.16%	0.089%	0.14%	2.52E+02
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.98E+09	--	0.16%	0.0045%	0.14%	3.27E+02
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.98E+09	--	0.16%	0.0045%	0.14%	3.27E+02
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.98E+09	--	0.16%	0.0072%	0.14%	3.24E+02

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	3.71E+09	2.86E+05	--	--	--	2.86E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	3.72E+09	2.87E+05	--	--	--	2.87E+03
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	3.67E+09	2.83E+05	--	--	--	2.83E+03
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	3.74E+09	2.89E+05	--	--	--	2.89E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	3.75E+09	2.89E+05	--	--	--	2.89E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	3.74E+09	2.88E+05	--	--	--	2.88E+03
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	2.63E+09	2.03E+05	--	--	--	2.03E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.64E+09	2.03E+05	--	--	--	2.03E+03
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	2.60E+09	2.01E+05	--	--	--	2.00E+03
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.66E+09	2.05E+05	--	--	--	2.05E+03
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	2.66E+09	2.05E+05	--	--	--	2.05E+03
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	2.65E+09	2.05E+05	--	--	--	2.04E+03
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	7.22E+09	2.56E+06	--	--	--	2.56E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	7.23E+09	2.57E+06	--	--	--	2.57E+04
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	7.13E+09	2.53E+06	--	--	--	2.53E+04
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	7.28E+09	2.59E+06	--	--	--	2.58E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	7.28E+09	2.59E+06	--	--	--	2.58E+04
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	7.27E+09	2.58E+06	--	--	--	2.58E+04
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.12E+09	1.82E+06	--	--	--	1.82E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.12E+09	1.82E+06	--	--	--	1.82E+04
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.06E+09	1.80E+06	--	--	--	1.80E+04
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.16E+09	1.83E+06	--	--	--	1.83E+04
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	5.16E+09	1.83E+06	--	--	--	1.83E+04
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	5.16E+09	1.83E+06	--	--	--	1.83E+04

--Receptor not exposed via this pathway.
NA - Not Available.
NC - Not Calculated (No dose-response value).
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.
(b) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Long-term Exposure
Herbicide: **Aminopyralid**
Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

EIS HHRA
BLM

	Typical Application Rate Scenario ARIs (a)						Maximum Application Rate Scenario ARIs (a)					
AgDrift Scenario:	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	438	438	432	441	441	441	310	311	307	313	313	313
Berry Picker (Child)	158	159	148	166	166	165	112	113	105	117	117	117
Berry Picker (Adult)	391	399	340	434	436	431	275	281	241	309	309	306
Angler (Adult)	425	425	420	428	428	428	301	301	297	304	304	303
Residential (Child)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Residential (Adult)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Native American (Child)	232	235	212	247	248	246	164	166	150	176	176	175
Native American (Adult)	412	421	356	460	462	456	290	297	252	327	327	324
Swimmer (Child)	2,862	2,866	2,828	2,886	2,886	2,884	2,028	2,032	2,005	2,046	2,046	2,045
Swimmer (Adult)	25,629	25,669	25,324	25,841	25,844	25,825	18,165	18,196	17,955	18,324	18,326	18,313

ARI - Aggregate Risk Index. Values less than one represent a level of concern. ARI does not include dermal exposure due to low toxicity (see Table 3-1).
NC - Not Calculated. No dose-response values available for dermal exposure due to low toxicity (see Table 3-1).
(a) - Application rates are shown on Table 4-1 and are the same for each program.
(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.
(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	NA	3.92E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	NA	4.03E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	NA	9.52E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	NA	5.60E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	NA	1.23E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	NA	1.93E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	NA	1.12E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	NA	3.92E-05	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	NA	3.92E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	NA	4.03E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	NA	9.52E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	NA	1.23E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	NA	1.93E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	NA	1.12E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	NA	3.92E-05	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	NA	4.03E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	NA	9.52E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	NA	1.23E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	NA	1.93E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	NA	1.12E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	NA	3.92E-05	7.17E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	4.03E-05	1.01E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	3.36E-05	8.40E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	9.52E-05	2.38E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	1.23E-05	3.08E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	2.02E-05	5.05E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	9.30E-05	2.33E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	7.39E-05	1.85E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	1.93E-04	4.83E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	1.12E-05	2.80E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	2.46E-05	6.15E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	3.92E-05	9.80E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	4.03E-05	1.01E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	3.36E-05	8.40E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	9.52E-05	2.38E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	5.60E-06	1.40E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	1.23E-05	3.08E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	2.02E-05	5.05E-06	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	9.30E-05	2.33E-05	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	7.39E-05	1.85E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	1.93E-04	4.83E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	1.12E-05	2.80E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	2.46E-05	6.15E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	3.92E-05	9.80E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	4.03E-05	1.01E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	3.36E-05	8.40E-06	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	9.52E-05	2.38E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	5.60E-06	1.40E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	1.23E-05	3.08E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	2.02E-05	5.05E-06	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	9.30E-05	2.33E-05	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	7.39E-05	1.85E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	1.93E-04	4.83E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	1.12E-05	2.80E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	2.46E-05	6.15E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	3.92E-05	9.80E-06	3.46E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	4.03E-05	1.01E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	3.36E-05	8.40E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	2.50E-01	NA	9.52E-05	2.38E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	1.23E-05	3.08E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	2.02E-05	5.05E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	9.30E-05	2.33E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	7.39E-05	1.85E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	2.50E-01	NA	1.93E-04	4.83E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	1.12E-05	2.80E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	2.46E-05	6.15E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	3.92E-05	9.80E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	4.03E-05	4.03E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	3.36E-05	3.36E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	NA	9.52E-05	9.52E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	5.60E-06	5.60E-08	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	1.23E-05	1.23E-07	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	2.02E-05	2.02E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	9.30E-05	9.30E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	7.39E-05	7.39E-07	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	1.00E-02	NA	1.93E-04	1.93E-06	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	1.12E-05	1.12E-07	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	2.46E-05	2.46E-07	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	3.92E-05	3.92E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	4.03E-05	4.03E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	3.36E-05	3.36E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	9.52E-05	9.52E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	5.60E-06	5.60E-08	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	1.23E-05	1.23E-07	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	2.02E-05	2.02E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	9.30E-05	9.30E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	7.39E-05	7.39E-07	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	1.93E-04	1.93E-06	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	1.12E-05	1.12E-07	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	2.46E-05	2.46E-07	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	3.92E-05	3.92E-07	3.40E+03	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	4.03E-05	1.01E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	3.36E-05	8.40E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	9.52E-05	2.38E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	5.60E-06	1.40E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	1.23E-05	3.08E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	2.02E-05	5.05E-06	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	9.30E-05	2.33E-05	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	7.39E-05	1.85E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	1.93E-04	4.83E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	1.12E-05	2.80E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	2.46E-05	6.15E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	3.92E-05	9.80E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	4.03E-05	1.01E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	3.36E-05	8.40E-06	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	9.52E-05	2.38E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	5.60E-06	1.40E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	1.23E-05	3.08E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	2.02E-05	5.05E-06	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	9.30E-05	2.33E-05	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	7.39E-05	1.85E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	1.93E-04	4.83E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	1.12E-05	2.80E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	2.46E-05	6.15E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	3.92E-05	9.80E-06	4.15E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.45E-06	2.59E-02	1.00E-03	4.40E+02	2.79E-08	1.50E+01	5.38E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.45E-06	2.58E-02	1.00E-03	4.40E+02	2.78E-08	1.50E+01	5.39E+08
Typical	Aerial	Forested	Plane	Swimmer-child	2.45E-06	2.66E-02	1.00E-03	4.40E+02	2.87E-08	1.50E+01	5.23E+08
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.45E-06	2.54E-02	1.00E-03	4.40E+02	2.74E-08	1.50E+01	5.47E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.45E-06	2.55E-02	1.00E-03	4.40E+02	2.75E-08	1.50E+01	5.45E+08
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.45E-06	2.56E-02	1.00E-03	4.40E+02	2.76E-08	1.50E+01	5.43E+08
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.45E-06	5.19E-02	1.00E-03	4.40E+02	5.60E-08	1.50E+01	2.68E+08
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.45E-06	5.17E-02	1.00E-03	4.40E+02	5.57E-08	1.50E+01	2.69E+08
Max	Aerial	Forested	Plane	Swimmer-child	2.45E-06	5.32E-02	1.00E-03	4.40E+02	5.74E-08	1.50E+01	2.62E+08
Max	Aerial	Forested	Helicopter	Swimmer-child	2.45E-06	5.09E-02	1.00E-03	4.40E+02	5.49E-08	1.50E+01	2.73E+08
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.45E-06	5.11E-02	1.00E-03	4.40E+02	5.51E-08	1.50E+01	2.72E+08
Max	Ground	Not applicable	High Boom	Swimmer-child	2.45E-06	5.13E-02	1.00E-03	4.40E+02	5.53E-08	1.50E+01	2.71E+08
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.45E-06	2.59E-02	1.00E-03	2.26E+02	1.44E-08	1.50E+01	1.04E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.45E-06	2.58E-02	1.00E-03	2.26E+02	1.43E-08	1.50E+01	1.05E+09
Typical	Aerial	Forested	Plane	Swimmer-adult	2.45E-06	2.66E-02	1.00E-03	2.26E+02	1.48E-08	1.50E+01	1.02E+09
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.45E-06	2.54E-02	1.00E-03	2.26E+02	1.41E-08	1.50E+01	1.06E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.45E-06	2.55E-02	1.00E-03	2.26E+02	1.42E-08	1.50E+01	1.06E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.45E-06	2.56E-02	1.00E-03	2.26E+02	1.42E-08	1.50E+01	1.05E+09
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.45E-06	5.19E-02	1.00E-03	2.26E+02	2.88E-08	1.50E+01	5.21E+08
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.45E-06	5.17E-02	1.00E-03	2.26E+02	2.87E-08	1.50E+01	5.23E+08
Max	Aerial	Forested	Plane	Swimmer-adult	2.45E-06	5.32E-02	1.00E-03	2.26E+02	2.95E-08	1.50E+01	5.08E+08
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.45E-06	5.09E-02	1.00E-03	2.26E+02	2.82E-08	1.50E+01	5.31E+08
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.45E-06	5.11E-02	1.00E-03	2.26E+02	2.83E-08	1.50E+01	5.29E+08
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.45E-06	5.13E-02	1.00E-03	2.26E+02	2.84E-08	1.50E+01	5.27E+08
Typical	Aerial	Non-Forested	Plane	N.American-child	2.45E-06	2.59E-02	1.00E-03	1.14E+03	7.26E-08	1.50E+01	2.07E+08
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.45E-06	2.58E-02	1.00E-03	1.14E+03	7.23E-08	1.50E+01	2.07E+08
Typical	Aerial	Forested	Plane	N.American-child	2.45E-06	2.66E-02	1.00E-03	1.14E+03	7.45E-08	1.50E+01	2.01E+08
Typical	Aerial	Forested	Helicopter	N.American-child	2.45E-06	2.54E-02	1.00E-03	1.14E+03	7.13E-08	1.50E+01	2.10E+08
Typical	Ground	Not applicable	Low Boom	N.American-child	2.45E-06	2.55E-02	1.00E-03	1.14E+03	7.16E-08	1.50E+01	2.10E+08
Typical	Ground	Not applicable	High Boom	N.American-child	2.45E-06	2.56E-02	1.00E-03	1.14E+03	7.19E-08	1.50E+01	2.09E+08
Max	Aerial	Non-Forested	Plane	N.American-child	2.45E-06	5.19E-02	1.00E-03	1.14E+03	1.46E-07	1.50E+01	1.03E+08
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.45E-06	5.17E-02	1.00E-03	1.14E+03	1.45E-07	1.50E+01	1.04E+08
Max	Aerial	Forested	Plane	N.American-child	2.45E-06	5.32E-02	1.00E-03	1.14E+03	1.49E-07	1.50E+01	1.01E+08
Max	Aerial	Forested	Helicopter	N.American-child	2.45E-06	5.09E-02	1.00E-03	1.14E+03	1.43E-07	1.50E+01	1.05E+08
Max	Ground	Not applicable	Low Boom	N.American-child	2.45E-06	5.11E-02	1.00E-03	1.14E+03	1.43E-07	1.50E+01	1.05E+08
Max	Ground	Not applicable	High Boom	N.American-child	2.45E-06	5.13E-02	1.00E-03	1.14E+03	1.44E-07	1.50E+01	1.04E+08

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.45E-06	2.59E-02	1.00E-03	5.89E+02	3.73E-08	1.50E+01	4.02E+08
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.45E-06	2.58E-02	1.00E-03	5.89E+02	3.72E-08	1.50E+01	4.03E+08
Typical	Aerial	Forested	Plane	N.American-adult	2.45E-06	2.66E-02	1.00E-03	5.89E+02	3.84E-08	1.50E+01	3.91E+08
Typical	Aerial	Forested	Helicopter	N.American-adult	2.45E-06	2.54E-02	1.00E-03	5.89E+02	3.67E-08	1.50E+01	4.09E+08
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.45E-06	2.55E-02	1.00E-03	5.89E+02	3.68E-08	1.50E+01	4.07E+08
Typical	Ground	Not applicable	High Boom	N.American-adult	2.45E-06	2.56E-02	1.00E-03	5.89E+02	3.70E-08	1.50E+01	4.06E+08
Max	Aerial	Non-Forested	Plane	N.American-adult	2.45E-06	5.19E-02	1.00E-03	5.89E+02	7.49E-08	1.50E+01	2.00E+08
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.45E-06	5.17E-02	1.00E-03	5.89E+02	7.46E-08	1.50E+01	2.01E+08
Max	Aerial	Forested	Plane	N.American-adult	2.45E-06	5.32E-02	1.00E-03	5.89E+02	7.67E-08	1.50E+01	1.95E+08
Max	Aerial	Forested	Helicopter	N.American-adult	2.45E-06	5.09E-02	1.00E-03	5.89E+02	7.34E-08	1.50E+01	2.04E+08
Max	Ground	Not applicable	Low Boom	N.American-adult	2.45E-06	5.11E-02	1.00E-03	5.89E+02	7.37E-08	1.50E+01	2.04E+08
Max	Ground	Not applicable	High Boom	N.American-adult	2.45E-06	5.13E-02	1.00E-03	5.89E+02	7.40E-08	1.50E+01	2.03E+08

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.59E-02	8.00E-03	2.07E-04	1.50E+01	7.24E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.58E-02	8.00E-03	2.07E-04	1.50E+01	7.26E+04
Typical	Aerial	Forested	Plane	Swimmer-child	2.66E-02	8.00E-03	2.13E-04	1.50E+01	7.05E+04
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.54E-02	8.00E-03	2.04E-04	1.50E+01	7.37E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.55E-02	8.00E-03	2.04E-04	1.50E+01	7.34E+04
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.56E-02	8.00E-03	2.05E-04	1.50E+01	7.31E+04
Max	Aerial	Non-Forested	Plane	Swimmer-child	5.19E-02	8.00E-03	4.16E-04	1.50E+01	3.61E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	5.17E-02	8.00E-03	4.14E-04	1.50E+01	3.63E+04
Max	Aerial	Forested	Plane	Swimmer-child	5.32E-02	8.00E-03	4.26E-04	1.50E+01	3.52E+04
Max	Aerial	Forested	Helicopter	Swimmer-child	5.09E-02	8.00E-03	4.07E-04	1.50E+01	3.68E+04
Max	Ground	Not applicable	Low Boom	Swimmer-child	5.11E-02	8.00E-03	4.09E-04	1.50E+01	3.67E+04
Max	Ground	Not applicable	High Boom	Swimmer-child	5.13E-02	8.00E-03	4.10E-04	1.50E+01	3.66E+04
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.59E-02	8.93E-04	2.31E-05	1.50E+01	6.49E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.58E-02	8.93E-04	2.31E-05	1.50E+01	6.51E+05
Typical	Aerial	Forested	Plane	Swimmer-adult	2.66E-02	8.93E-04	2.38E-05	1.50E+01	6.31E+05
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.54E-02	8.93E-04	2.27E-05	1.50E+01	6.60E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.55E-02	8.93E-04	2.28E-05	1.50E+01	6.57E+05
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.56E-02	8.93E-04	2.29E-05	1.50E+01	6.55E+05
Max	Aerial	Non-Forested	Plane	Swimmer-adult	5.19E-02	8.93E-04	4.64E-05	1.50E+01	3.23E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	5.17E-02	8.93E-04	4.62E-05	1.50E+01	3.25E+05
Max	Aerial	Forested	Plane	Swimmer-adult	5.32E-02	8.93E-04	4.75E-05	1.50E+01	3.16E+05
Max	Aerial	Forested	Helicopter	Swimmer-adult	5.09E-02	8.93E-04	4.55E-05	1.50E+01	3.30E+05
Max	Ground	Not applicable	Low Boom	Swimmer-adult	5.11E-02	8.93E-04	4.56E-05	1.50E+01	3.29E+05
Max	Ground	Not applicable	High Boom	Swimmer-adult	5.13E-02	8.93E-04	4.58E-05	1.50E+01	3.27E+05

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.59E-02	2.52E-02	6.51E-04	1.50E-01	0.43%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.58E-02	2.52E-02	6.49E-04	1.50E-01	0.43%
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.66E-02	2.52E-02	6.69E-04	1.50E-01	0.45%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.54E-02	2.52E-02	6.40E-04	1.50E-01	0.43%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.55E-02	2.52E-02	6.43E-04	1.50E-01	0.43%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.56E-02	2.52E-02	6.45E-04	1.50E-01	0.43%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	5.19E-02	2.52E-02	1.31E-03	1.50E-01	0.87%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	5.17E-02	2.52E-02	1.30E-03	1.50E-01	0.87%
Max	Aerial	Forested	Plane	Hiker/Hunter	5.32E-02	2.52E-02	1.34E-03	1.50E-01	0.9%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	5.09E-02	2.52E-02	1.28E-03	1.50E-01	0.85%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	5.11E-02	2.52E-02	1.29E-03	1.50E-01	0.86%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	5.13E-02	2.52E-02	1.29E-03	1.50E-01	0.86%
Typical	Aerial	Non-Forested	Plane	Berry - child	2.59E-02	6.67E-02	1.73E-03	1.50E-01	1.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.58E-02	6.67E-02	1.72E-03	1.50E-01	1.1%
Typical	Aerial	Forested	Plane	Berry - child	2.66E-02	6.67E-02	1.77E-03	1.50E-01	1.2%
Typical	Aerial	Forested	Helicopter	Berry - child	2.54E-02	6.67E-02	1.70E-03	1.50E-01	1.1%
Typical	Ground	Not applicable	Low Boom	Berry - child	2.55E-02	6.67E-02	1.70E-03	1.50E-01	1.1%
Typical	Ground	Not applicable	High Boom	Berry - child	2.56E-02	6.67E-02	1.71E-03	1.50E-01	1.1%
Max	Aerial	Non-Forested	Plane	Berry - child	5.19E-02	6.67E-02	3.46E-03	1.50E-01	2.3%
Max	Aerial	Non-Forested	Helicopter	Berry - child	5.17E-02	6.67E-02	3.45E-03	1.50E-01	2.3%
Max	Aerial	Forested	Plane	Berry - child	5.32E-02	6.67E-02	3.55E-03	1.50E-01	2.4%
Max	Aerial	Forested	Helicopter	Berry - child	5.09E-02	6.67E-02	3.39E-03	1.50E-01	2.3%
Max	Ground	Not applicable	Low Boom	Berry - child	5.11E-02	6.67E-02	3.41E-03	1.50E-01	2.3%
Max	Ground	Not applicable	High Boom	Berry - child	5.13E-02	6.67E-02	3.42E-03	1.50E-01	2.3%
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.59E-02	2.52E-02	6.51E-04	1.50E-01	0.43%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.58E-02	2.52E-02	6.49E-04	1.50E-01	0.43%
Typical	Aerial	Forested	Plane	Berry - adult	2.66E-02	2.52E-02	6.69E-04	1.50E-01	0.45%
Typical	Aerial	Forested	Helicopter	Berry - adult	2.54E-02	2.52E-02	6.40E-04	1.50E-01	0.43%
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.55E-02	2.52E-02	6.43E-04	1.50E-01	0.43%
Typical	Ground	Not applicable	High Boom	Berry - adult	2.56E-02	2.52E-02	6.45E-04	1.50E-01	0.43%
Max	Aerial	Non-Forested	Plane	Berry - adult	5.19E-02	2.52E-02	1.31E-03	1.50E-01	0.87%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	5.17E-02	2.52E-02	1.30E-03	1.50E-01	0.87%
Max	Aerial	Forested	Plane	Berry - adult	5.32E-02	2.52E-02	1.34E-03	1.50E-01	0.9%
Max	Aerial	Forested	Helicopter	Berry - adult	5.09E-02	2.52E-02	1.28E-03	1.50E-01	0.85%
Max	Ground	Not applicable	Low Boom	Berry - adult	5.11E-02	2.52E-02	1.29E-03	1.50E-01	0.86%
Max	Ground	Not applicable	High Boom	Berry - adult	5.13E-02	2.52E-02	1.29E-03	1.50E-01	0.86%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	2.59E-02	2.52E-02	6.51E-04	1.50E-01	0.43%
Typical	Aerial	Non-Forested	Helicopter	Angler	2.58E-02	2.52E-02	6.49E-04	1.50E-01	0.43%
Typical	Aerial	Forested	Plane	Angler	2.66E-02	2.52E-02	6.69E-04	1.50E-01	0.45%
Typical	Aerial	Forested	Helicopter	Angler	2.54E-02	2.52E-02	6.40E-04	1.50E-01	0.43%
Typical	Ground	Not applicable	Low Boom	Angler	2.55E-02	2.52E-02	6.43E-04	1.50E-01	0.43%
Typical	Ground	Not applicable	High Boom	Angler	2.56E-02	2.52E-02	6.45E-04	1.50E-01	0.43%
Max	Aerial	Non-Forested	Plane	Angler	5.19E-02	2.52E-02	1.31E-03	1.50E-01	0.87%
Max	Aerial	Non-Forested	Helicopter	Angler	5.17E-02	2.52E-02	1.30E-03	1.50E-01	0.87%
Max	Aerial	Forested	Plane	Angler	5.32E-02	2.52E-02	1.34E-03	1.50E-01	0.9%
Max	Aerial	Forested	Helicopter	Angler	5.09E-02	2.52E-02	1.28E-03	1.50E-01	0.85%
Max	Ground	Not applicable	Low Boom	Angler	5.11E-02	2.52E-02	1.29E-03	1.50E-01	0.86%
Max	Ground	Not applicable	High Boom	Angler	5.13E-02	2.52E-02	1.29E-03	1.50E-01	0.86%
Typical	Aerial	Non-Forested	Plane	N.American - child	2.59E-02	3.33E-02	8.63E-04	1.50E-01	0.58%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	2.58E-02	3.33E-02	8.60E-04	1.50E-01	0.57%
Typical	Aerial	Forested	Plane	N.American - child	2.66E-02	3.33E-02	8.87E-04	1.50E-01	0.59%
Typical	Aerial	Forested	Helicopter	N.American - child	2.54E-02	3.33E-02	8.48E-04	1.50E-01	0.57%
Typical	Ground	Not applicable	Low Boom	N.American - child	2.55E-02	3.33E-02	8.52E-04	1.50E-01	0.57%
Typical	Ground	Not applicable	High Boom	N.American - child	2.56E-02	3.33E-02	8.55E-04	1.50E-01	0.57%
Max	Aerial	Non-Forested	Plane	N.American - child	5.19E-02	3.33E-02	1.73E-03	1.50E-01	1.2%
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.17E-02	3.33E-02	1.72E-03	1.50E-01	1.1%
Max	Aerial	Forested	Plane	N.American - child	5.32E-02	3.33E-02	1.77E-03	1.50E-01	1.2%
Max	Aerial	Forested	Helicopter	N.American - child	5.09E-02	3.33E-02	1.70E-03	1.50E-01	1.1%
Max	Ground	Not applicable	Low Boom	N.American - child	5.11E-02	3.33E-02	1.70E-03	1.50E-01	1.1%
Max	Ground	Not applicable	High Boom	N.American - child	5.13E-02	3.33E-02	1.71E-03	1.50E-01	1.1%
Typical	Aerial	Non-Forested	Plane	N.American - adult	2.59E-02	1.26E-02	3.26E-04	1.50E-01	0.22%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	2.58E-02	1.26E-02	3.25E-04	1.50E-01	0.22%
Typical	Aerial	Forested	Plane	N.American - adult	2.66E-02	1.26E-02	3.35E-04	1.50E-01	0.22%
Typical	Aerial	Forested	Helicopter	N.American - adult	2.54E-02	1.26E-02	3.20E-04	1.50E-01	0.21%
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.55E-02	1.26E-02	3.21E-04	1.50E-01	0.21%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.56E-02	1.26E-02	3.23E-04	1.50E-01	0.22%
Max	Aerial	Non-Forested	Plane	N.American - adult	5.19E-02	1.26E-02	6.53E-04	1.50E-01	0.44%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.17E-02	1.26E-02	6.51E-04	1.50E-01	0.43%
Max	Aerial	Forested	Plane	N.American - adult	5.32E-02	1.26E-02	6.70E-04	1.50E-01	0.45%
Max	Aerial	Forested	Helicopter	N.American - adult	5.09E-02	1.26E-02	6.40E-04	1.50E-01	0.43%
Max	Ground	Not applicable	Low Boom	N.American - adult	5.11E-02	1.26E-02	6.43E-04	1.50E-01	0.43%
Max	Ground	Not applicable	High Boom	N.American - adult	5.13E-02	1.26E-02	6.45E-04	1.50E-01	0.43%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Fish
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	2.59E-02	1.00E+00	1.00E-06	7.67E+02	1.99E-05	1.50E-01	0.013%
Typical	Aerial	Non-Forested	Helicopter	Angler	2.58E-02	1.00E+00	1.00E-06	7.67E+02	1.98E-05	1.50E-01	0.013%
Typical	Aerial	Forested	Plane	Angler	2.66E-02	1.00E+00	1.00E-06	7.67E+02	2.04E-05	1.50E-01	0.014%
Typical	Aerial	Forested	Helicopter	Angler	2.54E-02	1.00E+00	1.00E-06	7.67E+02	1.95E-05	1.50E-01	0.013%
Typical	Ground	Not applicable	Low Boom	Angler	2.55E-02	1.00E+00	1.00E-06	7.67E+02	1.96E-05	1.50E-01	0.013%
Typical	Ground	Not applicable	High Boom	Angler	2.56E-02	1.00E+00	1.00E-06	7.67E+02	1.97E-05	1.50E-01	0.013%
Max	Aerial	Non-Forested	Plane	Angler	5.19E-02	1.00E+00	1.00E-06	7.67E+02	3.99E-05	1.50E-01	0.027%
Max	Aerial	Non-Forested	Helicopter	Angler	5.17E-02	1.00E+00	1.00E-06	7.67E+02	3.97E-05	1.50E-01	0.026%
Max	Aerial	Forested	Plane	Angler	5.32E-02	1.00E+00	1.00E-06	7.67E+02	4.08E-05	1.50E-01	0.027%
Max	Aerial	Forested	Helicopter	Angler	5.09E-02	1.00E+00	1.00E-06	7.67E+02	3.91E-05	1.50E-01	0.026%
Max	Ground	Not applicable	Low Boom	Angler	5.11E-02	1.00E+00	1.00E-06	7.67E+02	3.92E-05	1.50E-01	0.026%
Max	Ground	Not applicable	High Boom	Angler	5.13E-02	1.00E+00	1.00E-06	7.67E+02	3.94E-05	1.50E-01	0.026%
Typical	Aerial	Non-Forested	Plane	N.American - child	2.59E-02	1.00E+00	1.00E-06	1.11E+04	2.88E-04	1.50E-01	0.19%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	2.58E-02	1.00E+00	1.00E-06	1.11E+04	2.87E-04	1.50E-01	0.19%
Typical	Aerial	Forested	Plane	N.American - child	2.66E-02	1.00E+00	1.00E-06	1.11E+04	2.96E-04	1.50E-01	0.20%
Typical	Aerial	Forested	Helicopter	N.American - child	2.54E-02	1.00E+00	1.00E-06	1.11E+04	2.83E-04	1.50E-01	0.19%
Typical	Ground	Not applicable	Low Boom	N.American - child	2.55E-02	1.00E+00	1.00E-06	1.11E+04	2.84E-04	1.50E-01	0.19%
Typical	Ground	Not applicable	High Boom	N.American - child	2.56E-02	1.00E+00	1.00E-06	1.11E+04	2.86E-04	1.50E-01	0.19%
Max	Aerial	Non-Forested	Plane	N.American - child	5.19E-02	1.00E+00	1.00E-06	1.11E+04	5.78E-04	1.50E-01	0.39%
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.17E-02	1.00E+00	1.00E-06	1.11E+04	5.76E-04	1.50E-01	0.38%
Max	Aerial	Forested	Plane	N.American - child	5.32E-02	1.00E+00	1.00E-06	1.11E+04	5.93E-04	1.50E-01	0.40%
Max	Aerial	Forested	Helicopter	N.American - child	5.09E-02	1.00E+00	1.00E-06	1.11E+04	5.67E-04	1.50E-01	0.38%
Max	Ground	Not applicable	Low Boom	N.American - child	5.11E-02	1.00E+00	1.00E-06	1.11E+04	5.69E-04	1.50E-01	0.38%
Max	Ground	Not applicable	High Boom	N.American - child	5.13E-02	1.00E+00	1.00E-06	1.11E+04	5.71E-04	1.50E-01	0.38%
Typical	Aerial	Non-Forested	Plane	N.American - adult	2.59E-02	1.00E+00	1.00E-06	1.11E+04	2.88E-04	1.50E-01	0.19%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	2.58E-02	1.00E+00	1.00E-06	1.11E+04	2.87E-04	1.50E-01	0.19%
Typical	Aerial	Forested	Plane	N.American - adult	2.66E-02	1.00E+00	1.00E-06	1.11E+04	2.96E-04	1.50E-01	0.20%
Typical	Aerial	Forested	Helicopter	N.American - adult	2.54E-02	1.00E+00	1.00E-06	1.11E+04	2.83E-04	1.50E-01	0.19%
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.55E-02	1.00E+00	1.00E-06	1.11E+04	2.84E-04	1.50E-01	0.19%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.56E-02	1.00E+00	1.00E-06	1.11E+04	2.86E-04	1.50E-01	0.19%
Max	Aerial	Non-Forested	Plane	N.American - adult	5.19E-02	1.00E+00	1.00E-06	1.11E+04	5.78E-04	1.50E-01	0.39%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.17E-02	1.00E+00	1.00E-06	1.11E+04	5.76E-04	1.50E-01	0.38%
Max	Aerial	Forested	Plane	N.American - adult	5.32E-02	1.00E+00	1.00E-06	1.11E+04	5.93E-04	1.50E-01	0.40%
Max	Aerial	Forested	Helicopter	N.American - adult	5.09E-02	1.00E+00	1.00E-06	1.11E+04	5.67E-04	1.50E-01	0.38%
Max	Ground	Not applicable	Low Boom	N.American - adult	5.11E-02	1.00E+00	1.00E-06	1.11E+04	5.69E-04	1.50E-01	0.38%
Max	Ground	Not applicable	High Boom	N.American - adult	5.13E-02	1.00E+00	1.00E-06	1.11E+04	5.71E-04	1.50E-01	0.38%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	1.50E-01	0.107%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	1.50E-01	0.090%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	9.52E-05	4.00E+00	3.81E-04	1.50E-01	0.254%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	1.50E-01	0.0149%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.23E-05	4.00E+00	4.92E-05	1.50E-01	0.0328%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	1.50E-01	0.054%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	1.50E-01	0.248%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	1.50E-01	0.197%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.93E-04	4.00E+00	7.72E-04	1.50E-01	0.51%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	1.12E-05	4.00E+00	4.48E-05	1.50E-01	0.0299%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	1.50E-01	0.066%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	1.50E-01	0.105%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	1.50E-01	0.108%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	1.50E-01	0.090%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	9.52E-05	4.03E+00	3.83E-04	1.50E-01	0.255%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	1.50E-01	0.0150%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.23E-05	4.03E+00	4.95E-05	1.50E-01	0.0330%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	1.50E-01	0.054%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	1.50E-01	0.250%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	1.50E-01	0.198%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.93E-04	4.03E+00	7.77E-04	1.50E-01	0.52%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	1.12E-05	4.03E+00	4.51E-05	1.50E-01	0.0301%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	1.50E-01	0.066%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	1.50E-01	0.105%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	1.50E-01	0.107%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	1.50E-01	0.090%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	9.52E-05	4.00E+00	3.81E-04	1.50E-01	0.254%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	1.50E-01	0.0149%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.23E-05	4.00E+00	4.92E-05	1.50E-01	0.0328%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	1.50E-01	0.054%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	1.50E-01	0.248%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	1.50E-01	0.197%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.93E-04	4.00E+00	7.72E-04	1.50E-01	0.51%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	1.12E-05	4.00E+00	4.48E-05	1.50E-01	0.0299%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	1.50E-01	0.066%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	1.50E-01	0.105%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	1.50E-01	0.108%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	1.50E-01	0.090%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	9.52E-05	4.03E+00	3.83E-04	1.50E-01	0.255%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	1.50E-01	0.0150%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.23E-05	4.03E+00	4.95E-05	1.50E-01	0.0330%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	1.50E-01	0.054%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	1.50E-01	0.250%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	1.50E-01	0.198%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.93E-04	4.03E+00	7.77E-04	1.50E-01	0.52%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	1.12E-05	4.03E+00	4.51E-05	1.50E-01	0.0301%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	1.50E-01	0.066%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	1.50E-01	0.105%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Intermediate-Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.43%	--	--	2.30E+02
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.43%	--	--	2.31E+02
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.45%	--	--	2.24E+02
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.43%	--	--	2.34E+02
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.43%	--	--	2.33E+02
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.43%	--	--	2.32E+02
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.87%	--	--	1.15E+02
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.87%	--	--	1.15E+02
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.9%	--	--	1.12E+02
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.85%	--	--	1.17E+02
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.86%	--	--	1.17E+02
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.86%	--	--	1.16E+02
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	1.2%	0.107%	--	7.95E+01
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	1.1%	0.090%	--	8.08E+01
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	1.2%	0.254%	--	6.96E+01
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	1.1%	0.0149%	--	8.73E+01
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	1.1%	0.0328%	--	8.56E+01
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	1.1%	0.054%	--	8.38E+01
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	2.3%	0.248%	--	3.91E+01
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	2.3%	0.197%	--	4.01E+01
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	2.4%	0.51%	--	3.47E+01
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	2.3%	0.0299%	--	4.36E+01
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	2.3%	0.066%	--	4.28E+01
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	2.3%	0.105%	--	4.19E+01
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.43%	0.108%	--	1.84E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.43%	0.090%	--	1.91E+02
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.45%	0.255%	--	1.43E+02
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.43%	0.0150%	--	2.26E+02
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.43%	0.0330%	--	2.17E+02
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.43%	0.054%	--	2.06E+02
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.87%	0.250%	--	8.92E+01
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.87%	0.198%	--	9.38E+01
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.9%	0.52%	--	7.09E+01
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.85%	0.0301%	--	1.13E+02
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.86%	0.066%	--	1.08E+02
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.86%	0.105%	--	1.04E+02

Calculation: Aggregate Risk Index - Intermediate-Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.43%	--	0.013%	2.23E+02
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.43%	--	0.013%	2.24E+02
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.45%	--	0.014%	2.17E+02
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.43%	--	0.013%	2.27E+02
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.43%	--	0.013%	2.27E+02
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.43%	--	0.013%	2.26E+02
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.87%	--	0.027%	1.11E+02
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.87%	--	0.026%	1.12E+02
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.9%	--	0.027%	1.09E+02
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.85%	--	0.026%	1.14E+02
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.86%	--	0.026%	1.13E+02
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.86%	--	0.026%	1.13E+02
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC

Calculation: Aggregate Risk Index - Intermediate-Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	2.07E+08	--	0.58%	0.107%	0.19%	1.14E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	2.07E+08	--	0.57%	0.090%	0.19%	1.17E+02
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	2.01E+08	--	0.59%	0.254%	0.20%	9.59E+01
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	2.10E+08	--	0.57%	0.0149%	0.19%	1.30E+02
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	2.10E+08	--	0.57%	0.0328%	0.19%	1.27E+02
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	2.09E+08	--	0.57%	0.054%	0.19%	1.23E+02
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.03E+08	--	1.2%	0.248%	0.39%	5.59E+01
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.04E+08	--	1.1%	0.197%	0.38%	5.78E+01
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.01E+08	--	1.2%	0.51%	0.40%	4.78E+01
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.05E+08	--	1.1%	0.0299%	0.38%	6.50E+01
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	1.05E+08	--	1.1%	0.066%	0.38%	6.33E+01
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	1.04E+08	--	1.1%	0.105%	0.38%	6.15E+01
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	4.02E+08	--	0.22%	0.108%	0.19%	1.93E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	4.03E+08	--	0.22%	0.090%	0.19%	2.01E+02
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	3.91E+08	--	0.22%	0.255%	0.20%	1.48E+02
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	4.09E+08	--	0.21%	0.0150%	0.19%	2.40E+02
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	4.07E+08	--	0.21%	0.0330%	0.19%	2.29E+02
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	4.06E+08	--	0.22%	0.054%	0.19%	2.18E+02
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	2.00E+08	--	0.44%	0.250%	0.39%	9.34E+01
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	2.01E+08	--	0.43%	0.198%	0.38%	9.84E+01
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.95E+08	--	0.45%	0.52%	0.40%	7.36E+01
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	2.04E+08	--	0.43%	0.0301%	0.38%	1.20E+02
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	2.04E+08	--	0.43%	0.066%	0.38%	1.14E+02
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	2.03E+08	--	0.43%	0.105%	0.38%	1.09E+02

Calculation: Aggregate Risk Index - Intermediate-Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	5.38E+08	7.24E+04	--	--	--	7.24E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	5.39E+08	7.26E+04	--	--	--	7.26E+02
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	5.23E+08	7.05E+04	--	--	--	7.05E+02
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	5.47E+08	7.37E+04	--	--	--	7.37E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	5.45E+08	7.34E+04	--	--	--	7.34E+02
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	5.43E+08	7.31E+04	--	--	--	7.31E+02
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	2.68E+08	3.61E+04	--	--	--	3.61E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.69E+08	3.63E+04	--	--	--	3.62E+02
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	2.62E+08	3.52E+04	--	--	--	3.52E+02
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.73E+08	3.68E+04	--	--	--	3.68E+02
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	2.72E+08	3.67E+04	--	--	--	3.67E+02
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	2.71E+08	3.66E+04	--	--	--	3.65E+02
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	1.04E+09	6.49E+05	--	--	--	6.48E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	1.05E+09	6.51E+05	--	--	--	6.50E+03
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	1.02E+09	6.31E+05	--	--	--	6.31E+03
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	1.06E+09	6.60E+05	--	--	--	6.60E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	1.06E+09	6.57E+05	--	--	--	6.57E+03
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	1.05E+09	6.55E+05	--	--	--	6.54E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.21E+08	3.23E+05	--	--	--	3.23E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.23E+08	3.25E+05	--	--	--	3.25E+03
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.08E+08	3.16E+05	--	--	--	3.15E+03
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.31E+08	3.30E+05	--	--	--	3.30E+03
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	5.29E+08	3.29E+05	--	--	--	3.29E+03
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	5.27E+08	3.27E+05	--	--	--	3.27E+03

--Receptor not exposed via this pathway.
NC - Not Calculated (No dose-response value).
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Intermediate-term Exposure

Herbicide: **Clopyralid**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a)						Maximum Application Rate Scenario ARIs (a)					
AgDrift Scenario: **Land Type (b):** **Equipment (c):**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**
Hiker/Hunter (Adult)	230	231	224	234	233	232	115	115	112	117	117	116
Berry Picker (Child)	79	81	70	87	86	84	39	40	35	44	43	42
Berry Picker (Adult)	184	191	143	226	217	206	89	94	71	113	108	104
Angler (Adult)	223	224	217	227	227	226	111	112	109	114	113	113
Residential (Child)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Residential (Adult)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Native American (Child)	114	117	96	130	127	123	56	58	48	65	63	62
Native American (Adult)	193	201	148	240	229	218	93	98	74	120	114	109
Swimmer (Child)	724	726	705	737	734	731	361	362	352	368	367	365
Swimmer (Adult)	6,482	6,502	6,309	6,596	6,571	6,544	3,232	3,245	3,153	3,298	3,285	3,272

ARI - Aggregate Risk Index. Values less than one represent a level of concern. ARI does not include dermal exposure due to low toxicity (see Table 3-1).

NC - Not Calculated. No dose-response values available for dermal exposure due to low toxicity (see Table 3-1).

(a) - Application rates are shown on Table 4-1 and are the same for each program.

(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.

(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	NA	3.92E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	NA	4.03E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	NA	9.52E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	NA	5.60E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	NA	1.23E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	NA	1.93E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	NA	1.12E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	NA	3.92E-05	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	NA	3.92E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	NA	4.03E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	NA	9.52E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	NA	1.23E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	NA	1.93E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	NA	1.12E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	NA	3.92E-05	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	NA	4.03E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	NA	3.36E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	NA	9.52E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	NA	5.60E-06	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	NA	1.23E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	NA	1.93E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	NA	1.12E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	NA	4.03E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	3.36E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	NA	9.52E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	NA	5.60E-06	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	NA	1.23E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	NA	1.93E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	NA	1.12E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	NA	3.92E-05	7.17E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	4.03E-05	1.01E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	3.36E-05	8.40E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	9.52E-05	2.38E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	1.23E-05	3.08E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	2.02E-05	5.05E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	9.30E-05	2.33E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	7.39E-05	1.85E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	1.93E-04	4.83E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	1.12E-05	2.80E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	2.46E-05	6.15E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	3.92E-05	9.80E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	4.03E-05	1.01E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	3.36E-05	8.40E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	9.52E-05	2.38E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	5.60E-06	1.40E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	1.23E-05	3.08E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	2.02E-05	5.05E-06	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	9.30E-05	2.33E-05	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	7.39E-05	1.85E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	1.93E-04	4.83E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	1.12E-05	2.80E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	2.46E-05	6.15E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	3.92E-05	9.80E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	4.03E-05	1.01E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	3.36E-05	8.40E-06	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	9.52E-05	2.38E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	5.60E-06	1.40E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	1.23E-05	3.08E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	2.02E-05	5.05E-06	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	9.30E-05	2.33E-05	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	7.39E-05	1.85E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	1.93E-04	4.83E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	1.12E-05	2.80E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	2.46E-05	6.15E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	3.92E-05	9.80E-06	3.46E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	4.03E-05	1.01E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	3.36E-05	8.40E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	2.50E-01	NA	9.52E-05	2.38E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	5.60E-06	1.40E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	1.23E-05	3.08E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	2.02E-05	5.05E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	9.30E-05	2.33E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	7.39E-05	1.85E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	2.50E-01	NA	1.93E-04	4.83E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	1.12E-05	2.80E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	2.46E-05	6.15E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	3.92E-05	9.80E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	4.03E-05	4.03E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	3.36E-05	3.36E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	NA	9.52E-05	9.52E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	5.60E-06	5.60E-08	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	1.23E-05	1.23E-07	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	2.02E-05	2.02E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	9.30E-05	9.30E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	7.39E-05	7.39E-07	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	1.00E-02	NA	1.93E-04	1.93E-06	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	1.12E-05	1.12E-07	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	2.46E-05	2.46E-07	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	3.92E-05	3.92E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	4.03E-05	4.03E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	3.36E-05	3.36E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	9.52E-05	9.52E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	5.60E-06	5.60E-08	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	1.23E-05	1.23E-07	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	2.02E-05	2.02E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	9.30E-05	9.30E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	7.39E-05	7.39E-07	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	1.93E-04	1.93E-06	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	1.12E-05	1.12E-07	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	2.46E-05	2.46E-07	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	3.92E-05	3.92E-07	3.40E+03	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	4.03E-05	1.01E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	3.36E-05	8.40E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	9.52E-05	2.38E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	5.60E-06	1.40E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	1.23E-05	3.08E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	2.02E-05	5.05E-06	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	9.30E-05	2.33E-05	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	7.39E-05	1.85E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	1.93E-04	4.83E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	1.12E-05	2.80E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	2.46E-05	6.15E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	3.92E-05	9.80E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	4.03E-05	1.01E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	3.36E-05	8.40E-06	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	9.52E-05	2.38E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	5.60E-06	1.40E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	1.23E-05	3.08E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	2.02E-05	5.05E-06	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	9.30E-05	2.33E-05	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	7.39E-05	1.85E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	1.93E-04	4.83E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	1.12E-05	2.80E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	2.46E-05	6.15E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	3.92E-05	9.80E-06	4.15E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.45E-06	4.63E-03	1.00E-03	4.40E+02	4.99E-09	1.50E+01	3.01E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.45E-06	4.55E-03	1.00E-03	4.40E+02	4.90E-09	1.50E+01	3.06E+09
Typical	Aerial	Forested	Plane	Swimmer-child	2.45E-06	5.34E-03	1.00E-03	4.40E+02	5.75E-09	1.50E+01	2.61E+09
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.45E-06	4.18E-03	1.00E-03	4.40E+02	4.51E-09	1.50E+01	3.33E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.45E-06	4.28E-03	1.00E-03	4.40E+02	4.61E-09	1.50E+01	3.25E+09
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.45E-06	4.38E-03	1.00E-03	4.40E+02	4.72E-09	1.50E+01	3.18E+09
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.45E-06	9.41E-03	1.00E-03	4.40E+02	1.01E-08	1.50E+01	1.48E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.45E-06	9.19E-03	1.00E-03	4.40E+02	9.90E-09	1.50E+01	1.52E+09
Max	Aerial	Forested	Plane	Swimmer-child	2.45E-06	1.07E-02	1.00E-03	4.40E+02	1.15E-08	1.50E+01	1.30E+09
Max	Aerial	Forested	Helicopter	Swimmer-child	2.45E-06	8.37E-03	1.00E-03	4.40E+02	9.02E-09	1.50E+01	1.66E+09
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.45E-06	8.56E-03	1.00E-03	4.40E+02	9.22E-09	1.50E+01	1.63E+09
Max	Ground	Not applicable	High Boom	Swimmer-child	2.45E-06	8.76E-03	1.00E-03	4.40E+02	9.44E-09	1.50E+01	1.59E+09
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.45E-06	4.63E-03	1.00E-03	2.26E+02	2.57E-09	1.50E+01	5.85E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.45E-06	4.55E-03	1.00E-03	2.26E+02	2.52E-09	1.50E+01	5.95E+09
Typical	Aerial	Forested	Plane	Swimmer-adult	2.45E-06	5.34E-03	1.00E-03	2.26E+02	2.96E-09	1.50E+01	5.07E+09
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.45E-06	4.18E-03	1.00E-03	2.26E+02	2.32E-09	1.50E+01	6.47E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.45E-06	4.28E-03	1.00E-03	2.26E+02	2.37E-09	1.50E+01	6.32E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.45E-06	4.38E-03	1.00E-03	2.26E+02	2.43E-09	1.50E+01	6.17E+09
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.45E-06	9.41E-03	1.00E-03	2.26E+02	5.22E-09	1.50E+01	2.88E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.45E-06	9.19E-03	1.00E-03	2.26E+02	5.09E-09	1.50E+01	2.94E+09
Max	Aerial	Forested	Plane	Swimmer-adult	2.45E-06	1.07E-02	1.00E-03	2.26E+02	5.93E-09	1.50E+01	2.53E+09
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.45E-06	8.37E-03	1.00E-03	2.26E+02	4.64E-09	1.50E+01	3.23E+09
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.45E-06	8.56E-03	1.00E-03	2.26E+02	4.74E-09	1.50E+01	3.16E+09
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.45E-06	8.76E-03	1.00E-03	2.26E+02	4.86E-09	1.50E+01	3.09E+09
Typical	Aerial	Non-Forested	Plane	N.American-child	2.45E-06	4.63E-03	1.00E-03	1.14E+03	1.30E-08	1.50E+01	1.16E+09
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.45E-06	4.55E-03	1.00E-03	1.14E+03	1.27E-08	1.50E+01	1.18E+09
Typical	Aerial	Forested	Plane	N.American-child	2.45E-06	5.34E-03	1.00E-03	1.14E+03	1.50E-08	1.50E+01	1.00E+09
Typical	Aerial	Forested	Helicopter	N.American-child	2.45E-06	4.18E-03	1.00E-03	1.14E+03	1.17E-08	1.50E+01	1.28E+09
Typical	Ground	Not applicable	Low Boom	N.American-child	2.45E-06	4.28E-03	1.00E-03	1.14E+03	1.20E-08	1.50E+01	1.25E+09
Typical	Ground	Not applicable	High Boom	N.American-child	2.45E-06	4.38E-03	1.00E-03	1.14E+03	1.23E-08	1.50E+01	1.22E+09
Max	Aerial	Non-Forested	Plane	N.American-child	2.45E-06	9.41E-03	1.00E-03	1.14E+03	2.64E-08	1.50E+01	5.69E+08
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.45E-06	9.19E-03	1.00E-03	1.14E+03	2.57E-08	1.50E+01	5.83E+08
Max	Aerial	Forested	Plane	N.American-child	2.45E-06	1.07E-02	1.00E-03	1.14E+03	3.00E-08	1.50E+01	5.01E+08
Max	Aerial	Forested	Helicopter	N.American-child	2.45E-06	8.37E-03	1.00E-03	1.14E+03	2.34E-08	1.50E+01	6.40E+08
Max	Ground	Not applicable	Low Boom	N.American-child	2.45E-06	8.56E-03	1.00E-03	1.14E+03	2.40E-08	1.50E+01	6.26E+08
Max	Ground	Not applicable	High Boom	N.American-child	2.45E-06	8.76E-03	1.00E-03	1.14E+03	2.45E-08	1.50E+01	6.11E+08

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.45E-06	4.63E-03	1.00E-03	5.89E+02	6.67E-09	1.50E+01	2.25E+09
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.45E-06	4.55E-03	1.00E-03	5.89E+02	6.55E-09	1.50E+01	2.29E+09
Typical	Aerial	Forested	Plane	N.American-adult	2.45E-06	5.34E-03	1.00E-03	5.89E+02	7.70E-09	1.50E+01	1.95E+09
Typical	Aerial	Forested	Helicopter	N.American-adult	2.45E-06	4.18E-03	1.00E-03	5.89E+02	6.03E-09	1.50E+01	2.49E+09
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.45E-06	4.28E-03	1.00E-03	5.89E+02	6.17E-09	1.50E+01	2.43E+09
Typical	Ground	Not applicable	High Boom	N.American-adult	2.45E-06	4.38E-03	1.00E-03	5.89E+02	6.32E-09	1.50E+01	2.37E+09
Max	Aerial	Non-Forested	Plane	N.American-adult	2.45E-06	9.41E-03	1.00E-03	5.89E+02	1.36E-08	1.50E+01	1.11E+09
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.45E-06	9.19E-03	1.00E-03	5.89E+02	1.32E-08	1.50E+01	1.13E+09
Max	Aerial	Forested	Plane	N.American-adult	2.45E-06	1.07E-02	1.00E-03	5.89E+02	1.54E-08	1.50E+01	9.73E+08
Max	Aerial	Forested	Helicopter	N.American-adult	2.45E-06	8.37E-03	1.00E-03	5.89E+02	1.21E-08	1.50E+01	1.24E+09
Max	Ground	Not applicable	Low Boom	N.American-adult	2.45E-06	8.56E-03	1.00E-03	5.89E+02	1.23E-08	1.50E+01	1.22E+09
Max	Ground	Not applicable	High Boom	N.American-adult	2.45E-06	8.76E-03	1.00E-03	5.89E+02	1.26E-08	1.50E+01	1.19E+09

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	4.63E-03	8.00E-03	3.70E-05	1.50E+01	4.05E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	4.55E-03	8.00E-03	3.64E-05	1.50E+01	4.12E+05
Typical	Aerial	Forested	Plane	Swimmer-child	5.34E-03	8.00E-03	4.27E-05	1.50E+01	3.51E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	4.18E-03	8.00E-03	3.35E-05	1.50E+01	4.48E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	4.28E-03	8.00E-03	3.42E-05	1.50E+01	4.38E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	4.38E-03	8.00E-03	3.51E-05	1.50E+01	4.28E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	9.41E-03	8.00E-03	7.52E-05	1.50E+01	1.99E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	9.19E-03	8.00E-03	7.35E-05	1.50E+01	2.04E+05
Max	Aerial	Forested	Plane	Swimmer-child	1.07E-02	8.00E-03	8.56E-05	1.50E+01	1.75E+05
Max	Aerial	Forested	Helicopter	Swimmer-child	8.37E-03	8.00E-03	6.69E-05	1.50E+01	2.24E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	8.56E-03	8.00E-03	6.84E-05	1.50E+01	2.19E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	8.76E-03	8.00E-03	7.01E-05	1.50E+01	2.14E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	4.63E-03	8.93E-04	4.13E-06	1.50E+01	3.63E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	4.55E-03	8.93E-04	4.06E-06	1.50E+01	3.69E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	5.34E-03	8.93E-04	4.77E-06	1.50E+01	3.15E+06
Typical	Aerial	Forested	Helicopter	Swimmer-adult	4.18E-03	8.93E-04	3.73E-06	1.50E+01	4.02E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	4.28E-03	8.93E-04	3.82E-06	1.50E+01	3.93E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	4.38E-03	8.93E-04	3.91E-06	1.50E+01	3.83E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	9.41E-03	8.93E-04	8.40E-06	1.50E+01	1.79E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	9.19E-03	8.93E-04	8.20E-06	1.50E+01	1.83E+06
Max	Aerial	Forested	Plane	Swimmer-adult	1.07E-02	8.93E-04	9.55E-06	1.50E+01	1.57E+06
Max	Aerial	Forested	Helicopter	Swimmer-adult	8.37E-03	8.93E-04	7.47E-06	1.50E+01	2.01E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	8.56E-03	8.93E-04	7.64E-06	1.50E+01	1.96E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	8.76E-03	8.93E-04	7.83E-06	1.50E+01	1.92E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	4.63E-03	2.52E-02	1.16E-04	1.50E-01	0.078%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	4.55E-03	2.52E-02	1.14E-04	1.50E-01	0.076%
Typical	Aerial	Forested	Plane	Hiker/Hunter	5.34E-03	2.52E-02	1.34E-04	1.50E-01	0.09%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	4.18E-03	2.52E-02	1.05E-04	1.50E-01	0.070%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	4.28E-03	2.52E-02	1.08E-04	1.50E-01	0.072%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	4.38E-03	2.52E-02	1.10E-04	1.50E-01	0.073%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	9.41E-03	2.52E-02	2.37E-04	1.50E-01	0.16%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	9.19E-03	2.52E-02	2.31E-04	1.50E-01	0.15%
Max	Aerial	Forested	Plane	Hiker/Hunter	1.07E-02	2.52E-02	2.69E-04	1.50E-01	0.18%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	8.37E-03	2.52E-02	2.10E-04	1.50E-01	0.14%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	8.56E-03	2.52E-02	2.15E-04	1.50E-01	0.14%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	8.76E-03	2.52E-02	2.20E-04	1.50E-01	0.15%
Typical	Aerial	Non-Forested	Plane	Berry - child	4.63E-03	6.67E-02	3.09E-04	1.50E-01	0.21%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	4.55E-03	6.67E-02	3.03E-04	1.50E-01	0.20%
Typical	Aerial	Forested	Plane	Berry - child	5.34E-03	6.67E-02	3.56E-04	1.50E-01	0.24%
Typical	Aerial	Forested	Helicopter	Berry - child	4.18E-03	6.67E-02	2.79E-04	1.50E-01	0.19%
Typical	Ground	Not applicable	Low Boom	Berry - child	4.28E-03	6.67E-02	2.85E-04	1.50E-01	0.19%
Typical	Ground	Not applicable	High Boom	Berry - child	4.38E-03	6.67E-02	2.92E-04	1.50E-01	0.19%
Max	Aerial	Non-Forested	Plane	Berry - child	9.41E-03	6.67E-02	6.27E-04	1.50E-01	0.42%
Max	Aerial	Non-Forested	Helicopter	Berry - child	9.19E-03	6.67E-02	6.12E-04	1.50E-01	0.41%
Max	Aerial	Forested	Plane	Berry - child	1.07E-02	6.67E-02	7.13E-04	1.50E-01	0.48%
Max	Aerial	Forested	Helicopter	Berry - child	8.37E-03	6.67E-02	5.58E-04	1.50E-01	0.37%
Max	Ground	Not applicable	Low Boom	Berry - child	8.56E-03	6.67E-02	5.70E-04	1.50E-01	0.38%
Max	Ground	Not applicable	High Boom	Berry - child	8.76E-03	6.67E-02	5.84E-04	1.50E-01	0.39%
Typical	Aerial	Non-Forested	Plane	Berry - adult	4.63E-03	2.52E-02	1.16E-04	1.50E-01	0.078%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	4.55E-03	2.52E-02	1.14E-04	1.50E-01	0.076%
Typical	Aerial	Forested	Plane	Berry - adult	5.34E-03	2.52E-02	1.34E-04	1.50E-01	0.09%
Typical	Aerial	Forested	Helicopter	Berry - adult	4.18E-03	2.52E-02	1.05E-04	1.50E-01	0.070%
Typical	Ground	Not applicable	Low Boom	Berry - adult	4.28E-03	2.52E-02	1.08E-04	1.50E-01	0.072%
Typical	Ground	Not applicable	High Boom	Berry - adult	4.38E-03	2.52E-02	1.10E-04	1.50E-01	0.073%
Max	Aerial	Non-Forested	Plane	Berry - adult	9.41E-03	2.52E-02	2.37E-04	1.50E-01	0.16%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	9.19E-03	2.52E-02	2.31E-04	1.50E-01	0.15%
Max	Aerial	Forested	Plane	Berry - adult	1.07E-02	2.52E-02	2.69E-04	1.50E-01	0.18%
Max	Aerial	Forested	Helicopter	Berry - adult	8.37E-03	2.52E-02	2.10E-04	1.50E-01	0.14%
Max	Ground	Not applicable	Low Boom	Berry - adult	8.56E-03	2.52E-02	2.15E-04	1.50E-01	0.14%
Max	Ground	Not applicable	High Boom	Berry - adult	8.76E-03	2.52E-02	2.20E-04	1.50E-01	0.15%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	4.63E-03	2.52E-02	1.16E-04	1.50E-01	0.078%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.55E-03	2.52E-02	1.14E-04	1.50E-01	0.076%
Typical	Aerial	Forested	Plane	Angler	5.34E-03	2.52E-02	1.34E-04	1.50E-01	0.09%
Typical	Aerial	Forested	Helicopter	Angler	4.18E-03	2.52E-02	1.05E-04	1.50E-01	0.070%
Typical	Ground	Not applicable	Low Boom	Angler	4.28E-03	2.52E-02	1.08E-04	1.50E-01	0.072%
Typical	Ground	Not applicable	High Boom	Angler	4.38E-03	2.52E-02	1.10E-04	1.50E-01	0.073%
Max	Aerial	Non-Forested	Plane	Angler	9.41E-03	2.52E-02	2.37E-04	1.50E-01	0.16%
Max	Aerial	Non-Forested	Helicopter	Angler	9.19E-03	2.52E-02	2.31E-04	1.50E-01	0.15%
Max	Aerial	Forested	Plane	Angler	1.07E-02	2.52E-02	2.69E-04	1.50E-01	0.18%
Max	Aerial	Forested	Helicopter	Angler	8.37E-03	2.52E-02	2.10E-04	1.50E-01	0.14%
Max	Ground	Not applicable	Low Boom	Angler	8.56E-03	2.52E-02	2.15E-04	1.50E-01	0.14%
Max	Ground	Not applicable	High Boom	Angler	8.76E-03	2.52E-02	2.20E-04	1.50E-01	0.15%
Typical	Aerial	Non-Forested	Plane	N.American - child	4.63E-03	3.33E-02	1.54E-04	1.50E-01	0.10%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.55E-03	3.33E-02	1.52E-04	1.50E-01	0.10%
Typical	Aerial	Forested	Plane	N.American - child	5.34E-03	3.33E-02	1.78E-04	1.50E-01	0.12%
Typical	Aerial	Forested	Helicopter	N.American - child	4.18E-03	3.33E-02	1.39E-04	1.50E-01	0.093%
Typical	Ground	Not applicable	Low Boom	N.American - child	4.28E-03	3.33E-02	1.43E-04	1.50E-01	0.10%
Typical	Ground	Not applicable	High Boom	N.American - child	4.38E-03	3.33E-02	1.46E-04	1.50E-01	0.10%
Max	Aerial	Non-Forested	Plane	N.American - child	9.41E-03	3.33E-02	3.14E-04	1.50E-01	0.21%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.19E-03	3.33E-02	3.06E-04	1.50E-01	0.20%
Max	Aerial	Forested	Plane	N.American - child	1.07E-02	3.33E-02	3.57E-04	1.50E-01	0.24%
Max	Aerial	Forested	Helicopter	N.American - child	8.37E-03	3.33E-02	2.79E-04	1.50E-01	0.19%
Max	Ground	Not applicable	Low Boom	N.American - child	8.56E-03	3.33E-02	2.85E-04	1.50E-01	0.19%
Max	Ground	Not applicable	High Boom	N.American - child	8.76E-03	3.33E-02	2.92E-04	1.50E-01	0.19%
Typical	Aerial	Non-Forested	Plane	N.American - adult	4.63E-03	1.26E-02	5.82E-05	1.50E-01	0.039%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.55E-03	1.26E-02	5.72E-05	1.50E-01	0.038%
Typical	Aerial	Forested	Plane	N.American - adult	5.34E-03	1.26E-02	6.71E-05	1.50E-01	0.045%
Typical	Aerial	Forested	Helicopter	N.American - adult	4.18E-03	1.26E-02	5.26E-05	1.50E-01	0.035%
Typical	Ground	Not applicable	Low Boom	N.American - adult	4.28E-03	1.26E-02	5.38E-05	1.50E-01	0.036%
Typical	Ground	Not applicable	High Boom	N.American - adult	4.38E-03	1.26E-02	5.51E-05	1.50E-01	0.037%
Max	Aerial	Non-Forested	Plane	N.American - adult	9.41E-03	1.26E-02	1.18E-04	1.50E-01	0.079%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.19E-03	1.26E-02	1.16E-04	1.50E-01	0.077%
Max	Aerial	Forested	Plane	N.American - adult	1.07E-02	1.26E-02	1.35E-04	1.50E-01	0.09%
Max	Aerial	Forested	Helicopter	N.American - adult	8.37E-03	1.26E-02	1.05E-04	1.50E-01	0.070%
Max	Ground	Not applicable	Low Boom	N.American - adult	8.56E-03	1.26E-02	1.08E-04	1.50E-01	0.072%
Max	Ground	Not applicable	High Boom	N.American - adult	8.76E-03	1.26E-02	1.10E-04	1.50E-01	0.073%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Fish
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	4.63E-03	1.00E+00	1.00E-06	7.67E+02	3.55E-06	1.50E-01	0.0024%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.55E-03	1.00E+00	1.00E-06	7.67E+02	3.49E-06	1.50E-01	0.0023%
Typical	Aerial	Forested	Plane	Angler	5.34E-03	1.00E+00	1.00E-06	7.67E+02	4.10E-06	1.50E-01	0.0027%
Typical	Aerial	Forested	Helicopter	Angler	4.18E-03	1.00E+00	1.00E-06	7.67E+02	3.21E-06	1.50E-01	0.0021%
Typical	Ground	Not applicable	Low Boom	Angler	4.28E-03	1.00E+00	1.00E-06	7.67E+02	3.28E-06	1.50E-01	0.0022%
Typical	Ground	Not applicable	High Boom	Angler	4.38E-03	1.00E+00	1.00E-06	7.67E+02	3.36E-06	1.50E-01	0.0022%
Max	Aerial	Non-Forested	Plane	Angler	9.41E-03	1.00E+00	1.00E-06	7.67E+02	7.22E-06	1.50E-01	0.0048%
Max	Aerial	Non-Forested	Helicopter	Angler	9.19E-03	1.00E+00	1.00E-06	7.67E+02	7.05E-06	1.50E-01	0.0047%
Max	Aerial	Forested	Plane	Angler	1.07E-02	1.00E+00	1.00E-06	7.67E+02	8.21E-06	1.50E-01	0.0055%
Max	Aerial	Forested	Helicopter	Angler	8.37E-03	1.00E+00	1.00E-06	7.67E+02	6.42E-06	1.50E-01	0.0043%
Max	Ground	Not applicable	Low Boom	Angler	8.56E-03	1.00E+00	1.00E-06	7.67E+02	6.56E-06	1.50E-01	0.0044%
Max	Ground	Not applicable	High Boom	Angler	8.76E-03	1.00E+00	1.00E-06	7.67E+02	6.72E-06	1.50E-01	0.0045%
Typical	Aerial	Non-Forested	Plane	N.American - child	4.63E-03	1.00E+00	1.00E-06	1.11E+04	5.15E-05	1.50E-01	0.034%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.55E-03	1.00E+00	1.00E-06	1.11E+04	5.06E-05	1.50E-01	0.034%
Typical	Aerial	Forested	Plane	N.American - child	5.34E-03	1.00E+00	1.00E-06	1.11E+04	5.94E-05	1.50E-01	0.040%
Typical	Aerial	Forested	Helicopter	N.American - child	4.18E-03	1.00E+00	1.00E-06	1.11E+04	4.66E-05	1.50E-01	0.031%
Typical	Ground	Not applicable	Low Boom	N.American - child	4.28E-03	1.00E+00	1.00E-06	1.11E+04	4.76E-05	1.50E-01	0.032%
Typical	Ground	Not applicable	High Boom	N.American - child	4.38E-03	1.00E+00	1.00E-06	1.11E+04	4.88E-05	1.50E-01	0.033%
Max	Aerial	Non-Forested	Plane	N.American - child	9.41E-03	1.00E+00	1.00E-06	1.11E+04	1.05E-04	1.50E-01	0.070%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.19E-03	1.00E+00	1.00E-06	1.11E+04	1.02E-04	1.50E-01	0.068%
Max	Aerial	Forested	Plane	N.American - child	1.07E-02	1.00E+00	1.00E-06	1.11E+04	1.19E-04	1.50E-01	0.079%
Max	Aerial	Forested	Helicopter	N.American - child	8.37E-03	1.00E+00	1.00E-06	1.11E+04	9.32E-05	1.50E-01	0.062%
Max	Ground	Not applicable	Low Boom	N.American - child	8.56E-03	1.00E+00	1.00E-06	1.11E+04	9.53E-05	1.50E-01	0.064%
Max	Ground	Not applicable	High Boom	N.American - child	8.76E-03	1.00E+00	1.00E-06	1.11E+04	9.76E-05	1.50E-01	0.065%
Typical	Aerial	Non-Forested	Plane	N.American - adult	4.63E-03	1.00E+00	1.00E-06	1.11E+04	5.15E-05	1.50E-01	0.034%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.55E-03	1.00E+00	1.00E-06	1.11E+04	5.06E-05	1.50E-01	0.034%
Typical	Aerial	Forested	Plane	N.American - adult	5.34E-03	1.00E+00	1.00E-06	1.11E+04	5.94E-05	1.50E-01	0.040%
Typical	Aerial	Forested	Helicopter	N.American - adult	4.18E-03	1.00E+00	1.00E-06	1.11E+04	4.65E-05	1.50E-01	0.031%
Typical	Ground	Not applicable	Low Boom	N.American - adult	4.28E-03	1.00E+00	1.00E-06	1.11E+04	4.76E-05	1.50E-01	0.032%
Typical	Ground	Not applicable	High Boom	N.American - adult	4.38E-03	1.00E+00	1.00E-06	1.11E+04	4.88E-05	1.50E-01	0.033%
Max	Aerial	Non-Forested	Plane	N.American - adult	9.41E-03	1.00E+00	1.00E-06	1.11E+04	1.05E-04	1.50E-01	0.070%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.19E-03	1.00E+00	1.00E-06	1.11E+04	1.02E-04	1.50E-01	0.068%
Max	Aerial	Forested	Plane	N.American - adult	1.07E-02	1.00E+00	1.00E-06	1.11E+04	1.19E-04	1.50E-01	0.079%
Max	Aerial	Forested	Helicopter	N.American - adult	8.37E-03	1.00E+00	1.00E-06	1.11E+04	9.31E-05	1.50E-01	0.062%
Max	Ground	Not applicable	Low Boom	N.American - adult	8.56E-03	1.00E+00	1.00E-06	1.11E+04	9.52E-05	1.50E-01	0.063%
Max	Ground	Not applicable	High Boom	N.American - adult	8.76E-03	1.00E+00	1.00E-06	1.11E+04	9.75E-05	1.50E-01	0.065%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	1.50E-01	0.107%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	1.50E-01	0.090%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	9.52E-05	4.00E+00	3.81E-04	1.50E-01	0.254%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	1.50E-01	0.0149%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.23E-05	4.00E+00	4.92E-05	1.50E-01	0.033%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	1.50E-01	0.054%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	1.50E-01	0.248%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	1.50E-01	0.197%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.93E-04	4.00E+00	7.72E-04	1.50E-01	0.51%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	1.12E-05	4.00E+00	4.48E-05	1.50E-01	0.0299%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	1.50E-01	0.066%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	1.50E-01	0.105%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	1.50E-01	0.108%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	1.50E-01	0.090%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	9.52E-05	4.03E+00	3.83E-04	1.50E-01	0.255%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	1.50E-01	0.0150%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.23E-05	4.03E+00	4.95E-05	1.50E-01	0.0330%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	1.50E-01	0.054%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	1.50E-01	0.250%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	1.50E-01	0.198%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.93E-04	4.03E+00	7.77E-04	1.50E-01	0.52%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	1.12E-05	4.03E+00	4.51E-05	1.50E-01	0.0301%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	1.50E-01	0.066%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	1.50E-01	0.105%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	1.50E-01	0.107%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	1.50E-01	0.090%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	9.52E-05	4.00E+00	3.81E-04	1.50E-01	0.254%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	1.50E-01	0.0149%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.23E-05	4.00E+00	4.92E-05	1.50E-01	0.0328%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	1.50E-01	0.054%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	1.50E-01	0.248%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	1.50E-01	0.197%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.93E-04	4.00E+00	7.72E-04	1.50E-01	0.51%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	1.12E-05	4.00E+00	4.48E-05	1.50E-01	0.0299%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	1.50E-01	0.066%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	1.50E-01	0.105%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	1.50E-01	0.108%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	1.50E-01	0.090%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	9.52E-05	4.03E+00	3.83E-04	1.50E-01	0.255%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	1.50E-01	0.0150%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.23E-05	4.03E+00	4.95E-05	1.50E-01	0.0330%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	1.50E-01	0.054%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	1.50E-01	0.250%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	1.50E-01	0.198%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.93E-04	4.03E+00	7.77E-04	1.50E-01	0.52%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	1.12E-05	4.03E+00	4.51E-05	1.50E-01	0.0301%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	1.50E-01	0.066%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	1.50E-01	0.105%

a.e. - acid equivalent
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Long-Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.078%	--	--	1.29E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.076%	--	--	1.31E+03
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.12E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.070%	--	--	1.43E+03
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.072%	--	--	1.39E+03
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.073%	--	--	1.36E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.16%	--	--	6.34E+02
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.15%	--	--	6.49E+02
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.18%	--	--	5.58E+02
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.14%	--	--	7.13E+02
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.14%	--	--	6.97E+02
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.15%	--	--	6.80E+02
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.21%	0.107%	--	3.19E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.20%	0.090%	--	3.43E+02
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.24%	0.254%	--	2.04E+02
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.19%	0.0149%	--	4.98E+02
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.19%	0.0328%	--	4.49E+02
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.19%	0.054%	--	4.02E+02
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.42%	0.248%	--	1.50E+02
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.41%	0.197%	--	1.65E+02
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.48%	0.51%	--	1.01E+02
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.37%	0.0299%	--	2.49E+02
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.38%	0.066%	--	2.24E+02
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.39%	0.105%	--	2.02E+02
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.078%	0.108%	--	5.38E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.076%	0.090%	--	6.01E+02
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.255%	--	2.90E+02
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.070%	0.0150%	--	1.17E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.072%	0.0330%	--	9.55E+02
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.073%	0.054%	--	7.83E+02
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.16%	0.250%	--	2.46E+02
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.15%	0.198%	--	2.84E+02
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.18%	0.52%	--	1.43E+02
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.14%	0.0301%	--	5.87E+02
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.14%	0.066%	--	4.77E+02
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.15%	0.105%	--	3.97E+02

Calculation: Aggregate Risk Index - Long-Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.078%	--	0.0024%	1.25E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.076%	--	0.0023%	1.27E+03
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.0027%	1.08E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.070%	--	0.0021%	1.38E+03
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.072%	--	0.0022%	1.35E+03
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.073%	--	0.0022%	1.32E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.16%	--	0.0048%	6.15E+02
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.15%	--	0.0047%	6.30E+02
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.18%	--	0.0055%	5.41E+02
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.14%	--	0.0043%	6.92E+02
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.14%	--	0.0044%	6.76E+02
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.15%	--	0.0045%	6.60E+02
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC

Calculation: Aggregate Risk Index - Long-Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.16E+09	--	0.10%	0.107%	0.034%	4.09E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.18E+09	--	0.10%	0.090%	0.034%	4.46E+02
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.00E+09	--	0.12%	0.254%	0.040%	2.43E+02
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.28E+09	--	0.093%	0.0149%	0.031%	7.20E+02
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	1.25E+09	--	0.10%	0.0328%	0.032%	6.27E+02
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	1.22E+09	--	0.10%	0.054%	0.033%	5.44E+02
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	5.69E+08	--	0.21%	0.248%	0.070%	1.90E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	5.83E+08	--	0.20%	0.197%	0.068%	2.13E+02
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	5.01E+08	--	0.24%	0.51%	0.079%	1.20E+02
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	6.40E+08	--	0.19%	0.0299%	0.062%	3.60E+02
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	6.26E+08	--	0.19%	0.066%	0.064%	3.13E+02
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	6.11E+08	--	0.19%	0.105%	0.065%	2.75E+02
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	2.25E+09	--	0.039%	0.108%	0.034%	5.52E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	2.29E+09	--	0.038%	0.090%	0.034%	6.17E+02
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.95E+09	--	0.045%	0.255%	0.040%	2.94E+02
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	2.49E+09	--	0.035%	0.0150%	0.031%	1.23E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	2.43E+09	--	0.036%	0.0330%	0.032%	9.94E+02
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	2.37E+09	--	0.037%	0.054%	0.033%	8.10E+02
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.11E+09	--	0.079%	0.250%	0.070%	2.51E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.13E+09	--	0.077%	0.198%	0.068%	2.91E+02
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	9.73E+08	--	0.09%	0.52%	0.079%	1.46E+02
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.24E+09	--	0.070%	0.0301%	0.062%	6.16E+02
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.22E+09	--	0.072%	0.066%	0.063%	4.97E+02
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.19E+09	--	0.073%	0.105%	0.065%	4.10E+02

Calculation: Aggregate Risk Index - Long-Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	3.01E+09	4.05E+05	--	--	--	4.05E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	3.06E+09	4.12E+05	--	--	--	4.12E+03
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	2.61E+09	3.51E+05	--	--	--	3.51E+03
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	3.33E+09	4.48E+05	--	--	--	4.48E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	3.25E+09	4.38E+05	--	--	--	4.38E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	3.18E+09	4.28E+05	--	--	--	4.28E+03
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	1.48E+09	1.99E+05	--	--	--	1.99E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.52E+09	2.04E+05	--	--	--	2.04E+03
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	1.30E+09	1.75E+05	--	--	--	1.75E+03
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.66E+09	2.24E+05	--	--	--	2.24E+03
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	1.63E+09	2.19E+05	--	--	--	2.19E+03
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	1.59E+09	2.14E+05	--	--	--	2.14E+03
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.85E+09	3.63E+06	--	--	--	3.63E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.95E+09	3.69E+06	--	--	--	3.69E+04
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.07E+09	3.15E+06	--	--	--	3.14E+04
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	6.47E+09	4.02E+06	--	--	--	4.01E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	6.32E+09	3.93E+06	--	--	--	3.92E+04
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	6.17E+09	3.83E+06	--	--	--	3.83E+04
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	2.88E+09	1.79E+06	--	--	--	1.78E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	2.94E+09	1.83E+06	--	--	--	1.83E+04
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	2.53E+09	1.57E+06	--	--	--	1.57E+04
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	3.23E+09	2.01E+06	--	--	--	2.01E+04
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	3.16E+09	1.96E+06	--	--	--	1.96E+04
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	3.09E+09	1.92E+06	--	--	--	1.92E+04

--Receptor not exposed via this pathway.
NC - Not Calculated (No dose-response value).
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.
(b) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Long-term Exposure

Herbicide: **Clopyralid**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a)						Maximum Application Rate Scenario ARIs (a)					
AgDrift Scenario: **Land Type (b):** **Equipment (c):**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**
Hiker/Hunter (Adult)	1,288	1,311	1,117	1,426	1,394	1,361	634	649	558	713	697	680
Berry Picker (Child)	319	343	204	498	449	402	150	165	101	249	224	202
Berry Picker (Adult)	538	601	290	1,174	955	783	246	284	143	587	477	397
Angler (Adult)	1,250	1,273	1,084	1,384	1,353	1,321	615	630	541	692	676	660
Residential (Child)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Residential (Adult)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Native American (Child)	409	446	243	720	627	544	190	213	120	360	313	275
Native American (Adult)	552	617	294	1,233	994	810	251	291	146	616	497	410
Swimmer (Child)	4,051	4,123	3,512	4,483	4,383	4,279	1,993	2,041	1,753	2,241	2,191	2,140
Swimmer (Adult)	36,273	36,919	31,448	40,141	39,241	38,310	17,847	18,271	15,695	20,061	19,618	19,157

ARI - Aggregate Risk Index. Values less than one represent a level of concern. ARI does not include dermal exposure due to low toxicity (see Table 3-1).
NC - Not Calculated. No dose-response values available for dermal exposure due to low toxicity (see Table 3-1).
(a) - Application rates are shown on Table 4-1 and are the same for each program.
(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.
(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	NA	3.92E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	NA	4.14E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	NA	3.47E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	NA	1.87E-04	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	NA	1.46E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	NA	1.34E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	NA	3.77E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	NA	2.91E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	NA	3.92E-05	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	NA	3.92E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	NA	4.14E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	NA	3.47E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	NA	1.87E-04	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	NA	1.46E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	NA	1.34E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	NA	3.77E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	NA	2.91E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	NA	3.92E-05	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	NA	4.14E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	NA	3.47E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	NA	1.87E-04	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	NA	1.46E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	NA	1.34E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	NA	3.77E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	NA	2.91E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	NA	3.92E-05	7.17E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	4.14E-05	1.04E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	3.47E-05	8.68E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	1.87E-04	4.68E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	1.46E-05	3.64E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	1.34E-05	3.35E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	2.02E-05	5.05E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	9.30E-05	2.33E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	7.39E-05	1.85E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	3.77E-04	9.44E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	2.91E-05	7.28E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	2.46E-05	6.15E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	3.92E-05	9.80E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	4.14E-05	1.04E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	3.47E-05	8.68E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	1.87E-04	4.68E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	1.46E-05	3.64E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	1.34E-05	3.35E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	2.02E-05	5.05E-06	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	9.30E-05	2.33E-05	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	7.39E-05	1.85E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	3.77E-04	9.44E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	2.91E-05	7.28E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	2.46E-05	6.15E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	3.92E-05	9.80E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	4.14E-05	1.04E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	3.47E-05	8.68E-06	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	1.87E-04	4.68E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	1.46E-05	3.64E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	1.34E-05	3.35E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	2.02E-05	5.05E-06	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	9.30E-05	2.33E-05	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	7.39E-05	1.85E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	3.77E-04	9.44E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	2.91E-05	7.28E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	2.46E-05	6.15E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	3.92E-05	9.80E-06	3.46E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	4.14E-05	1.04E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	3.47E-05	8.68E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	2.50E-01	NA	1.87E-04	4.68E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	1.46E-05	3.64E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	1.34E-05	3.35E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	2.02E-05	5.05E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	9.30E-05	2.33E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	7.39E-05	1.85E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	2.50E-01	NA	3.77E-04	9.44E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	2.91E-05	7.28E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	2.46E-05	6.15E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	3.92E-05	9.80E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	4.14E-05	4.14E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	3.47E-05	3.47E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	NA	1.87E-04	1.87E-06	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	1.46E-05	1.46E-07	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	1.34E-05	1.34E-07	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	2.02E-05	2.02E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	9.30E-05	9.30E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	7.39E-05	7.39E-07	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	1.00E-02	NA	3.77E-04	3.77E-06	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	2.91E-05	2.91E-07	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	2.46E-05	2.46E-07	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	3.92E-05	3.92E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	4.14E-05	4.14E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	3.47E-05	3.47E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	1.87E-04	1.87E-06	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	1.46E-05	1.46E-07	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	1.34E-05	1.34E-07	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	2.02E-05	2.02E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	9.30E-05	9.30E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	7.39E-05	7.39E-07	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	3.77E-04	3.77E-06	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	2.91E-05	2.91E-07	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	2.46E-05	2.46E-07	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	3.92E-05	3.92E-07	3.40E+03	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	4.14E-05	1.04E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	3.47E-05	8.68E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	1.87E-04	4.68E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	1.46E-05	3.64E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	1.34E-05	3.35E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	2.02E-05	5.05E-06	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	9.30E-05	2.33E-05	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	7.39E-05	1.85E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	3.77E-04	9.44E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	2.91E-05	7.28E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	2.46E-05	6.15E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	3.92E-05	9.80E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	4.14E-05	1.04E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	3.47E-05	8.68E-06	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	1.87E-04	4.68E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	1.46E-05	3.64E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	1.34E-05	3.35E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	2.02E-05	5.05E-06	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	9.30E-05	2.33E-05	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	7.39E-05	1.85E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	3.77E-04	9.44E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	2.91E-05	7.28E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	2.46E-05	6.15E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	3.92E-05	9.80E-06	4.15E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.95E-02	1.86E-02	1.00E-03	4.40E+02	2.41E-04	1.00E+02	4.15E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.95E-02	2.13E-02	1.00E-03	4.40E+02	2.76E-04	1.00E+02	3.62E+05
Typical	Aerial	Forested	Plane	Swimmer-child	2.95E-02	1.93E-02	1.00E-03	4.40E+02	2.51E-04	1.00E+02	3.99E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.95E-02	1.81E-02	1.00E-03	4.40E+02	2.35E-04	1.00E+02	4.26E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.95E-02	1.82E-02	1.00E-03	4.40E+02	2.36E-04	1.00E+02	4.23E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.95E-02	1.83E-02	1.00E-03	4.40E+02	2.38E-04	1.00E+02	4.21E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.95E-02	3.58E-02	1.00E-03	4.40E+02	4.65E-04	1.00E+02	2.15E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.95E-02	3.56E-02	1.00E-03	4.40E+02	4.63E-04	1.00E+02	2.16E+05
Max	Aerial	Forested	Plane	Swimmer-child	2.95E-02	3.72E-02	1.00E-03	4.40E+02	4.83E-04	1.00E+02	2.07E+05
Max	Aerial	Forested	Helicopter	Swimmer-child	2.95E-02	3.48E-02	1.00E-03	4.40E+02	4.52E-04	1.00E+02	2.21E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.95E-02	3.50E-02	1.00E-03	4.40E+02	4.54E-04	1.00E+02	2.20E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	2.95E-02	3.52E-02	1.00E-03	4.40E+02	4.57E-04	1.00E+02	2.19E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.95E-02	1.86E-02	1.00E-03	2.26E+02	1.24E-04	1.00E+02	8.06E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.95E-02	2.13E-02	1.00E-03	2.26E+02	1.42E-04	1.00E+02	7.03E+05
Typical	Aerial	Forested	Plane	Swimmer-adult	2.95E-02	1.93E-02	1.00E-03	2.26E+02	1.29E-04	1.00E+02	7.76E+05
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.95E-02	1.81E-02	1.00E-03	2.26E+02	1.21E-04	1.00E+02	8.27E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.95E-02	1.82E-02	1.00E-03	2.26E+02	1.22E-04	1.00E+02	8.22E+05
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.95E-02	1.83E-02	1.00E-03	2.26E+02	1.22E-04	1.00E+02	8.18E+05
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.95E-02	3.58E-02	1.00E-03	2.26E+02	2.39E-04	1.00E+02	4.18E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.95E-02	3.56E-02	1.00E-03	2.26E+02	2.38E-04	1.00E+02	4.20E+05
Max	Aerial	Forested	Plane	Swimmer-adult	2.95E-02	3.72E-02	1.00E-03	2.26E+02	2.49E-04	1.00E+02	4.02E+05
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.95E-02	3.48E-02	1.00E-03	2.26E+02	2.33E-04	1.00E+02	4.30E+05
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.95E-02	3.50E-02	1.00E-03	2.26E+02	2.34E-04	1.00E+02	4.28E+05
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.95E-02	3.52E-02	1.00E-03	2.26E+02	2.35E-04	1.00E+02	4.25E+05
Typical	Aerial	Non-Forested	Plane	N.American-child	2.95E-02	1.86E-02	1.00E-03	1.14E+03	6.27E-04	1.00E+02	1.60E+05
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.95E-02	2.13E-02	1.00E-03	1.14E+03	7.19E-04	1.00E+02	1.39E+05
Typical	Aerial	Forested	Plane	N.American-child	2.95E-02	1.93E-02	1.00E-03	1.14E+03	6.51E-04	1.00E+02	1.54E+05
Typical	Aerial	Forested	Helicopter	N.American-child	2.95E-02	1.81E-02	1.00E-03	1.14E+03	6.11E-04	1.00E+02	1.64E+05
Typical	Ground	Not applicable	Low Boom	N.American-child	2.95E-02	1.82E-02	1.00E-03	1.14E+03	6.14E-04	1.00E+02	1.63E+05
Typical	Ground	Not applicable	High Boom	N.American-child	2.95E-02	1.83E-02	1.00E-03	1.14E+03	6.18E-04	1.00E+02	1.62E+05
Max	Aerial	Non-Forested	Plane	N.American-child	2.95E-02	3.58E-02	1.00E-03	1.14E+03	1.21E-03	1.00E+02	8.27E+04
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.95E-02	3.56E-02	1.00E-03	1.14E+03	1.20E-03	1.00E+02	8.31E+04
Max	Aerial	Forested	Plane	N.American-child	2.95E-02	3.72E-02	1.00E-03	1.14E+03	1.26E-03	1.00E+02	7.96E+04
Max	Aerial	Forested	Helicopter	N.American-child	2.95E-02	3.48E-02	1.00E-03	1.14E+03	1.18E-03	1.00E+02	8.51E+04
Max	Ground	Not applicable	Low Boom	N.American-child	2.95E-02	3.50E-02	1.00E-03	1.14E+03	1.18E-03	1.00E+02	8.46E+04
Max	Ground	Not applicable	High Boom	N.American-child	2.95E-02	3.52E-02	1.00E-03	1.14E+03	1.19E-03	1.00E+02	8.41E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.95E-02	1.86E-02	1.00E-03	5.89E+02	3.22E-04	1.00E+02	3.10E+05
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.95E-02	2.13E-02	1.00E-03	5.89E+02	3.70E-04	1.00E+02	2.70E+05
Typical	Aerial	Forested	Plane	N.American-adult	2.95E-02	1.93E-02	1.00E-03	5.89E+02	3.35E-04	1.00E+02	2.98E+05
Typical	Aerial	Forested	Helicopter	N.American-adult	2.95E-02	1.81E-02	1.00E-03	5.89E+02	3.14E-04	1.00E+02	3.18E+05
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.95E-02	1.82E-02	1.00E-03	5.89E+02	3.16E-04	1.00E+02	3.16E+05
Typical	Ground	Not applicable	High Boom	N.American-adult	2.95E-02	1.83E-02	1.00E-03	5.89E+02	3.18E-04	1.00E+02	3.14E+05
Max	Aerial	Non-Forested	Plane	N.American-adult	2.95E-02	3.58E-02	1.00E-03	5.89E+02	6.23E-04	1.00E+02	1.61E+05
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.95E-02	3.56E-02	1.00E-03	5.89E+02	6.19E-04	1.00E+02	1.62E+05
Max	Aerial	Forested	Plane	N.American-adult	2.95E-02	3.72E-02	1.00E-03	5.89E+02	6.47E-04	1.00E+02	1.55E+05
Max	Aerial	Forested	Helicopter	N.American-adult	2.95E-02	3.48E-02	1.00E-03	5.89E+02	6.05E-04	1.00E+02	1.65E+05
Max	Ground	Not applicable	Low Boom	N.American-adult	2.95E-02	3.50E-02	1.00E-03	5.89E+02	6.08E-04	1.00E+02	1.64E+05
Max	Ground	Not applicable	High Boom	N.American-adult	2.95E-02	3.52E-02	1.00E-03	5.89E+02	6.12E-04	1.00E+02	1.64E+05

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.86E-02	8.00E-03	1.48E-04	1.00E+02	6.74E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.13E-02	8.00E-03	1.70E-04	1.00E+02	5.87E+05
Typical	Aerial	Forested	Plane	Swimmer-child	1.93E-02	8.00E-03	1.54E-04	1.00E+02	6.48E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.81E-02	8.00E-03	1.45E-04	1.00E+02	6.91E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.82E-02	8.00E-03	1.46E-04	1.00E+02	6.87E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.83E-02	8.00E-03	1.46E-04	1.00E+02	6.83E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	3.58E-02	8.00E-03	2.87E-04	1.00E+02	3.49E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	3.56E-02	8.00E-03	2.85E-04	1.00E+02	3.51E+05
Max	Aerial	Forested	Plane	Swimmer-child	3.72E-02	8.00E-03	2.98E-04	1.00E+02	3.36E+05
Max	Aerial	Forested	Helicopter	Swimmer-child	3.48E-02	8.00E-03	2.78E-04	1.00E+02	3.59E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	3.50E-02	8.00E-03	2.80E-04	1.00E+02	3.57E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	3.52E-02	8.00E-03	2.82E-04	1.00E+02	3.55E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.86E-02	8.93E-04	1.66E-05	1.00E+02	6.03E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.13E-02	8.93E-04	1.90E-05	1.00E+02	5.26E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	1.93E-02	8.93E-04	1.72E-05	1.00E+02	5.80E+06
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.81E-02	8.93E-04	1.62E-05	1.00E+02	6.19E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.82E-02	8.93E-04	1.62E-05	1.00E+02	6.15E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.83E-02	8.93E-04	1.63E-05	1.00E+02	6.12E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	3.58E-02	8.93E-04	3.20E-05	1.00E+02	3.13E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	3.56E-02	8.93E-04	3.18E-05	1.00E+02	3.14E+06
Max	Aerial	Forested	Plane	Swimmer-adult	3.72E-02	8.93E-04	3.32E-05	1.00E+02	3.01E+06
Max	Aerial	Forested	Helicopter	Swimmer-adult	3.48E-02	8.93E-04	3.11E-05	1.00E+02	3.22E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	3.50E-02	8.93E-04	3.12E-05	1.00E+02	3.20E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	3.52E-02	8.93E-04	3.14E-05	1.00E+02	3.18E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.86E-02	2.52E-02	4.67E-04	1.00E+00	0.047%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.13E-02	2.52E-02	5.35E-04	1.00E+00	0.054%
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.93E-02	2.52E-02	4.85E-04	1.00E+00	0.049%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.81E-02	2.52E-02	4.55E-04	1.00E+00	0.046%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.82E-02	2.52E-02	4.58E-04	1.00E+00	0.046%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.83E-02	2.52E-02	4.60E-04	1.00E+00	0.046%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	3.58E-02	2.52E-02	9.01E-04	1.00E+00	0.09%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	3.56E-02	2.52E-02	8.96E-04	1.00E+00	0.09%
Max	Aerial	Forested	Plane	Hiker/Hunter	3.72E-02	2.52E-02	9.36E-04	1.00E+00	0.09%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	3.48E-02	2.52E-02	8.75E-04	1.00E+00	0.09%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	3.50E-02	2.52E-02	8.80E-04	1.00E+00	0.09%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	3.52E-02	2.52E-02	8.85E-04	1.00E+00	0.09%
Typical	Aerial	Non-Forested	Plane	Berry - child	1.86E-02	6.67E-02	1.24E-03	1.00E+00	0.12%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.13E-02	6.67E-02	1.42E-03	1.00E+00	0.14%
Typical	Aerial	Forested	Plane	Berry - child	1.93E-02	6.67E-02	1.29E-03	1.00E+00	0.13%
Typical	Aerial	Forested	Helicopter	Berry - child	1.81E-02	6.67E-02	1.21E-03	1.00E+00	0.12%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.82E-02	6.67E-02	1.21E-03	1.00E+00	0.12%
Typical	Ground	Not applicable	High Boom	Berry - child	1.83E-02	6.67E-02	1.22E-03	1.00E+00	0.12%
Max	Aerial	Non-Forested	Plane	Berry - child	3.58E-02	6.67E-02	2.39E-03	1.00E+00	0.24%
Max	Aerial	Non-Forested	Helicopter	Berry - child	3.56E-02	6.67E-02	2.37E-03	1.00E+00	0.24%
Max	Aerial	Forested	Plane	Berry - child	3.72E-02	6.67E-02	2.48E-03	1.00E+00	0.25%
Max	Aerial	Forested	Helicopter	Berry - child	3.48E-02	6.67E-02	2.32E-03	1.00E+00	0.23%
Max	Ground	Not applicable	Low Boom	Berry - child	3.50E-02	6.67E-02	2.33E-03	1.00E+00	0.23%
Max	Ground	Not applicable	High Boom	Berry - child	3.52E-02	6.67E-02	2.35E-03	1.00E+00	0.23%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.86E-02	2.52E-02	4.67E-04	1.00E+00	0.047%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.13E-02	2.52E-02	5.35E-04	1.00E+00	0.054%
Typical	Aerial	Forested	Plane	Berry - adult	1.93E-02	2.52E-02	4.85E-04	1.00E+00	0.049%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.81E-02	2.52E-02	4.55E-04	1.00E+00	0.046%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.82E-02	2.52E-02	4.58E-04	1.00E+00	0.046%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.83E-02	2.52E-02	4.60E-04	1.00E+00	0.046%
Max	Aerial	Non-Forested	Plane	Berry - adult	3.58E-02	2.52E-02	9.01E-04	1.00E+00	0.09%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	3.56E-02	2.52E-02	8.96E-04	1.00E+00	0.09%
Max	Aerial	Forested	Plane	Berry - adult	3.72E-02	2.52E-02	9.36E-04	1.00E+00	0.09%
Max	Aerial	Forested	Helicopter	Berry - adult	3.48E-02	2.52E-02	8.75E-04	1.00E+00	0.09%
Max	Ground	Not applicable	Low Boom	Berry - adult	3.50E-02	2.52E-02	8.80E-04	1.00E+00	0.09%
Max	Ground	Not applicable	High Boom	Berry - adult	3.52E-02	2.52E-02	8.85E-04	1.00E+00	0.09%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.86E-02	2.52E-02	4.67E-04	1.00E+00	0.047%
Typical	Aerial	Non-Forested	Helicopter	Angler	2.13E-02	2.52E-02	5.35E-04	1.00E+00	0.054%
Typical	Aerial	Forested	Plane	Angler	1.93E-02	2.52E-02	4.85E-04	1.00E+00	0.049%
Typical	Aerial	Forested	Helicopter	Angler	1.81E-02	2.52E-02	4.55E-04	1.00E+00	0.046%
Typical	Ground	Not applicable	Low Boom	Angler	1.82E-02	2.52E-02	4.58E-04	1.00E+00	0.046%
Typical	Ground	Not applicable	High Boom	Angler	1.83E-02	2.52E-02	4.60E-04	1.00E+00	0.046%
Max	Aerial	Non-Forested	Plane	Angler	3.58E-02	2.52E-02	9.01E-04	1.00E+00	0.09%
Max	Aerial	Non-Forested	Helicopter	Angler	3.56E-02	2.52E-02	8.96E-04	1.00E+00	0.09%
Max	Aerial	Forested	Plane	Angler	3.72E-02	2.52E-02	9.36E-04	1.00E+00	0.09%
Max	Aerial	Forested	Helicopter	Angler	3.48E-02	2.52E-02	8.75E-04	1.00E+00	0.09%
Max	Ground	Not applicable	Low Boom	Angler	3.50E-02	2.52E-02	8.80E-04	1.00E+00	0.09%
Max	Ground	Not applicable	High Boom	Angler	3.52E-02	2.52E-02	8.85E-04	1.00E+00	0.09%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.86E-02	3.33E-02	6.19E-04	1.00E+00	0.062%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	2.13E-02	3.33E-02	7.10E-04	1.00E+00	0.071%
Typical	Aerial	Forested	Plane	N.American - child	1.93E-02	3.33E-02	6.43E-04	1.00E+00	0.064%
Typical	Aerial	Forested	Helicopter	N.American - child	1.81E-02	3.33E-02	6.03E-04	1.00E+00	0.060%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.82E-02	3.33E-02	6.06E-04	1.00E+00	0.061%
Typical	Ground	Not applicable	High Boom	N.American - child	1.83E-02	3.33E-02	6.10E-04	1.00E+00	0.061%
Max	Aerial	Non-Forested	Plane	N.American - child	3.58E-02	3.33E-02	1.19E-03	1.00E+00	0.12%
Max	Aerial	Non-Forested	Helicopter	N.American - child	3.56E-02	3.33E-02	1.19E-03	1.00E+00	0.12%
Max	Aerial	Forested	Plane	N.American - child	3.72E-02	3.33E-02	1.24E-03	1.00E+00	0.12%
Max	Aerial	Forested	Helicopter	N.American - child	3.48E-02	3.33E-02	1.16E-03	1.00E+00	0.12%
Max	Ground	Not applicable	Low Boom	N.American - child	3.50E-02	3.33E-02	1.17E-03	1.00E+00	0.12%
Max	Ground	Not applicable	High Boom	N.American - child	3.52E-02	3.33E-02	1.17E-03	1.00E+00	0.12%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.86E-02	1.26E-02	2.33E-04	1.00E+00	0.023%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	2.13E-02	1.26E-02	2.68E-04	1.00E+00	0.027%
Typical	Aerial	Forested	Plane	N.American - adult	1.93E-02	1.26E-02	2.43E-04	1.00E+00	0.024%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.81E-02	1.26E-02	2.28E-04	1.00E+00	0.023%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.82E-02	1.26E-02	2.29E-04	1.00E+00	0.023%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.83E-02	1.26E-02	2.30E-04	1.00E+00	0.023%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.58E-02	1.26E-02	4.51E-04	1.00E+00	0.045%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	3.56E-02	1.26E-02	4.48E-04	1.00E+00	0.045%
Max	Aerial	Forested	Plane	N.American - adult	3.72E-02	1.26E-02	4.68E-04	1.00E+00	0.047%
Max	Aerial	Forested	Helicopter	N.American - adult	3.48E-02	1.26E-02	4.38E-04	1.00E+00	0.044%
Max	Ground	Not applicable	Low Boom	N.American - adult	3.50E-02	1.26E-02	4.40E-04	1.00E+00	0.044%
Max	Ground	Not applicable	High Boom	N.American - adult	3.52E-02	1.26E-02	4.43E-04	1.00E+00	0.044%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Fish
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.86E-02	6.06E+00	1.00E-06	7.67E+02	8.63E-05	1.00E+00	0.009%
Typical	Aerial	Non-Forested	Helicopter	Angler	2.13E-02	6.06E+00	1.00E-06	7.67E+02	9.90E-05	1.00E+00	0.010%
Typical	Aerial	Forested	Plane	Angler	1.93E-02	6.06E+00	1.00E-06	7.67E+02	8.97E-05	1.00E+00	0.009%
Typical	Aerial	Forested	Helicopter	Angler	1.81E-02	6.06E+00	1.00E-06	7.67E+02	8.41E-05	1.00E+00	0.0084%
Typical	Ground	Not applicable	Low Boom	Angler	1.82E-02	6.06E+00	1.00E-06	7.67E+02	8.46E-05	1.00E+00	0.008%
Typical	Ground	Not applicable	High Boom	Angler	1.83E-02	6.06E+00	1.00E-06	7.67E+02	8.51E-05	1.00E+00	0.009%
Max	Aerial	Non-Forested	Plane	Angler	3.58E-02	6.06E+00	1.00E-06	7.67E+02	1.67E-04	1.00E+00	0.017%
Max	Aerial	Non-Forested	Helicopter	Angler	3.56E-02	6.06E+00	1.00E-06	7.67E+02	1.66E-04	1.00E+00	0.017%
Max	Aerial	Forested	Plane	Angler	3.72E-02	6.06E+00	1.00E-06	7.67E+02	1.73E-04	1.00E+00	0.017%
Max	Aerial	Forested	Helicopter	Angler	3.48E-02	6.06E+00	1.00E-06	7.67E+02	1.62E-04	1.00E+00	0.016%
Max	Ground	Not applicable	Low Boom	Angler	3.50E-02	6.06E+00	1.00E-06	7.67E+02	1.63E-04	1.00E+00	0.016%
Max	Ground	Not applicable	High Boom	Angler	3.52E-02	6.06E+00	1.00E-06	7.67E+02	1.64E-04	1.00E+00	0.016%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.86E-02	6.06E+00	1.00E-06	1.11E+04	1.25E-03	1.00E+00	0.13%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	2.13E-02	6.06E+00	1.00E-06	1.11E+04	1.44E-03	1.00E+00	0.14%
Typical	Aerial	Forested	Plane	N.American - child	1.93E-02	6.06E+00	1.00E-06	1.11E+04	1.30E-03	1.00E+00	0.13%
Typical	Aerial	Forested	Helicopter	N.American - child	1.81E-02	6.06E+00	1.00E-06	1.11E+04	1.22E-03	1.00E+00	0.12%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.82E-02	6.06E+00	1.00E-06	1.11E+04	1.23E-03	1.00E+00	0.12%
Typical	Ground	Not applicable	High Boom	N.American - child	1.83E-02	6.06E+00	1.00E-06	1.11E+04	1.23E-03	1.00E+00	0.12%
Max	Aerial	Non-Forested	Plane	N.American - child	3.58E-02	6.06E+00	1.00E-06	1.11E+04	2.42E-03	1.00E+00	0.24%
Max	Aerial	Non-Forested	Helicopter	N.American - child	3.56E-02	6.06E+00	1.00E-06	1.11E+04	2.40E-03	1.00E+00	0.24%
Max	Aerial	Forested	Plane	N.American - child	3.72E-02	6.06E+00	1.00E-06	1.11E+04	2.51E-03	1.00E+00	0.25%
Max	Aerial	Forested	Helicopter	N.American - child	3.48E-02	6.06E+00	1.00E-06	1.11E+04	2.35E-03	1.00E+00	0.23%
Max	Ground	Not applicable	Low Boom	N.American - child	3.50E-02	6.06E+00	1.00E-06	1.11E+04	2.36E-03	1.00E+00	0.24%
Max	Ground	Not applicable	High Boom	N.American - child	3.52E-02	6.06E+00	1.00E-06	1.11E+04	2.37E-03	1.00E+00	0.24%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.86E-02	6.06E+00	1.00E-06	1.11E+04	1.25E-03	1.00E+00	0.13%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	2.13E-02	6.06E+00	1.00E-06	1.11E+04	1.44E-03	1.00E+00	0.14%
Typical	Aerial	Forested	Plane	N.American - adult	1.93E-02	6.06E+00	1.00E-06	1.11E+04	1.30E-03	1.00E+00	0.13%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.81E-02	6.06E+00	1.00E-06	1.11E+04	1.22E-03	1.00E+00	0.12%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.82E-02	6.06E+00	1.00E-06	1.11E+04	1.23E-03	1.00E+00	0.12%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.83E-02	6.06E+00	1.00E-06	1.11E+04	1.23E-03	1.00E+00	0.12%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.58E-02	6.06E+00	1.00E-06	1.11E+04	2.42E-03	1.00E+00	0.24%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	3.56E-02	6.06E+00	1.00E-06	1.11E+04	2.40E-03	1.00E+00	0.24%
Max	Aerial	Forested	Plane	N.American - adult	3.72E-02	6.06E+00	1.00E-06	1.11E+04	2.51E-03	1.00E+00	0.25%
Max	Aerial	Forested	Helicopter	N.American - adult	3.48E-02	6.06E+00	1.00E-06	1.11E+04	2.35E-03	1.00E+00	0.23%
Max	Ground	Not applicable	Low Boom	N.American - adult	3.50E-02	6.06E+00	1.00E-06	1.11E+04	2.36E-03	1.00E+00	0.24%
Max	Ground	Not applicable	High Boom	N.American - adult	3.52E-02	6.06E+00	1.00E-06	1.11E+04	2.37E-03	1.00E+00	0.24%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	1.00E+00	0.0166%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.47E-05	4.00E+00	1.39E-04	1.00E+00	0.0139%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	1.87E-04	4.00E+00	7.48E-04	1.00E+00	0.075%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	1.46E-05	4.00E+00	5.82E-05	1.00E+00	0.0058%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.34E-05	4.00E+00	5.36E-05	1.00E+00	0.0054%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	1.00E+00	0.0081%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	1.00E+00	0.0372%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	1.00E+00	0.0296%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	3.77E-04	4.00E+00	1.51E-03	1.00E+00	0.151%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	2.91E-05	4.00E+00	1.16E-04	1.00E+00	0.0116%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	1.00E+00	0.0098%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	1.00E+00	0.0157%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	1.00E+00	0.0167%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.47E-05	4.03E+00	1.40E-04	1.00E+00	0.0140%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.87E-04	4.03E+00	7.53E-04	1.00E+00	0.075%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	1.46E-05	4.03E+00	5.86E-05	1.00E+00	0.0059%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.34E-05	4.03E+00	5.39E-05	1.00E+00	0.0054%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	1.00E+00	0.0081%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	1.00E+00	0.0374%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	1.00E+00	0.0297%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	3.77E-04	4.03E+00	1.52E-03	1.00E+00	0.152%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	2.91E-05	4.03E+00	1.17E-04	1.00E+00	0.0117%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	1.00E+00	0.0099%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	1.00E+00	0.0158%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	1.00E+00	0.0166%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.47E-05	4.00E+00	1.39E-04	1.00E+00	0.0139%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	1.87E-04	4.00E+00	7.48E-04	1.00E+00	0.075%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	1.46E-05	4.00E+00	5.82E-05	1.00E+00	0.0058%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.34E-05	4.00E+00	5.36E-05	1.00E+00	0.0054%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	1.00E+00	0.0081%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	1.00E+00	0.0372%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	1.00E+00	0.0296%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	3.77E-04	4.00E+00	1.51E-03	1.00E+00	0.151%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	2.91E-05	4.00E+00	1.16E-04	1.00E+00	0.0116%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	1.00E+00	0.0098%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	1.00E+00	0.0157%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	1.00E+00	0.0167%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.47E-05	4.03E+00	1.40E-04	1.00E+00	0.0140%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.87E-04	4.03E+00	7.53E-04	1.00E+00	0.075%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	1.46E-05	4.03E+00	5.86E-05	1.00E+00	0.0059%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.34E-05	4.03E+00	5.39E-05	1.00E+00	0.0054%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	1.00E+00	0.0081%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	1.00E+00	0.0374%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	1.00E+00	0.0297%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	3.77E-04	4.03E+00	1.52E-03	1.00E+00	0.152%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	2.91E-05	4.03E+00	1.17E-04	1.00E+00	0.0117%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	1.00E+00	0.0099%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	1.00E+00	0.0158%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.047%	--	--	2.14E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.054%	--	--	1.87E+03
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.049%	--	--	2.06E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.046%	--	--	2.20E+03
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.046%	--	--	2.18E+03
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.046%	--	--	2.17E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.11E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.12E+03
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.07E+03
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.14E+03
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.14E+03
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.13E+03
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.12%	0.0166%	--	7.13E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.14%	0.0139%	--	6.42E+02
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.13%	0.075%	--	4.92E+02
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.12%	0.0058%	--	7.91E+02
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.12%	0.0054%	--	7.90E+02
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.12%	0.0081%	--	7.69E+02
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.24%	0.0372%	--	3.62E+02
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.24%	0.0296%	--	3.75E+02
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.25%	0.151%	--	2.51E+02
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.23%	0.0116%	--	4.10E+02
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.23%	0.0098%	--	4.11E+02
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.23%	0.0157%	--	4.00E+02
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.047%	0.0167%	--	1.58E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.054%	0.0140%	--	1.48E+03
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.049%	0.075%	--	8.08E+02
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.046%	0.0059%	--	1.95E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.046%	0.0054%	--	1.95E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.046%	0.0081%	--	1.85E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.0374%	--	7.84E+02
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.0297%	--	8.38E+02
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.152%	--	4.07E+02
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.0117%	--	1.01E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.0099%	--	1.02E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.0158%	--	9.59E+02

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.047%	--	0.009%	1.81E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.054%	--	0.010%	1.58E+03
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.049%	--	0.009%	1.74E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.046%	--	0.0084%	1.85E+03
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.046%	--	0.008%	1.84E+03
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.046%	--	0.009%	1.83E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.017%	9.36E+02
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.017%	9.42E+02
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.017%	9.01E+02
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.016%	9.64E+02
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.016%	9.59E+02
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.016%	9.53E+02
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.60E+05	--	0.062%	0.0166%	0.13%	3.75E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.39E+05	--	0.071%	0.0139%	0.14%	3.33E+02
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.54E+05	--	0.064%	0.075%	0.13%	2.99E+02
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.64E+05	--	0.060%	0.0058%	0.12%	4.01E+02
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	1.63E+05	--	0.061%	0.0054%	0.12%	4.00E+02
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	1.62E+05	--	0.061%	0.0081%	0.12%	3.93E+02
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	8.27E+04	--	0.12%	0.0372%	0.24%	1.93E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	8.31E+04	--	0.12%	0.0296%	0.24%	1.97E+02
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	7.96E+04	--	0.12%	0.151%	0.25%	1.53E+02
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	8.51E+04	--	0.12%	0.0116%	0.23%	2.08E+02
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	8.46E+04	--	0.12%	0.0098%	0.24%	2.08E+02
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	8.41E+04	--	0.12%	0.0157%	0.24%	2.04E+02
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	3.10E+05	--	0.023%	0.0167%	0.13%	5.06E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	2.70E+05	--	0.027%	0.0140%	0.14%	4.52E+02
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	2.98E+05	--	0.024%	0.075%	0.13%	3.80E+02
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	3.18E+05	--	0.023%	0.0059%	0.12%	5.49E+02
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	3.16E+05	--	0.023%	0.0054%	0.12%	5.48E+02
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	3.14E+05	--	0.023%	0.0081%	0.12%	5.36E+02
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.61E+05	--	0.045%	0.0374%	0.24%	2.59E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.62E+05	--	0.045%	0.0297%	0.24%	2.65E+02
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.55E+05	--	0.047%	0.152%	0.25%	1.94E+02
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.65E+05	--	0.044%	0.0117%	0.23%	2.85E+02
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.64E+05	--	0.044%	0.0099%	0.24%	2.85E+02
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.64E+05	--	0.044%	0.0158%	0.24%	2.79E+02

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	4.15E+05	6.74E+05	--	--	--	2.57E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	3.62E+05	5.87E+05	--	--	--	2.24E+03
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	3.99E+05	6.48E+05	--	--	--	2.47E+03
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	4.26E+05	6.91E+05	--	--	--	2.63E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	4.23E+05	6.87E+05	--	--	--	2.62E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	4.21E+05	6.83E+05	--	--	--	2.60E+03
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	2.15E+05	3.49E+05	--	--	--	1.33E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.16E+05	3.51E+05	--	--	--	1.34E+03
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	2.07E+05	3.36E+05	--	--	--	1.28E+03
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.21E+05	3.59E+05	--	--	--	1.37E+03
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	2.20E+05	3.57E+05	--	--	--	1.36E+03
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	2.19E+05	3.55E+05	--	--	--	1.35E+03
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	8.06E+05	6.03E+06	--	--	--	7.11E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	7.03E+05	5.26E+06	--	--	--	6.20E+03
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	7.76E+05	5.80E+06	--	--	--	6.84E+03
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	8.27E+05	6.19E+06	--	--	--	7.30E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	8.22E+05	6.15E+06	--	--	--	7.26E+03
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	8.18E+05	6.12E+06	--	--	--	7.21E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	4.18E+05	3.13E+06	--	--	--	3.68E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	4.20E+05	3.14E+06	--	--	--	3.71E+03
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	4.02E+05	3.01E+06	--	--	--	3.55E+03
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	4.30E+05	3.22E+06	--	--	--	3.79E+03
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	4.28E+05	3.20E+06	--	--	--	3.77E+03
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	4.25E+05	3.18E+06	--	--	--	3.75E+03

--Receptor not exposed via this pathway.
NA - Not Available.
NC - Not Calculated (No dose-response value).
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Intermediate-term Exposure

Herbicide: **Fluroxypyr**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a)						Maximum Application Rate Scenario ARIs (a)					
AgDrift Scenario:	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	2,142	1,867	2,061	2,197	2,185	2,172	1,110	1,116	1,068	1,142	1,136	1,130
Berry Picker (Child)	713	642	492	791	790	769	362	375	251	410	411	400
Berry Picker (Adult)	1,578	1,481	808	1,947	1,955	1,846	784	838	407	1,007	1,021	959
Angler (Adult)	1,808	1,576	1,739	1,854	1,844	1,833	936	942	901	964	959	953
Residential (Child)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Residential (Adult)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Native American (Child)	375	333	299	401	400	393	193	197	153	208	208	204
Native American (Adult)	506	452	380	549	548	536	259	265	194	285	285	279
Swimmer (Child)	2,567	2,238	2,470	2,634	2,619	2,604	1,330	1,338	1,280	1,369	1,362	1,354
Swimmer (Adult)	7,112	6,201	6,843	7,296	7,255	7,212	3,684	3,706	3,547	3,793	3,773	3,751

ARI - Aggregate Risk Index. Values less than one represent a level of concern. ARI does not include dermal exposure due to low toxicity. See Table 3-1.

(a) - Application rates are shown on Table 4-1 and are the same for each program.

(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.

(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	NA	3.92E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	NA	4.14E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	NA	3.47E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	NA	1.87E-04	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	NA	1.46E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	NA	1.34E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	NA	3.77E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	NA	2.91E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	NA	3.92E-05	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	NA	3.92E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	NA	4.14E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	NA	3.47E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	NA	1.87E-04	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	NA	1.46E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	NA	1.34E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	NA	3.77E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	NA	2.91E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	NA	3.92E-05	7.17E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	NA	4.14E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	NA	3.47E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	NA	1.87E-04	1.87E+02	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	NA	1.46E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	NA	1.34E-05	1.87E+02	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	NA	2.02E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	NA	9.30E-05	1.87E+02	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	NA	7.39E-05	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	NA	3.77E-04	1.87E+02	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	NA	2.91E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	NA	2.46E-05	1.87E+02	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	NA	3.92E-05	1.87E+02	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	NA	4.14E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	3.47E-05	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	NA	1.87E-04	7.17E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	NA	1.46E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	NA	1.34E-05	7.17E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	NA	2.02E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	NA	9.30E-05	7.17E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	NA	7.39E-05	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	NA	3.77E-04	7.17E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	NA	2.91E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	NA	2.46E-05	7.17E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	NA	3.92E-05	7.17E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	4.14E-05	1.04E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	3.47E-05	8.68E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	1.87E-04	4.68E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	1.46E-05	3.64E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	1.34E-05	3.35E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	2.02E-05	5.05E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	NA	9.30E-05	2.33E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	7.39E-05	1.85E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	NA	3.77E-04	9.44E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	NA	2.91E-05	7.28E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	NA	2.46E-05	6.15E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	NA	3.92E-05	9.80E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	4.14E-05	1.04E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	3.47E-05	8.68E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	1.87E-04	4.68E-05	6.05E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	1.46E-05	3.64E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	1.34E-05	3.35E-06	6.05E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	2.02E-05	5.05E-06	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	NA	9.30E-05	2.33E-05	6.05E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	NA	7.39E-05	1.85E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	NA	3.77E-04	9.44E-05	6.05E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	NA	2.91E-05	7.28E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	NA	2.46E-05	6.15E-06	6.05E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	NA	3.92E-05	9.80E-06	6.05E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	4.14E-05	1.04E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	3.47E-05	8.68E-06	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	1.87E-04	4.68E-05	3.46E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	1.46E-05	3.64E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	1.34E-05	3.35E-06	3.46E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	2.02E-05	5.05E-06	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	NA	9.30E-05	2.33E-05	3.46E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	NA	7.39E-05	1.85E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	NA	3.77E-04	9.44E-05	3.46E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	NA	2.91E-05	7.28E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	NA	2.46E-05	6.15E-06	3.46E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	NA	3.92E-05	9.80E-06	3.46E+01	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	4.14E-05	1.04E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	3.47E-05	8.68E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	Angler	2.50E-01	NA	1.87E-04	4.68E-05	2.01E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	1.46E-05	3.64E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	1.34E-05	3.35E-06	2.01E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	2.02E-05	5.05E-06	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	NA	9.30E-05	2.33E-05	2.01E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	NA	7.39E-05	1.85E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Plane	Angler	2.50E-01	NA	3.77E-04	9.44E-05	2.01E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	NA	2.91E-05	7.28E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	NA	2.46E-05	6.15E-06	2.01E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	NA	3.92E-05	9.80E-06	2.01E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	4.14E-05	4.14E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	3.47E-05	3.47E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	NA	1.87E-04	1.87E-06	5.94E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	1.46E-05	1.46E-07	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	1.34E-05	1.34E-07	5.94E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	2.02E-05	2.02E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	NA	9.30E-05	9.30E-07	5.94E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	NA	7.39E-05	7.39E-07	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-child	1.00E-02	NA	3.77E-04	3.77E-06	5.94E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	NA	2.91E-05	2.91E-07	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	NA	2.46E-05	2.46E-07	5.94E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	NA	3.92E-05	3.92E-07	5.94E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	4.14E-05	4.14E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	3.47E-05	3.47E-07	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	1.87E-04	1.87E-06	3.40E+03	NC	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	1.46E-05	1.46E-07	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	1.34E-05	1.34E-07	3.40E+03	NC	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	2.02E-05	2.02E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	NA	9.30E-05	9.30E-07	3.40E+03	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	NA	7.39E-05	7.39E-07	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	NA	3.77E-04	3.77E-06	3.40E+03	NC	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	NA	2.91E-05	2.91E-07	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	NA	2.46E-05	2.46E-07	3.40E+03	NC	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	NA	3.92E-05	3.92E-07	3.40E+03	NC	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.e./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	4.14E-05	1.04E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	3.47E-05	8.68E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	1.87E-04	4.68E-05	7.26E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	1.46E-05	3.64E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	1.34E-05	3.35E-06	7.26E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	2.02E-05	5.05E-06	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	NA	9.30E-05	2.33E-05	7.26E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	NA	7.39E-05	1.85E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	NA	3.77E-04	9.44E-05	7.26E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	NA	2.91E-05	7.28E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	NA	2.46E-05	6.15E-06	7.26E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	NA	3.92E-05	9.80E-06	7.26E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	4.14E-05	1.04E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	3.47E-05	8.68E-06	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	1.87E-04	4.68E-05	4.15E+01	NC	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	1.46E-05	3.64E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	1.34E-05	3.35E-06	4.15E+01	NC	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	2.02E-05	5.05E-06	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	NA	9.30E-05	2.33E-05	4.15E+01	NC	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	NA	7.39E-05	1.85E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	NA	3.77E-04	9.44E-05	4.15E+01	NC	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	NA	2.91E-05	7.28E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	NA	2.46E-05	6.15E-06	4.15E+01	NC	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	NA	3.92E-05	9.80E-06	4.15E+01	NC	NA	NC

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.95E-02	2.72E-03	1.00E-03	4.40E+02	3.53E-05	1.00E+02	2.83E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.95E-02	5.44E-03	1.00E-03	4.40E+02	7.07E-05	1.00E+02	1.41E+06
Typical	Aerial	Forested	Plane	Swimmer-child	2.95E-02	3.45E-03	1.00E-03	4.40E+02	4.48E-05	1.00E+02	2.23E+06
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.95E-02	2.25E-03	1.00E-03	4.40E+02	2.92E-05	1.00E+02	3.42E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.95E-02	2.35E-03	1.00E-03	4.40E+02	3.05E-05	1.00E+02	3.27E+06
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.95E-02	2.46E-03	1.00E-03	4.40E+02	3.19E-05	1.00E+02	3.13E+06
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.95E-02	5.36E-03	1.00E-03	4.40E+02	6.96E-05	1.00E+02	1.44E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.95E-02	5.15E-03	1.00E-03	4.40E+02	6.69E-05	1.00E+02	1.49E+06
Max	Aerial	Forested	Plane	Swimmer-child	2.95E-02	6.75E-03	1.00E-03	4.40E+02	8.77E-05	1.00E+02	1.14E+06
Max	Aerial	Forested	Helicopter	Swimmer-child	2.95E-02	4.33E-03	1.00E-03	4.40E+02	5.63E-05	1.00E+02	1.78E+06
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.95E-02	4.52E-03	1.00E-03	4.40E+02	5.87E-05	1.00E+02	1.70E+06
Max	Ground	Not applicable	High Boom	Swimmer-child	2.95E-02	4.73E-03	1.00E-03	4.40E+02	6.14E-05	1.00E+02	1.63E+06
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.95E-02	2.72E-03	1.00E-03	2.26E+02	1.82E-05	1.00E+02	5.50E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.95E-02	5.44E-03	1.00E-03	2.26E+02	3.64E-05	1.00E+02	2.75E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	2.95E-02	3.45E-03	1.00E-03	2.26E+02	2.30E-05	1.00E+02	4.34E+06
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.95E-02	2.25E-03	1.00E-03	2.26E+02	1.50E-05	1.00E+02	6.65E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.95E-02	2.35E-03	1.00E-03	2.26E+02	1.57E-05	1.00E+02	6.36E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.95E-02	2.46E-03	1.00E-03	2.26E+02	1.64E-05	1.00E+02	6.08E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.95E-02	5.36E-03	1.00E-03	2.26E+02	3.58E-05	1.00E+02	2.79E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.95E-02	5.15E-03	1.00E-03	2.26E+02	3.44E-05	1.00E+02	2.90E+06
Max	Aerial	Forested	Plane	Swimmer-adult	2.95E-02	6.75E-03	1.00E-03	2.26E+02	4.51E-05	1.00E+02	2.22E+06
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.95E-02	4.33E-03	1.00E-03	2.26E+02	2.90E-05	1.00E+02	3.45E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.95E-02	4.52E-03	1.00E-03	2.26E+02	3.02E-05	1.00E+02	3.31E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.95E-02	4.73E-03	1.00E-03	2.26E+02	3.16E-05	1.00E+02	3.16E+06
Typical	Aerial	Non-Forested	Plane	N.American-child	2.95E-02	2.72E-03	1.00E-03	1.14E+03	9.18E-05	1.00E+02	1.09E+06
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.95E-02	5.44E-03	1.00E-03	1.14E+03	1.84E-04	1.00E+02	5.44E+05
Typical	Aerial	Forested	Plane	N.American-child	2.95E-02	3.45E-03	1.00E-03	1.14E+03	1.16E-04	1.00E+02	8.59E+05
Typical	Aerial	Forested	Helicopter	N.American-child	2.95E-02	2.25E-03	1.00E-03	1.14E+03	7.60E-05	1.00E+02	1.32E+06
Typical	Ground	Not applicable	Low Boom	N.American-child	2.95E-02	2.35E-03	1.00E-03	1.14E+03	7.94E-05	1.00E+02	1.26E+06
Typical	Ground	Not applicable	High Boom	N.American-child	2.95E-02	2.46E-03	1.00E-03	1.14E+03	8.30E-05	1.00E+02	1.20E+06
Max	Aerial	Non-Forested	Plane	N.American-child	2.95E-02	5.36E-03	1.00E-03	1.14E+03	1.81E-04	1.00E+02	5.52E+05
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.95E-02	5.15E-03	1.00E-03	1.14E+03	1.74E-04	1.00E+02	5.75E+05
Max	Aerial	Forested	Plane	N.American-child	2.95E-02	6.75E-03	1.00E-03	1.14E+03	2.28E-04	1.00E+02	4.39E+05
Max	Aerial	Forested	Helicopter	N.American-child	2.95E-02	4.33E-03	1.00E-03	1.14E+03	1.46E-04	1.00E+02	6.83E+05
Max	Ground	Not applicable	Low Boom	N.American-child	2.95E-02	4.52E-03	1.00E-03	1.14E+03	1.53E-04	1.00E+02	6.55E+05
Max	Ground	Not applicable	High Boom	N.American-child	2.95E-02	4.73E-03	1.00E-03	1.14E+03	1.60E-04	1.00E+02	6.26E+05

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.e./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.95E-02	2.72E-03	1.00E-03	5.89E+02	4.72E-05	1.00E+02	2.12E+06
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.95E-02	5.44E-03	1.00E-03	5.89E+02	9.46E-05	1.00E+02	1.06E+06
Typical	Aerial	Forested	Plane	N.American-adult	2.95E-02	3.45E-03	1.00E-03	5.89E+02	5.99E-05	1.00E+02	1.67E+06
Typical	Aerial	Forested	Helicopter	N.American-adult	2.95E-02	2.25E-03	1.00E-03	5.89E+02	3.91E-05	1.00E+02	2.56E+06
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.95E-02	2.35E-03	1.00E-03	5.89E+02	4.09E-05	1.00E+02	2.45E+06
Typical	Ground	Not applicable	High Boom	N.American-adult	2.95E-02	2.46E-03	1.00E-03	5.89E+02	4.27E-05	1.00E+02	2.34E+06
Max	Aerial	Non-Forested	Plane	N.American-adult	2.95E-02	5.36E-03	1.00E-03	5.89E+02	9.32E-05	1.00E+02	1.07E+06
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.95E-02	5.15E-03	1.00E-03	5.89E+02	8.95E-05	1.00E+02	1.12E+06
Max	Aerial	Forested	Plane	N.American-adult	2.95E-02	6.75E-03	1.00E-03	5.89E+02	1.17E-04	1.00E+02	8.52E+05
Max	Aerial	Forested	Helicopter	N.American-adult	2.95E-02	4.33E-03	1.00E-03	5.89E+02	7.53E-05	1.00E+02	1.33E+06
Max	Ground	Not applicable	Low Boom	N.American-adult	2.95E-02	4.52E-03	1.00E-03	5.89E+02	7.86E-05	1.00E+02	1.27E+06
Max	Ground	Not applicable	High Boom	N.American-adult	2.95E-02	4.73E-03	1.00E-03	5.89E+02	8.22E-05	1.00E+02	1.22E+06

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.72E-03	8.00E-03	2.17E-05	1.00E+02	4.60E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	5.44E-03	8.00E-03	4.36E-05	1.00E+02	2.30E+06
Typical	Aerial	Forested	Plane	Swimmer-child	3.45E-03	8.00E-03	2.76E-05	1.00E+02	3.63E+06
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.25E-03	8.00E-03	1.80E-05	1.00E+02	5.56E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.35E-03	8.00E-03	1.88E-05	1.00E+02	5.32E+06
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.46E-03	8.00E-03	1.97E-05	1.00E+02	5.08E+06
Max	Aerial	Non-Forested	Plane	Swimmer-child	5.36E-03	8.00E-03	4.29E-05	1.00E+02	2.33E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	5.15E-03	8.00E-03	4.12E-05	1.00E+02	2.43E+06
Max	Aerial	Forested	Plane	Swimmer-child	6.75E-03	8.00E-03	5.40E-05	1.00E+02	1.85E+06
Max	Aerial	Forested	Helicopter	Swimmer-child	4.33E-03	8.00E-03	3.47E-05	1.00E+02	2.88E+06
Max	Ground	Not applicable	Low Boom	Swimmer-child	4.52E-03	8.00E-03	3.62E-05	1.00E+02	2.76E+06
Max	Ground	Not applicable	High Boom	Swimmer-child	4.73E-03	8.00E-03	3.78E-05	1.00E+02	2.64E+06
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.72E-03	8.93E-04	2.43E-06	1.00E+02	4.12E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	5.44E-03	8.93E-04	4.86E-06	1.00E+02	2.06E+07
Typical	Aerial	Forested	Plane	Swimmer-adult	3.45E-03	8.93E-04	3.08E-06	1.00E+02	3.25E+07
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.25E-03	8.93E-04	2.01E-06	1.00E+02	4.98E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.35E-03	8.93E-04	2.10E-06	1.00E+02	4.76E+07
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.46E-03	8.93E-04	2.20E-06	1.00E+02	4.55E+07
Max	Aerial	Non-Forested	Plane	Swimmer-adult	5.36E-03	8.93E-04	4.79E-06	1.00E+02	2.09E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	5.15E-03	8.93E-04	4.60E-06	1.00E+02	2.17E+07
Max	Aerial	Forested	Plane	Swimmer-adult	6.75E-03	8.93E-04	6.03E-06	1.00E+02	1.66E+07
Max	Aerial	Forested	Helicopter	Swimmer-adult	4.33E-03	8.93E-04	3.87E-06	1.00E+02	2.58E+07
Max	Ground	Not applicable	Low Boom	Swimmer-adult	4.52E-03	8.93E-04	4.04E-06	1.00E+02	2.48E+07
Max	Ground	Not applicable	High Boom	Swimmer-adult	4.73E-03	8.93E-04	4.22E-06	1.00E+02	2.37E+07

a.e. - acid equivalent
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
(a) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.72E-03	2.52E-02	6.84E-05	1.00E+00	0.0068%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	5.44E-03	2.52E-02	1.37E-04	1.00E+00	0.014%
Typical	Aerial	Forested	Plane	Hiker/Hunter	3.45E-03	2.52E-02	8.67E-05	1.00E+00	0.009%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.25E-03	2.52E-02	5.66E-05	1.00E+00	0.0057%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.35E-03	2.52E-02	5.91E-05	1.00E+00	0.0059%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.46E-03	2.52E-02	6.19E-05	1.00E+00	0.0062%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	5.36E-03	2.52E-02	1.35E-04	1.00E+00	0.013%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	5.15E-03	2.52E-02	1.30E-04	1.00E+00	0.013%
Max	Aerial	Forested	Plane	Hiker/Hunter	6.75E-03	2.52E-02	1.70E-04	1.00E+00	0.017%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	4.33E-03	2.52E-02	1.09E-04	1.00E+00	0.011%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	4.52E-03	2.52E-02	1.14E-04	1.00E+00	0.011%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	4.73E-03	2.52E-02	1.19E-04	1.00E+00	0.012%
Typical	Aerial	Non-Forested	Plane	Berry - child	2.72E-03	6.67E-02	1.81E-04	1.00E+00	0.018%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	5.44E-03	6.67E-02	3.63E-04	1.00E+00	0.036%
Typical	Aerial	Forested	Plane	Berry - child	3.45E-03	6.67E-02	2.30E-04	1.00E+00	0.023%
Typical	Aerial	Forested	Helicopter	Berry - child	2.25E-03	6.67E-02	1.50E-04	1.00E+00	0.015%
Typical	Ground	Not applicable	Low Boom	Berry - child	2.35E-03	6.67E-02	1.57E-04	1.00E+00	0.016%
Typical	Ground	Not applicable	High Boom	Berry - child	2.46E-03	6.67E-02	1.64E-04	1.00E+00	0.016%
Max	Aerial	Non-Forested	Plane	Berry - child	5.36E-03	6.67E-02	3.57E-04	1.00E+00	0.036%
Max	Aerial	Non-Forested	Helicopter	Berry - child	5.15E-03	6.67E-02	3.44E-04	1.00E+00	0.034%
Max	Aerial	Forested	Plane	Berry - child	6.75E-03	6.67E-02	4.50E-04	1.00E+00	0.045%
Max	Aerial	Forested	Helicopter	Berry - child	4.33E-03	6.67E-02	2.89E-04	1.00E+00	0.029%
Max	Ground	Not applicable	Low Boom	Berry - child	4.52E-03	6.67E-02	3.01E-04	1.00E+00	0.030%
Max	Ground	Not applicable	High Boom	Berry - child	4.73E-03	6.67E-02	3.15E-04	1.00E+00	0.032%
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.72E-03	2.52E-02	6.84E-05	1.00E+00	0.007%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	5.44E-03	2.52E-02	1.37E-04	1.00E+00	0.014%
Typical	Aerial	Forested	Plane	Berry - adult	3.45E-03	2.52E-02	8.67E-05	1.00E+00	0.009%
Typical	Aerial	Forested	Helicopter	Berry - adult	2.25E-03	2.52E-02	5.66E-05	1.00E+00	0.0057%
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.35E-03	2.52E-02	5.91E-05	1.00E+00	0.0059%
Typical	Ground	Not applicable	High Boom	Berry - adult	2.46E-03	2.52E-02	6.19E-05	1.00E+00	0.0062%
Max	Aerial	Non-Forested	Plane	Berry - adult	5.36E-03	2.52E-02	1.35E-04	1.00E+00	0.013%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	5.15E-03	2.52E-02	1.30E-04	1.00E+00	0.013%
Max	Aerial	Forested	Plane	Berry - adult	6.75E-03	2.52E-02	1.70E-04	1.00E+00	0.017%
Max	Aerial	Forested	Helicopter	Berry - adult	4.33E-03	2.52E-02	1.09E-04	1.00E+00	0.011%
Max	Ground	Not applicable	Low Boom	Berry - adult	4.52E-03	2.52E-02	1.14E-04	1.00E+00	0.011%
Max	Ground	Not applicable	High Boom	Berry - adult	4.73E-03	2.52E-02	1.19E-04	1.00E+00	0.012%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	2.72E-03	2.52E-02	6.84E-05	1.00E+00	0.0068%
Typical	Aerial	Non-Forested	Helicopter	Angler	5.44E-03	2.52E-02	1.37E-04	1.00E+00	0.014%
Typical	Aerial	Forested	Plane	Angler	3.45E-03	2.52E-02	8.67E-05	1.00E+00	0.009%
Typical	Aerial	Forested	Helicopter	Angler	2.25E-03	2.52E-02	5.66E-05	1.00E+00	0.0057%
Typical	Ground	Not applicable	Low Boom	Angler	2.35E-03	2.52E-02	5.91E-05	1.00E+00	0.0059%
Typical	Ground	Not applicable	High Boom	Angler	2.46E-03	2.52E-02	6.19E-05	1.00E+00	0.0062%
Max	Aerial	Non-Forested	Plane	Angler	5.36E-03	2.52E-02	1.35E-04	1.00E+00	0.013%
Max	Aerial	Non-Forested	Helicopter	Angler	5.15E-03	2.52E-02	1.30E-04	1.00E+00	0.013%
Max	Aerial	Forested	Plane	Angler	6.75E-03	2.52E-02	1.70E-04	1.00E+00	0.017%
Max	Aerial	Forested	Helicopter	Angler	4.33E-03	2.52E-02	1.09E-04	1.00E+00	0.011%
Max	Ground	Not applicable	Low Boom	Angler	4.52E-03	2.52E-02	1.14E-04	1.00E+00	0.011%
Max	Ground	Not applicable	High Boom	Angler	4.73E-03	2.52E-02	1.19E-04	1.00E+00	0.012%
Typical	Aerial	Non-Forested	Plane	N.American - child	2.72E-03	3.33E-02	9.06E-05	1.00E+00	0.0091%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	5.44E-03	3.33E-02	1.81E-04	1.00E+00	0.018%
Typical	Aerial	Forested	Plane	N.American - child	3.45E-03	3.33E-02	1.15E-04	1.00E+00	0.011%
Typical	Aerial	Forested	Helicopter	N.American - child	2.25E-03	3.33E-02	7.50E-05	1.00E+00	0.0075%
Typical	Ground	Not applicable	Low Boom	N.American - child	2.35E-03	3.33E-02	7.84E-05	1.00E+00	0.0078%
Typical	Ground	Not applicable	High Boom	N.American - child	2.46E-03	3.33E-02	8.20E-05	1.00E+00	0.0082%
Max	Aerial	Non-Forested	Plane	N.American - child	5.36E-03	3.33E-02	1.79E-04	1.00E+00	0.018%
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.15E-03	3.33E-02	1.72E-04	1.00E+00	0.017%
Max	Aerial	Forested	Plane	N.American - child	6.75E-03	3.33E-02	2.25E-04	1.00E+00	0.023%
Max	Aerial	Forested	Helicopter	N.American - child	4.33E-03	3.33E-02	1.44E-04	1.00E+00	0.014%
Max	Ground	Not applicable	Low Boom	N.American - child	4.52E-03	3.33E-02	1.51E-04	1.00E+00	0.015%
Max	Ground	Not applicable	High Boom	N.American - child	4.73E-03	3.33E-02	1.58E-04	1.00E+00	0.016%
Typical	Aerial	Non-Forested	Plane	N.American - adult	2.72E-03	1.26E-02	3.42E-05	1.00E+00	0.0034%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	5.44E-03	1.26E-02	6.85E-05	1.00E+00	0.0068%
Typical	Aerial	Forested	Plane	N.American - adult	3.45E-03	1.26E-02	4.34E-05	1.00E+00	0.0043%
Typical	Aerial	Forested	Helicopter	N.American - adult	2.25E-03	1.26E-02	2.83E-05	1.00E+00	0.0028%
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.35E-03	1.26E-02	2.96E-05	1.00E+00	0.0030%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.46E-03	1.26E-02	3.09E-05	1.00E+00	0.0031%
Max	Aerial	Non-Forested	Plane	N.American - adult	5.36E-03	1.26E-02	6.74E-05	1.00E+00	0.0067%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.15E-03	1.26E-02	6.48E-05	1.00E+00	0.0065%
Max	Aerial	Forested	Plane	N.American - adult	6.75E-03	1.26E-02	8.49E-05	1.00E+00	0.008%
Max	Aerial	Forested	Helicopter	N.American - adult	4.33E-03	1.26E-02	5.45E-05	1.00E+00	0.0055%
Max	Ground	Not applicable	Low Boom	N.American - adult	4.52E-03	1.26E-02	5.69E-05	1.00E+00	0.0057%
Max	Ground	Not applicable	High Boom	N.American - adult	4.73E-03	1.26E-02	5.95E-05	1.00E+00	0.0059%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Fish
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.e./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	2.72E-03	6.06E+00	1.00E-06	7.67E+02	1.26E-05	1.00E+00	0.0013%
Typical	Aerial	Non-Forested	Helicopter	Angler	5.44E-03	6.06E+00	1.00E-06	7.67E+02	2.53E-05	1.00E+00	0.0025%
Typical	Aerial	Forested	Plane	Angler	3.45E-03	6.06E+00	1.00E-06	7.67E+02	1.60E-05	1.00E+00	0.0016%
Typical	Aerial	Forested	Helicopter	Angler	2.25E-03	6.06E+00	1.00E-06	7.67E+02	1.05E-05	1.00E+00	0.0010%
Typical	Ground	Not applicable	Low Boom	Angler	2.35E-03	6.06E+00	1.00E-06	7.67E+02	1.09E-05	1.00E+00	0.0011%
Typical	Ground	Not applicable	High Boom	Angler	2.46E-03	6.06E+00	1.00E-06	7.67E+02	1.14E-05	1.00E+00	0.0011%
Max	Aerial	Non-Forested	Plane	Angler	5.36E-03	6.06E+00	1.00E-06	7.67E+02	2.49E-05	1.00E+00	0.0025%
Max	Aerial	Non-Forested	Helicopter	Angler	5.15E-03	6.06E+00	1.00E-06	7.67E+02	2.40E-05	1.00E+00	0.0024%
Max	Aerial	Forested	Plane	Angler	6.75E-03	6.06E+00	1.00E-06	7.67E+02	3.14E-05	1.00E+00	0.0031%
Max	Aerial	Forested	Helicopter	Angler	4.33E-03	6.06E+00	1.00E-06	7.67E+02	2.01E-05	1.00E+00	0.0020%
Max	Ground	Not applicable	Low Boom	Angler	4.52E-03	6.06E+00	1.00E-06	7.67E+02	2.10E-05	1.00E+00	0.0021%
Max	Ground	Not applicable	High Boom	Angler	4.73E-03	6.06E+00	1.00E-06	7.67E+02	2.20E-05	1.00E+00	0.0022%
Typical	Aerial	Non-Forested	Plane	N.American - child	2.72E-03	6.06E+00	1.00E-06	1.11E+04	1.83E-04	1.00E+00	0.018%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	5.44E-03	6.06E+00	1.00E-06	1.11E+04	3.67E-04	1.00E+00	0.037%
Typical	Aerial	Forested	Plane	N.American - child	3.45E-03	6.06E+00	1.00E-06	1.11E+04	2.33E-04	1.00E+00	0.023%
Typical	Aerial	Forested	Helicopter	N.American - child	2.25E-03	6.06E+00	1.00E-06	1.11E+04	1.52E-04	1.00E+00	0.015%
Typical	Ground	Not applicable	Low Boom	N.American - child	2.35E-03	6.06E+00	1.00E-06	1.11E+04	1.59E-04	1.00E+00	0.016%
Typical	Ground	Not applicable	High Boom	N.American - child	2.46E-03	6.06E+00	1.00E-06	1.11E+04	1.66E-04	1.00E+00	0.017%
Max	Aerial	Non-Forested	Plane	N.American - child	5.36E-03	6.06E+00	1.00E-06	1.11E+04	3.62E-04	1.00E+00	0.036%
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.15E-03	6.06E+00	1.00E-06	1.11E+04	3.48E-04	1.00E+00	0.035%
Max	Aerial	Forested	Plane	N.American - child	6.75E-03	6.06E+00	1.00E-06	1.11E+04	4.55E-04	1.00E+00	0.046%
Max	Aerial	Forested	Helicopter	N.American - child	4.33E-03	6.06E+00	1.00E-06	1.11E+04	2.92E-04	1.00E+00	0.029%
Max	Ground	Not applicable	Low Boom	N.American - child	4.52E-03	6.06E+00	1.00E-06	1.11E+04	3.05E-04	1.00E+00	0.031%
Max	Ground	Not applicable	High Boom	N.American - child	4.73E-03	6.06E+00	1.00E-06	1.11E+04	3.19E-04	1.00E+00	0.032%
Typical	Aerial	Non-Forested	Plane	N.American - adult	2.72E-03	6.06E+00	1.00E-06	1.11E+04	1.83E-04	1.00E+00	0.018%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	5.44E-03	6.06E+00	1.00E-06	1.11E+04	3.67E-04	1.00E+00	0.037%
Typical	Aerial	Forested	Plane	N.American - adult	3.45E-03	6.06E+00	1.00E-06	1.11E+04	2.33E-04	1.00E+00	0.023%
Typical	Aerial	Forested	Helicopter	N.American - adult	2.25E-03	6.06E+00	1.00E-06	1.11E+04	1.52E-04	1.00E+00	0.015%
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.35E-03	6.06E+00	1.00E-06	1.11E+04	1.59E-04	1.00E+00	0.016%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.46E-03	6.06E+00	1.00E-06	1.11E+04	1.66E-04	1.00E+00	0.017%
Max	Aerial	Non-Forested	Plane	N.American - adult	5.36E-03	6.06E+00	1.00E-06	1.11E+04	3.62E-04	1.00E+00	0.036%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.15E-03	6.06E+00	1.00E-06	1.11E+04	3.48E-04	1.00E+00	0.035%
Max	Aerial	Forested	Plane	N.American - adult	6.75E-03	6.06E+00	1.00E-06	1.11E+04	4.55E-04	1.00E+00	0.046%
Max	Aerial	Forested	Helicopter	N.American - adult	4.33E-03	6.06E+00	1.00E-06	1.11E+04	2.92E-04	1.00E+00	0.029%
Max	Ground	Not applicable	Low Boom	N.American - adult	4.52E-03	6.06E+00	1.00E-06	1.11E+04	3.05E-04	1.00E+00	0.031%
Max	Ground	Not applicable	High Boom	N.American - adult	4.73E-03	6.06E+00	1.00E-06	1.11E+04	3.19E-04	1.00E+00	0.032%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	1.00E+00	0.0166%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.47E-05	4.00E+00	1.39E-04	1.00E+00	0.0139%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	1.87E-04	4.00E+00	7.48E-04	1.00E+00	0.075%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	1.46E-05	4.00E+00	5.82E-05	1.00E+00	0.0058%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.34E-05	4.00E+00	5.36E-05	1.00E+00	0.0054%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	1.00E+00	0.0081%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	1.00E+00	0.0372%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	1.00E+00	0.0296%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	3.77E-04	4.00E+00	1.51E-03	1.00E+00	0.151%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	2.91E-05	4.00E+00	1.16E-04	1.00E+00	0.0116%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	1.00E+00	0.0098%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	1.00E+00	0.0157%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	1.00E+00	0.0167%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.47E-05	4.03E+00	1.40E-04	1.00E+00	0.0140%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.87E-04	4.03E+00	7.53E-04	1.00E+00	0.075%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	1.46E-05	4.03E+00	5.86E-05	1.00E+00	0.0059%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.34E-05	4.03E+00	5.39E-05	1.00E+00	0.0054%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	1.00E+00	0.0081%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	1.00E+00	0.0374%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	1.00E+00	0.0297%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	3.77E-04	4.03E+00	1.52E-03	1.00E+00	0.152%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	2.91E-05	4.03E+00	1.17E-04	1.00E+00	0.0117%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	1.00E+00	0.0099%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	1.00E+00	0.0158%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.e./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	1.00E+00	0.0166%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.47E-05	4.00E+00	1.39E-04	1.00E+00	0.0139%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	1.87E-04	4.00E+00	7.48E-04	1.00E+00	0.075%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	1.46E-05	4.00E+00	5.82E-05	1.00E+00	0.0058%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.34E-05	4.00E+00	5.36E-05	1.00E+00	0.0054%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	1.00E+00	0.0081%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	1.00E+00	0.0372%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	1.00E+00	0.0296%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	3.77E-04	4.00E+00	1.51E-03	1.00E+00	0.151%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	2.91E-05	4.00E+00	1.16E-04	1.00E+00	0.0116%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	1.00E+00	0.0098%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	1.00E+00	0.0157%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	1.00E+00	0.0167%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.47E-05	4.03E+00	1.40E-04	1.00E+00	0.0140%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.87E-04	4.03E+00	7.53E-04	1.00E+00	0.075%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	1.46E-05	4.03E+00	5.86E-05	1.00E+00	0.0059%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.34E-05	4.03E+00	5.39E-05	1.00E+00	0.0054%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	1.00E+00	0.0081%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	1.00E+00	0.0374%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	1.00E+00	0.0297%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	3.77E-04	4.03E+00	1.52E-03	1.00E+00	0.152%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	2.91E-05	4.03E+00	1.17E-04	1.00E+00	0.0117%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	1.00E+00	0.0099%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	1.00E+00	0.0158%

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0068%	--	--	1.46E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.014%	--	--	7.30E+03
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.009%	--	--	1.15E+04
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0057%	--	--	1.77E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0059%	--	--	1.69E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0062%	--	--	1.62E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.013%	--	--	7.41E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.013%	--	--	7.71E+03
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.017%	--	--	5.89E+03
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.011%	--	--	9.17E+03
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.011%	--	--	8.79E+03
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.012%	--	--	8.41E+03
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.018%	0.0166%	--	2.88E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.036%	0.0139%	--	1.99E+03
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.023%	0.075%	--	1.02E+03
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.015%	0.0058%	--	4.80E+03
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.016%	0.0054%	--	4.75E+03
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.016%	0.0081%	--	4.09E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.036%	0.0372%	--	1.37E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.034%	0.0296%	--	1.56E+03
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.045%	0.151%	--	5.10E+02
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.029%	0.0116%	--	2.47E+03
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.030%	0.0098%	--	2.50E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.032%	0.0157%	--	2.12E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.0068%	0.0167%	--	4.25E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.014%	0.0140%	--	3.61E+03
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.009%	0.0753%	--	1.19E+03
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.0057%	0.0059%	--	8.68E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.0059%	0.0054%	--	8.84E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.0062%	0.0081%	--	6.98E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.013%	0.0374%	--	1.96E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.013%	0.0297%	--	2.34E+03
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.017%	0.152%	--	5.92E+02
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.011%	0.0117%	--	4.42E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.011%	0.0099%	--	4.70E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.012%	0.0158%	--	3.61E+03

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.0068%	--	0.0013%	1.23E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.014%	--	0.0025%	6.16E+03
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.009%	--	0.0016%	9.73E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.0057%	--	0.0010%	1.49E+04
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.0059%	--	0.0011%	1.43E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.0062%	--	0.0011%	1.36E+04
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.013%	--	0.0025%	6.26E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.013%	--	0.0024%	6.51E+03
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.017%	--	0.0031%	4.97E+03
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.011%	--	0.0020%	7.74E+03
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.011%	--	0.0021%	7.42E+03
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.012%	--	0.0022%	7.10E+03
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.09E+06	--	0.0091%	0.0166%	0.018%	1.88E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	5.44E+05	--	0.018%	0.0139%	0.037%	1.15E+03
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	8.59E+05	--	0.011%	0.075%	0.023%	8.25E+02
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.32E+06	--	0.0075%	0.0058%	0.015%	2.77E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	1.26E+06	--	0.0078%	0.0054%	0.016%	2.70E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	1.20E+06	--	0.0082%	0.0081%	0.017%	2.43E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	5.52E+05	--	0.018%	0.0372%	0.036%	9.15E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	5.75E+05	--	0.017%	0.0296%	0.035%	1.01E+03
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	4.39E+05	--	0.023%	0.151%	0.046%	4.14E+02
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	6.83E+05	--	0.014%	0.0116%	0.029%	1.43E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	6.55E+05	--	0.015%	0.0098%	0.031%	1.41E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	6.26E+05	--	0.016%	0.0157%	0.032%	1.26E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	2.12E+06	--	0.0034%	0.0167%	0.018%	2.32E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.06E+06	--	0.0068%	0.0140%	0.037%	1.49E+03
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.67E+06	--	0.0043%	0.075%	0.023%	9.18E+02
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	2.56E+06	--	0.0028%	0.0059%	0.015%	3.60E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	2.45E+06	--	0.0030%	0.0054%	0.016%	3.53E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	2.34E+06	--	0.0031%	0.0081%	0.017%	3.12E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.07E+06	--	0.0067%	0.0374%	0.036%	1.12E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.12E+06	--	0.0065%	0.0297%	0.035%	1.25E+03
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	8.52E+05	--	0.008%	0.152%	0.046%	4.59E+02
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.33E+06	--	0.0055%	0.0117%	0.029%	1.85E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.27E+06	--	0.0057%	0.0099%	0.031%	1.85E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.22E+06	--	0.0059%	0.0158%	0.032%	1.62E+03

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	2.83E+06	4.60E+06	--	--	--	1.75E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.41E+06	2.30E+06	--	--	--	8.75E+03
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	2.23E+06	3.63E+06	--	--	--	1.38E+04
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	3.42E+06	5.56E+06	--	--	--	2.12E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	3.27E+06	5.32E+06	--	--	--	2.03E+04
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	3.13E+06	5.08E+06	--	--	--	1.94E+04
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	1.44E+06	2.33E+06	--	--	--	8.89E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.49E+06	2.43E+06	--	--	--	9.25E+03
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	1.14E+06	1.85E+06	--	--	--	7.06E+03
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.78E+06	2.88E+06	--	--	--	1.10E+04
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	1.70E+06	2.76E+06	--	--	--	1.05E+04
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	1.63E+06	2.64E+06	--	--	--	1.01E+04
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.50E+06	4.12E+07	--	--	--	4.86E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	2.75E+06	2.06E+07	--	--	--	2.42E+04
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	4.34E+06	3.25E+07	--	--	--	3.83E+04
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	6.65E+06	4.98E+07	--	--	--	5.87E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	6.36E+06	4.76E+07	--	--	--	5.61E+04
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	6.08E+06	4.55E+07	--	--	--	5.37E+04
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	2.79E+06	2.09E+07	--	--	--	2.46E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	2.90E+06	2.17E+07	--	--	--	2.56E+04
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	2.22E+06	1.66E+07	--	--	--	1.96E+04
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	3.45E+06	2.58E+07	--	--	--	3.05E+04
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	3.31E+06	2.48E+07	--	--	--	2.92E+04
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	3.16E+06	2.37E+07	--	--	--	2.79E+04

--Receptor not exposed via this pathway.
NA - Not Available.
NC - Not Calculated (No dose-response value).
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure. MOE values less than the target MOE of 100 are highlighted.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.
(b) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Long-term Exposure

Herbicide: **Fluroxypyr**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a)						Maximum Application Rate Scenario ARIs (a)					
AgDrift Scenario:	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**	**Aerial**	**Aerial**	**Aerial**	**Aerial**	**Ground**	**Ground**
Land Type (b):	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**Not applicable**	**Not applicable**	**Non-Forested**	**Non-Forested**	**Forested**	**Forested**	**ot applicab**	**Not applicable**
Equipment (c):	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**	**Plane**	**Helicopter**	**Plane**	**Helicopter**	**Low Boom**	**High Boom**
Hiker/Hunter (Adult)	14,624	7,301	11,528	17,671	16,907	16,164	7,415	7,714	5,888	9,173	8,790	8,407
Berry Picker (Child)	2,883	1,993	1,022	4,803	4,754	4,086	1,371	1,565	510	2,467	2,501	2,119
Berry Picker (Adult)	4,255	3,615	1,191	8,681	8,843	6,985	1,964	2,341	592	4,420	4,700	3,614
Angler (Adult)	12,343	6,162	9,730	14,914	14,269	13,643	6,258	6,511	4,970	7,742	7,419	7,096
Residential (Child)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Residential (Adult)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Native American (Child)	1,882	1,148	825	2,771	2,703	2,429	915	1,011	414	1,429	1,415	1,261
Native American (Adult)	2,318	1,493	918	3,601	3,534	3,117	1,115	1,251	459	1,854	1,853	1,617
Swimmer (Child)	17,529	8,752	13,818	21,182	20,266	19,376	8,888	9,246	7,058	10,996	10,537	10,078
Swimmer (Adult)	48,560	24,245	38,279	58,677	56,139	53,674	24,621	25,614	19,551	30,460	29,189	27,917

ARI - Aggregate Risk Index. Values less than one represent a level of concern. ARI does not include dermal exposure due to low toxicity. See Table 3-1.

(a) - Application rates are shown on Table 4-1 and are the same for each program.

(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.

(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.i./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.70E-01	1.90E-05	7.17E+01	2.32E-04	6.25E+00	2.70E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.70E-01	1.57E-05	7.17E+01	1.91E-04	6.25E+00	3.27E+04
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.70E-01	8.06E-05	7.17E+01	9.83E-04	6.25E+00	6.36E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.70E-01	6.72E-06	7.17E+01	8.19E-05	6.25E+00	7.63E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.70E-01	2.24E-06	7.17E+01	2.73E-05	6.25E+00	2.29E+05
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.70E-01	2.69E-05	7.17E+01	3.28E-04	6.25E+00	1.91E+04
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.70E-01	2.13E-05	7.17E+01	2.60E-04	6.25E+00	2.41E+04
Max	Aerial	Forested	Plane	Hiker/Hunter	1.70E-01	1.02E-04	7.17E+01	1.24E-03	6.25E+00	5.03E+03
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.70E-01	8.96E-06	7.17E+01	1.09E-04	6.25E+00	5.72E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.70E-01	1.46E-05	7.17E+01	1.78E-04	6.25E+00	3.51E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	1.70E-01	1.90E-05	1.87E+02	6.03E-04	6.25E+00	1.04E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.70E-01	1.57E-05	1.87E+02	4.98E-04	6.25E+00	1.25E+04
Typical	Aerial	Forested	Plane	Berry - child	1.70E-01	8.06E-05	1.87E+02	2.56E-03	6.25E+00	2.44E+03
Typical	Aerial	Forested	Helicopter	Berry - child	1.70E-01	6.72E-06	1.87E+02	2.13E-04	6.25E+00	2.93E+04
Typical	Ground	Not applicable	Low Boom	Berry - child	1.70E-01	2.24E-06	1.87E+02	7.11E-05	6.25E+00	8.79E+04
Typical	Ground	Not applicable	High Boom	Berry - child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	6.25E+00	5.86E+04
Max	Aerial	Non-Forested	Plane	Berry - child	1.70E-01	2.69E-05	1.87E+02	8.54E-04	6.25E+00	7.32E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.70E-01	2.13E-05	1.87E+02	6.76E-04	6.25E+00	9.25E+03
Max	Aerial	Forested	Plane	Berry - child	1.70E-01	1.02E-04	1.87E+02	3.23E-03	6.25E+00	1.93E+03
Max	Aerial	Forested	Helicopter	Berry - child	1.70E-01	8.96E-06	1.87E+02	2.84E-04	6.25E+00	2.20E+04
Max	Ground	Not applicable	Low Boom	Berry - child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	6.25E+00	5.86E+04
Max	Ground	Not applicable	High Boom	Berry - child	1.70E-01	1.46E-05	1.87E+02	4.63E-04	6.25E+00	1.35E+04
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.70E-01	1.90E-05	7.17E+01	2.32E-04	6.25E+00	2.70E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.70E-01	1.57E-05	7.17E+01	1.91E-04	6.25E+00	3.27E+04
Typical	Aerial	Forested	Plane	Berry - adult	1.70E-01	8.06E-05	7.17E+01	9.83E-04	6.25E+00	6.36E+03
Typical	Aerial	Forested	Helicopter	Berry - adult	1.70E-01	6.72E-06	7.17E+01	8.19E-05	6.25E+00	7.63E+04
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.70E-01	2.24E-06	7.17E+01	2.73E-05	6.25E+00	2.29E+05
Typical	Ground	Not applicable	High Boom	Berry - adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Aerial	Non-Forested	Plane	Berry - adult	1.70E-01	2.69E-05	7.17E+01	3.28E-04	6.25E+00	1.91E+04
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.70E-01	2.13E-05	7.17E+01	2.60E-04	6.25E+00	2.41E+04
Max	Aerial	Forested	Plane	Berry - adult	1.70E-01	1.02E-04	7.17E+01	1.24E-03	6.25E+00	5.03E+03
Max	Aerial	Forested	Helicopter	Berry - adult	1.70E-01	8.96E-06	7.17E+01	1.09E-04	6.25E+00	5.72E+04
Max	Ground	Not applicable	Low Boom	Berry - adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Ground	Not applicable	High Boom	Berry - adult	1.70E-01	1.46E-05	7.17E+01	1.78E-04	6.25E+00	3.51E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.i./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	1.70E-01	1.90E-05	7.17E+01	2.32E-04	6.25E+00	2.70E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	1.70E-01	1.57E-05	7.17E+01	1.91E-04	6.25E+00	3.27E+04
Typical	Aerial	Forested	Plane	Angler	1.70E-01	8.06E-05	7.17E+01	9.83E-04	6.25E+00	6.36E+03
Typical	Aerial	Forested	Helicopter	Angler	1.70E-01	6.72E-06	7.17E+01	8.19E-05	6.25E+00	7.63E+04
Typical	Ground	Not applicable	Low Boom	Angler	1.70E-01	2.24E-06	7.17E+01	2.73E-05	6.25E+00	2.29E+05
Typical	Ground	Not applicable	High Boom	Angler	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Aerial	Non-Forested	Plane	Angler	1.70E-01	2.69E-05	7.17E+01	3.28E-04	6.25E+00	1.91E+04
Max	Aerial	Non-Forested	Helicopter	Angler	1.70E-01	2.13E-05	7.17E+01	2.60E-04	6.25E+00	2.41E+04
Max	Aerial	Forested	Plane	Angler	1.70E-01	1.02E-04	7.17E+01	1.24E-03	6.25E+00	5.03E+03
Max	Aerial	Forested	Helicopter	Angler	1.70E-01	8.96E-06	7.17E+01	1.09E-04	6.25E+00	5.72E+04
Max	Ground	Not applicable	Low Boom	Angler	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Ground	Not applicable	High Boom	Angler	1.70E-01	1.46E-05	7.17E+01	1.78E-04	6.25E+00	3.51E+04
Typical	Aerial	Non-Forested	Plane	Res-child	1.70E-01	1.90E-05	1.87E+02	6.03E-04	6.25E+00	1.04E+04
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.70E-01	1.57E-05	1.87E+02	4.98E-04	6.25E+00	1.25E+04
Typical	Aerial	Forested	Plane	Res-child	1.70E-01	8.06E-05	1.87E+02	2.56E-03	6.25E+00	2.44E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.70E-01	6.72E-06	1.87E+02	2.13E-04	6.25E+00	2.93E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.70E-01	2.24E-06	1.87E+02	7.11E-05	6.25E+00	8.79E+04
Typical	Ground	Not applicable	High Boom	Res-child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	6.25E+00	5.86E+04
Max	Aerial	Non-Forested	Plane	Res-child	1.70E-01	2.69E-05	1.87E+02	8.54E-04	6.25E+00	7.32E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.70E-01	2.13E-05	1.87E+02	6.76E-04	6.25E+00	9.25E+03
Max	Aerial	Forested	Plane	Res-child	1.70E-01	1.02E-04	1.87E+02	3.23E-03	6.25E+00	1.93E+03
Max	Aerial	Forested	Helicopter	Res-child	1.70E-01	8.96E-06	1.87E+02	2.84E-04	6.25E+00	2.20E+04
Max	Ground	Not applicable	Low Boom	Res-child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	6.25E+00	5.86E+04
Max	Ground	Not applicable	High Boom	Res-child	1.70E-01	1.46E-05	1.87E+02	4.63E-04	6.25E+00	1.35E+04
Typical	Aerial	Non-Forested	Plane	Res-adult	1.70E-01	1.90E-05	7.17E+01	2.32E-04	6.25E+00	2.70E+04
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.70E-01	1.57E-05	7.17E+01	1.91E-04	6.25E+00	3.27E+04
Typical	Aerial	Forested	Plane	Res-adult	1.70E-01	8.06E-05	7.17E+01	9.83E-04	6.25E+00	6.36E+03
Typical	Aerial	Forested	Helicopter	Res-adult	1.70E-01	6.72E-06	7.17E+01	8.19E-05	6.25E+00	7.63E+04
Typical	Ground	Not applicable	Low Boom	Res-adult	1.70E-01	2.24E-06	7.17E+01	2.73E-05	6.25E+00	2.29E+05
Typical	Ground	Not applicable	High Boom	Res-adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Aerial	Non-Forested	Plane	Res-adult	1.70E-01	2.69E-05	7.17E+01	3.28E-04	6.25E+00	1.91E+04
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.70E-01	2.13E-05	7.17E+01	2.60E-04	6.25E+00	2.41E+04
Max	Aerial	Forested	Plane	Res-adult	1.70E-01	1.02E-04	7.17E+01	1.24E-03	6.25E+00	5.03E+03
Max	Aerial	Forested	Helicopter	Res-adult	1.70E-01	8.96E-06	7.17E+01	1.09E-04	6.25E+00	5.72E+04
Max	Ground	Not applicable	Low Boom	Res-adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Ground	Not applicable	High Boom	Res-adult	1.70E-01	1.46E-05	7.17E+01	1.78E-04	6.25E+00	3.51E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.i./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.70E-01	1.90E-05	1.87E+02	6.03E-04	6.25E+00	1.04E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.70E-01	1.57E-05	1.87E+02	4.98E-04	6.25E+00	1.25E+04
Typical	Aerial	Forested	Plane	N.A.-child	1.70E-01	8.06E-05	1.87E+02	2.56E-03	6.25E+00	2.44E+03
Typical	Aerial	Forested	Helicopter	N.A.-child	1.70E-01	6.72E-06	1.87E+02	2.13E-04	6.25E+00	2.93E+04
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.70E-01	2.24E-06	1.87E+02	7.11E-05	6.25E+00	8.79E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	6.25E+00	5.86E+04
Max	Aerial	Non-Forested	Plane	N.A.-child	1.70E-01	2.69E-05	1.87E+02	8.54E-04	6.25E+00	7.32E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.70E-01	2.13E-05	1.87E+02	6.76E-04	6.25E+00	9.25E+03
Max	Aerial	Forested	Plane	N.A.-child	1.70E-01	1.02E-04	1.87E+02	3.23E-03	6.25E+00	1.93E+03
Max	Aerial	Forested	Helicopter	N.A.-child	1.70E-01	8.96E-06	1.87E+02	2.84E-04	6.25E+00	2.20E+04
Max	Ground	Not applicable	Low Boom	N.A.-child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	6.25E+00	5.86E+04
Max	Ground	Not applicable	High Boom	N.A.-child	1.70E-01	1.46E-05	1.87E+02	4.63E-04	6.25E+00	1.35E+04
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.70E-01	1.90E-05	7.17E+01	2.32E-04	6.25E+00	2.70E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.70E-01	1.57E-05	7.17E+01	1.91E-04	6.25E+00	3.27E+04
Typical	Aerial	Forested	Plane	N.A.-adult	1.70E-01	8.06E-05	7.17E+01	9.83E-04	6.25E+00	6.36E+03
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.70E-01	6.72E-06	7.17E+01	8.19E-05	6.25E+00	7.63E+04
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.70E-01	2.24E-06	7.17E+01	2.73E-05	6.25E+00	2.29E+05
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.70E-01	2.69E-05	7.17E+01	3.28E-04	6.25E+00	1.91E+04
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.70E-01	2.13E-05	7.17E+01	2.60E-04	6.25E+00	2.41E+04
Max	Aerial	Forested	Plane	N.A.-adult	1.70E-01	1.02E-04	7.17E+01	1.24E-03	6.25E+00	5.03E+03
Max	Aerial	Forested	Helicopter	N.A.-adult	1.70E-01	8.96E-06	7.17E+01	1.09E-04	6.25E+00	5.72E+04
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	6.25E+00	1.53E+05
Max	Ground	Not applicable	High Boom	N.A.-adult	1.70E-01	1.46E-05	7.17E+01	1.78E-04	6.25E+00	3.51E+04

a.i. - active ingredient.
MOE - Margin of Exposure.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.i./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.70E-01	1.90E-05	4.75E-06	2.01E+01	1.63E-05	6.25E+00	3.85E+05
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.70E-01	1.57E-05	3.93E-06	2.01E+01	1.34E-05	6.25E+00	4.65E+05
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.70E-01	8.06E-05	2.02E-05	2.01E+01	6.90E-05	6.25E+00	9.06E+04
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.70E-01	6.72E-06	1.68E-06	2.01E+01	5.75E-06	6.25E+00	1.09E+06
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.70E-01	2.24E-06	5.60E-07	2.01E+01	1.92E-06	6.25E+00	3.26E+06
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.70E-01	3.36E-06	8.40E-07	2.01E+01	2.87E-06	6.25E+00	2.17E+06
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.70E-01	2.69E-05	6.73E-06	2.01E+01	2.30E-05	6.25E+00	2.72E+05
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.70E-01	2.13E-05	5.33E-06	2.01E+01	1.82E-05	6.25E+00	3.43E+05
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.70E-01	1.02E-04	2.55E-05	2.01E+01	8.72E-05	6.25E+00	7.17E+04
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.70E-01	8.96E-06	2.24E-06	2.01E+01	7.66E-06	6.25E+00	8.16E+05
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.70E-01	3.36E-06	8.40E-07	2.01E+01	2.87E-06	6.25E+00	2.17E+06
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.70E-01	1.46E-05	3.65E-06	2.01E+01	1.25E-05	6.25E+00	5.00E+05
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.70E-01	1.90E-05	4.75E-06	6.05E+01	4.89E-05	6.25E+00	1.28E+05
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.70E-01	1.57E-05	3.93E-06	6.05E+01	4.04E-05	6.25E+00	1.55E+05
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	1.70E-01	8.06E-05	2.02E-05	6.05E+01	2.07E-04	6.25E+00	3.01E+04
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.70E-01	6.72E-06	1.68E-06	6.05E+01	1.73E-05	6.25E+00	3.62E+05
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.70E-01	2.24E-06	5.60E-07	6.05E+01	5.76E-06	6.25E+00	1.09E+06
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.70E-01	3.36E-06	8.40E-07	6.05E+01	8.64E-06	6.25E+00	7.23E+05
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.70E-01	2.69E-05	6.73E-06	6.05E+01	6.92E-05	6.25E+00	9.04E+04
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.70E-01	2.13E-05	5.33E-06	6.05E+01	5.48E-05	6.25E+00	1.14E+05
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	1.70E-01	1.02E-04	2.55E-05	6.05E+01	2.62E-04	6.25E+00	2.38E+04
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.70E-01	8.96E-06	2.24E-06	6.05E+01	2.30E-05	6.25E+00	2.71E+05
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.70E-01	3.36E-06	8.40E-07	6.05E+01	8.64E-06	6.25E+00	7.23E+05
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.70E-01	1.46E-05	3.65E-06	6.05E+01	3.75E-05	6.25E+00	1.66E+05
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.70E-01	1.90E-05	4.75E-06	3.46E+01	2.79E-05	6.25E+00	2.24E+05
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.70E-01	1.57E-05	3.93E-06	3.46E+01	2.31E-05	6.25E+00	2.71E+05
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.70E-01	8.06E-05	2.02E-05	3.46E+01	1.19E-04	6.25E+00	5.27E+04
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.70E-01	6.72E-06	1.68E-06	3.46E+01	9.88E-06	6.25E+00	6.33E+05
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.70E-01	2.24E-06	5.60E-07	3.46E+01	3.29E-06	6.25E+00	1.90E+06
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.70E-01	3.36E-06	8.40E-07	3.46E+01	4.94E-06	6.25E+00	1.27E+06
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.70E-01	2.69E-05	6.73E-06	3.46E+01	3.95E-05	6.25E+00	1.58E+05
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.70E-01	2.13E-05	5.33E-06	3.46E+01	3.13E-05	6.25E+00	2.00E+05
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.70E-01	1.02E-04	2.55E-05	3.46E+01	1.50E-04	6.25E+00	4.17E+04
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.70E-01	8.96E-06	2.24E-06	3.46E+01	1.32E-05	6.25E+00	4.74E+05
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.70E-01	3.36E-06	8.40E-07	3.46E+01	4.94E-06	6.25E+00	1.27E+06
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.70E-01	1.46E-05	3.65E-06	3.46E+01	2.15E-05	6.25E+00	2.91E+05

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.i./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.70E-01	1.90E-05	4.75E-06	2.01E+01	1.63E-05	6.25E+00	3.85E+05
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.70E-01	1.57E-05	3.93E-06	2.01E+01	1.34E-05	6.25E+00	4.65E+05
Typical	Aerial	Forested	Plane	Angler	2.50E-01	1.70E-01	8.06E-05	2.02E-05	2.01E+01	6.90E-05	6.25E+00	9.06E+04
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	1.70E-01	6.72E-06	1.68E-06	2.01E+01	5.75E-06	6.25E+00	1.09E+06
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.70E-01	2.24E-06	5.60E-07	2.01E+01	1.92E-06	6.25E+00	3.26E+06
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.70E-01	3.36E-06	8.40E-07	2.01E+01	2.87E-06	6.25E+00	2.17E+06
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.70E-01	2.69E-05	6.73E-06	2.01E+01	2.30E-05	6.25E+00	2.72E+05
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.70E-01	2.13E-05	5.33E-06	2.01E+01	1.82E-05	6.25E+00	3.43E+05
Max	Aerial	Forested	Plane	Angler	2.50E-01	1.70E-01	1.02E-04	2.55E-05	2.01E+01	8.72E-05	6.25E+00	7.17E+04
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	1.70E-01	8.96E-06	2.24E-06	2.01E+01	7.66E-06	6.25E+00	8.16E+05
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.70E-01	3.36E-06	8.40E-07	2.01E+01	2.87E-06	6.25E+00	2.17E+06
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.70E-01	1.46E-05	3.65E-06	2.01E+01	1.25E-05	6.25E+00	5.00E+05
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.70E-01	1.90E-05	1.90E-07	5.94E+03	1.92E-04	6.25E+00	3.26E+04
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.70E-01	1.57E-05	1.57E-07	5.94E+03	1.59E-04	6.25E+00	3.94E+04
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	1.70E-01	8.06E-05	8.06E-07	5.94E+03	8.14E-04	6.25E+00	7.68E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.70E-01	6.72E-06	6.72E-08	5.94E+03	6.79E-05	6.25E+00	9.21E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.70E-01	2.24E-06	2.24E-08	5.94E+03	2.26E-05	6.25E+00	2.76E+05
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.70E-01	3.36E-06	3.36E-08	5.94E+03	3.39E-05	6.25E+00	1.84E+05
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.70E-01	2.69E-05	2.69E-07	5.94E+03	2.72E-04	6.25E+00	2.30E+04
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.70E-01	2.13E-05	2.13E-07	5.94E+03	2.15E-04	6.25E+00	2.91E+04
Max	Aerial	Forested	Plane	Res-child	1.00E-02	1.70E-01	1.02E-04	1.02E-06	5.94E+03	1.03E-03	6.25E+00	6.07E+03
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.70E-01	8.96E-06	8.96E-08	5.94E+03	9.05E-05	6.25E+00	6.91E+04
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.70E-01	3.36E-06	3.36E-08	5.94E+03	3.39E-05	6.25E+00	1.84E+05
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.70E-01	1.46E-05	1.46E-07	5.94E+03	1.47E-04	6.25E+00	4.24E+04
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.70E-01	1.90E-05	1.90E-07	3.40E+03	1.10E-04	6.25E+00	5.70E+04
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.70E-01	1.57E-05	1.57E-07	3.40E+03	9.06E-05	6.25E+00	6.90E+04
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	1.70E-01	8.06E-05	8.06E-07	3.40E+03	4.66E-04	6.25E+00	1.34E+04
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.70E-01	6.72E-06	6.72E-08	3.40E+03	3.88E-05	6.25E+00	1.61E+05
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.70E-01	2.24E-06	2.24E-08	3.40E+03	1.29E-05	6.25E+00	4.83E+05
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.70E-01	3.36E-06	3.36E-08	3.40E+03	1.94E-05	6.25E+00	3.22E+05
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.70E-01	2.69E-05	2.69E-07	3.40E+03	1.55E-04	6.25E+00	4.02E+04
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.70E-01	2.13E-05	2.13E-07	3.40E+03	1.23E-04	6.25E+00	5.08E+04
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	1.70E-01	1.02E-04	1.02E-06	3.40E+03	5.88E-04	6.25E+00	1.06E+04
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.70E-01	8.96E-06	8.96E-08	3.40E+03	5.17E-05	6.25E+00	1.21E+05
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.70E-01	3.36E-06	3.36E-08	3.40E+03	1.94E-05	6.25E+00	3.22E+05
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.70E-01	1.46E-05	1.46E-07	3.40E+03	8.43E-05	6.25E+00	7.41E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Foliage
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.i./kg-day)	Intermediate-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.70E-01	1.90E-05	4.75E-06	7.26E+01	5.86E-05	6.25E+00	1.07E+05
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.70E-01	1.57E-05	3.93E-06	7.26E+01	4.84E-05	6.25E+00	1.29E+05
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.70E-01	8.06E-05	2.02E-05	7.26E+01	2.49E-04	6.25E+00	2.51E+04
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.70E-01	6.72E-06	1.68E-06	7.26E+01	2.07E-05	6.25E+00	3.01E+05
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.70E-01	2.24E-06	5.60E-07	7.26E+01	6.91E-06	6.25E+00	9.04E+05
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.70E-01	3.36E-06	8.40E-07	7.26E+01	1.04E-05	6.25E+00	6.03E+05
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.70E-01	2.69E-05	6.73E-06	7.26E+01	8.30E-05	6.25E+00	7.53E+04
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.70E-01	2.13E-05	5.33E-06	7.26E+01	6.57E-05	6.25E+00	9.51E+04
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.70E-01	1.02E-04	2.55E-05	7.26E+01	3.14E-04	6.25E+00	1.99E+04
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.70E-01	8.96E-06	2.24E-06	7.26E+01	2.76E-05	6.25E+00	2.26E+05
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.70E-01	3.36E-06	8.40E-07	7.26E+01	1.04E-05	6.25E+00	6.03E+05
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.70E-01	1.46E-05	3.65E-06	7.26E+01	4.50E-05	6.25E+00	1.39E+05
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.70E-01	1.90E-05	4.75E-06	4.15E+01	3.35E-05	6.25E+00	1.86E+05
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.70E-01	1.57E-05	3.93E-06	4.15E+01	2.77E-05	6.25E+00	2.26E+05
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.70E-01	8.06E-05	2.02E-05	4.15E+01	1.42E-04	6.25E+00	4.39E+04
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.70E-01	6.72E-06	1.68E-06	4.15E+01	1.19E-05	6.25E+00	5.27E+05
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.70E-01	2.24E-06	5.60E-07	4.15E+01	3.95E-06	6.25E+00	1.58E+06
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.70E-01	3.36E-06	8.40E-07	4.15E+01	5.93E-06	6.25E+00	1.05E+06
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.70E-01	2.69E-05	6.73E-06	4.15E+01	4.75E-05	6.25E+00	1.32E+05
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.70E-01	2.13E-05	5.33E-06	4.15E+01	3.76E-05	6.25E+00	1.66E+05
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.70E-01	1.02E-04	2.55E-05	4.15E+01	1.80E-04	6.25E+00	3.48E+04
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.70E-01	8.96E-06	2.24E-06	4.15E+01	1.58E-05	6.25E+00	3.95E+05
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.70E-01	3.36E-06	8.40E-07	4.15E+01	5.93E-06	6.25E+00	1.05E+06
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.70E-01	1.46E-05	3.65E-06	4.15E+01	2.58E-05	6.25E+00	2.43E+05

a.i. - active ingredient.
MOE - Margin of Exposure.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentratio (Cw) (mg a.i./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.i./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	6.41E-06	1.95E-03	1.00E-03	4.40E+02	5.50E-09	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	6.41E-06	1.91E-03	1.00E-03	4.40E+02	5.38E-09	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-child	6.41E-06	2.28E-03	1.00E-03	4.40E+02	6.41E-09	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-child	6.41E-06	1.74E-03	1.00E-03	4.40E+02	4.90E-09	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-child	6.41E-06	1.74E-03	1.00E-03	4.40E+02	4.90E-09	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-child	6.41E-06	1.76E-03	1.00E-03	4.40E+02	4.95E-09	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-child	6.41E-06	2.61E-03	1.00E-03	4.40E+02	7.36E-09	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	6.41E-06	2.55E-03	1.00E-03	4.40E+02	7.18E-09	NA	NC
Max	Aerial	Forested	Plane	Swimmer-child	6.41E-06	2.99E-03	1.00E-03	4.40E+02	8.44E-09	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-child	6.41E-06	2.32E-03	1.00E-03	4.40E+02	6.53E-09	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-child	6.41E-06	2.32E-03	1.00E-03	4.40E+02	6.53E-09	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-child	6.41E-06	2.34E-03	1.00E-03	4.40E+02	6.60E-09	NA	NC
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	6.41E-06	1.95E-03	1.00E-03	2.26E+02	2.83E-09	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	6.41E-06	1.91E-03	1.00E-03	2.26E+02	2.77E-09	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-adult	6.41E-06	2.28E-03	1.00E-03	2.26E+02	3.30E-09	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-adult	6.41E-06	1.74E-03	1.00E-03	2.26E+02	2.52E-09	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	6.41E-06	1.74E-03	1.00E-03	2.26E+02	2.52E-09	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-adult	6.41E-06	1.76E-03	1.00E-03	2.26E+02	2.55E-09	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-adult	6.41E-06	2.61E-03	1.00E-03	2.26E+02	3.79E-09	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	6.41E-06	2.55E-03	1.00E-03	2.26E+02	3.70E-09	NA	NC
Max	Aerial	Forested	Plane	Swimmer-adult	6.41E-06	2.99E-03	1.00E-03	2.26E+02	4.34E-09	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-adult	6.41E-06	2.32E-03	1.00E-03	2.26E+02	3.36E-09	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-adult	6.41E-06	2.32E-03	1.00E-03	2.26E+02	3.36E-09	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-adult	6.41E-06	2.34E-03	1.00E-03	2.26E+02	3.40E-09	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American-child	6.41E-06	1.95E-03	1.00E-03	1.14E+03	1.43E-08	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American-child	6.41E-06	1.91E-03	1.00E-03	1.14E+03	1.40E-08	NA	NC
Typical	Aerial	Forested	Plane	N.American-child	6.41E-06	2.28E-03	1.00E-03	1.14E+03	1.67E-08	NA	NC
Typical	Aerial	Forested	Helicopter	N.American-child	6.41E-06	1.74E-03	1.00E-03	1.14E+03	1.27E-08	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American-child	6.41E-06	1.74E-03	1.00E-03	1.14E+03	1.27E-08	NA	NC
Typical	Ground	Not applicable	High Boom	N.American-child	6.41E-06	1.76E-03	1.00E-03	1.14E+03	1.29E-08	NA	NC
Max	Aerial	Non-Forested	Plane	N.American-child	6.41E-06	2.61E-03	1.00E-03	1.14E+03	1.91E-08	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American-child	6.41E-06	2.55E-03	1.00E-03	1.14E+03	1.87E-08	NA	NC
Max	Aerial	Forested	Plane	N.American-child	6.41E-06	2.99E-03	1.00E-03	1.14E+03	2.19E-08	NA	NC
Max	Aerial	Forested	Helicopter	N.American-child	6.41E-06	2.32E-03	1.00E-03	1.14E+03	1.70E-08	NA	NC
Max	Ground	Not applicable	Low Boom	N.American-child	6.41E-06	2.32E-03	1.00E-03	1.14E+03	1.70E-08	NA	NC
Max	Ground	Not applicable	High Boom	N.American-child	6.41E-06	2.34E-03	1.00E-03	1.14E+03	1.72E-08	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Intermediate-Term Water Concentratio (Cw) (mg a.i./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.i./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	6.41E-06	1.95E-03	1.00E-03	5.89E+02	7.36E-09	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	6.41E-06	1.91E-03	1.00E-03	5.89E+02	7.20E-09	NA	NC
Typical	Aerial	Forested	Plane	N.American-adult	6.41E-06	2.28E-03	1.00E-03	5.89E+02	8.58E-09	NA	NC
Typical	Aerial	Forested	Helicopter	N.American-adult	6.41E-06	1.74E-03	1.00E-03	5.89E+02	6.56E-09	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American-adult	6.41E-06	1.74E-03	1.00E-03	5.89E+02	6.55E-09	NA	NC
Typical	Ground	Not applicable	High Boom	N.American-adult	6.41E-06	1.76E-03	1.00E-03	5.89E+02	6.63E-09	NA	NC
Max	Aerial	Non-Forested	Plane	N.American-adult	6.41E-06	2.61E-03	1.00E-03	5.89E+02	9.85E-09	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American-adult	6.41E-06	2.55E-03	1.00E-03	5.89E+02	9.61E-09	NA	NC
Max	Aerial	Forested	Plane	N.American-adult	6.41E-06	2.99E-03	1.00E-03	5.89E+02	1.13E-08	NA	NC
Max	Aerial	Forested	Helicopter	N.American-adult	6.41E-06	2.32E-03	1.00E-03	5.89E+02	8.73E-09	NA	NC
Max	Ground	Not applicable	Low Boom	N.American-adult	6.41E-06	2.32E-03	1.00E-03	5.89E+02	8.73E-09	NA	NC
Max	Ground	Not applicable	High Boom	N.American-adult	6.41E-06	2.34E-03	1.00E-03	5.89E+02	8.83E-09	NA	NC

a.i. - active ingredient.
MOE - Margin of Exposure.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.i./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.i./kg-day)	Intermediate-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.95E-03	8.00E-03	1.56E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.91E-03	8.00E-03	1.53E-05	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-child	2.28E-03	8.00E-03	1.82E-05	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.74E-03	8.00E-03	1.39E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.74E-03	8.00E-03	1.39E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.76E-03	8.00E-03	1.41E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.61E-03	8.00E-03	2.09E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.55E-03	8.00E-03	2.04E-05	NA	NC
Max	Aerial	Forested	Plane	Swimmer-child	2.99E-03	8.00E-03	2.40E-05	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-child	2.32E-03	8.00E-03	1.85E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.32E-03	8.00E-03	1.85E-05	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-child	2.34E-03	8.00E-03	1.87E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.95E-03	8.93E-04	1.74E-06	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.91E-03	8.93E-04	1.70E-06	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-adult	2.28E-03	8.93E-04	2.03E-06	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.74E-03	8.93E-04	1.55E-06	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.74E-03	8.93E-04	1.55E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.76E-03	8.93E-04	1.57E-06	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.61E-03	8.93E-04	2.33E-06	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.55E-03	8.93E-04	2.28E-06	NA	NC
Max	Aerial	Forested	Plane	Swimmer-adult	2.99E-03	8.93E-04	2.67E-06	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.32E-03	8.93E-04	2.07E-06	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.32E-03	8.93E-04	2.07E-06	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.34E-03	8.93E-04	2.09E-06	NA	NC

a.i. - active ingredient.
MOE - Margin of Exposure.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.i./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.95E-03	2.52E-02	4.91E-05	1.18E-01	0.0416%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.91E-03	2.52E-02	4.80E-05	1.18E-01	0.0407%
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.28E-03	2.52E-02	5.72E-05	1.18E-01	0.0485%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.74E-03	2.52E-02	4.37E-05	1.18E-01	0.0371%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.74E-03	2.52E-02	4.37E-05	1.18E-01	0.0370%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.76E-03	2.52E-02	4.42E-05	1.18E-01	0.0374%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.61E-03	2.52E-02	6.57E-05	1.18E-01	0.0557%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.55E-03	2.52E-02	6.41E-05	1.18E-01	0.0543%
Max	Aerial	Forested	Plane	Hiker/Hunter	2.99E-03	2.52E-02	7.53E-05	1.18E-01	0.064%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.32E-03	2.52E-02	5.83E-05	1.18E-01	0.0494%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.32E-03	2.52E-02	5.82E-05	1.18E-01	0.0494%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.34E-03	2.52E-02	5.89E-05	1.18E-01	0.0499%
Typical	Aerial	Non-Forested	Plane	Berry - child	1.95E-03	6.67E-02	1.30E-04	1.18E-01	0.110%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.91E-03	6.67E-02	1.27E-04	1.18E-01	0.108%
Typical	Aerial	Forested	Plane	Berry - child	2.28E-03	6.67E-02	1.52E-04	1.18E-01	0.129%
Typical	Aerial	Forested	Helicopter	Berry - child	1.74E-03	6.67E-02	1.16E-04	1.18E-01	0.098%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.74E-03	6.67E-02	1.16E-04	1.18E-01	0.098%
Typical	Ground	Not applicable	High Boom	Berry - child	1.76E-03	6.67E-02	1.17E-04	1.18E-01	0.099%
Max	Aerial	Non-Forested	Plane	Berry - child	2.61E-03	6.67E-02	1.74E-04	1.18E-01	0.147%
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.55E-03	6.67E-02	1.70E-04	1.18E-01	0.144%
Max	Aerial	Forested	Plane	Berry - child	2.99E-03	6.67E-02	2.00E-04	1.18E-01	0.169%
Max	Aerial	Forested	Helicopter	Berry - child	2.32E-03	6.67E-02	1.54E-04	1.18E-01	0.131%
Max	Ground	Not applicable	Low Boom	Berry - child	2.32E-03	6.67E-02	1.54E-04	1.18E-01	0.131%
Max	Ground	Not applicable	High Boom	Berry - child	2.34E-03	6.67E-02	1.56E-04	1.18E-01	0.132%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.95E-03	2.52E-02	4.91E-05	1.18E-01	0.0416%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.91E-03	2.52E-02	4.80E-05	1.18E-01	0.0407%
Typical	Aerial	Forested	Plane	Berry - adult	2.28E-03	2.52E-02	5.72E-05	1.18E-01	0.0485%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.74E-03	2.52E-02	4.37E-05	1.18E-01	0.0371%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.74E-03	2.52E-02	4.37E-05	1.18E-01	0.0370%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.76E-03	2.52E-02	4.42E-05	1.18E-01	0.0374%
Max	Aerial	Non-Forested	Plane	Berry - adult	2.61E-03	2.52E-02	6.57E-05	1.18E-01	0.0557%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.55E-03	2.52E-02	6.41E-05	1.18E-01	0.0543%
Max	Aerial	Forested	Plane	Berry - adult	2.99E-03	2.52E-02	7.53E-05	1.18E-01	0.064%
Max	Aerial	Forested	Helicopter	Berry - adult	2.32E-03	2.52E-02	5.83E-05	1.18E-01	0.0494%
Max	Ground	Not applicable	Low Boom	Berry - adult	2.32E-03	2.52E-02	5.82E-05	1.18E-01	0.0494%
Max	Ground	Not applicable	High Boom	Berry - adult	2.34E-03	2.52E-02	5.89E-05	1.18E-01	0.0499%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Drinking Water Ingestion
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.i./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.95E-03	2.52E-02	4.91E-05	1.18E-01	0.0416%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.91E-03	2.52E-02	4.80E-05	1.18E-01	0.0407%
Typical	Aerial	Forested	Plane	Angler	2.28E-03	2.52E-02	5.72E-05	1.18E-01	0.0485%
Typical	Aerial	Forested	Helicopter	Angler	1.74E-03	2.52E-02	4.37E-05	1.18E-01	0.0371%
Typical	Ground	Not applicable	Low Boom	Angler	1.74E-03	2.52E-02	4.37E-05	1.18E-01	0.0370%
Typical	Ground	Not applicable	High Boom	Angler	1.76E-03	2.52E-02	4.42E-05	1.18E-01	0.0374%
Max	Aerial	Non-Forested	Plane	Angler	2.61E-03	2.52E-02	6.57E-05	1.18E-01	0.0557%
Max	Aerial	Non-Forested	Helicopter	Angler	2.55E-03	2.52E-02	6.41E-05	1.18E-01	0.0543%
Max	Aerial	Forested	Plane	Angler	2.99E-03	2.52E-02	7.53E-05	1.18E-01	0.064%
Max	Aerial	Forested	Helicopter	Angler	2.32E-03	2.52E-02	5.83E-05	1.18E-01	0.0494%
Max	Ground	Not applicable	Low Boom	Angler	2.32E-03	2.52E-02	5.82E-05	1.18E-01	0.0494%
Max	Ground	Not applicable	High Boom	Angler	2.34E-03	2.52E-02	5.89E-05	1.18E-01	0.0499%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.95E-03	3.33E-02	6.51E-05	1.18E-01	0.0551%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.91E-03	3.33E-02	6.36E-05	1.18E-01	0.0539%
Typical	Aerial	Forested	Plane	N.American - child	2.28E-03	3.33E-02	7.58E-05	1.18E-01	0.0643%
Typical	Aerial	Forested	Helicopter	N.American - child	1.74E-03	3.33E-02	5.80E-05	1.18E-01	0.0491%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.74E-03	3.33E-02	5.79E-05	1.18E-01	0.0491%
Typical	Ground	Not applicable	High Boom	N.American - child	1.76E-03	3.33E-02	5.86E-05	1.18E-01	0.0496%
Max	Aerial	Non-Forested	Plane	N.American - child	2.61E-03	3.33E-02	8.70E-05	1.18E-01	0.074%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.55E-03	3.33E-02	8.49E-05	1.18E-01	0.072%
Max	Aerial	Forested	Plane	N.American - child	2.99E-03	3.33E-02	9.98E-05	1.18E-01	0.085%
Max	Aerial	Forested	Helicopter	N.American - child	2.32E-03	3.33E-02	7.72E-05	1.18E-01	0.0654%
Max	Ground	Not applicable	Low Boom	N.American - child	2.32E-03	3.33E-02	7.72E-05	1.18E-01	0.0654%
Max	Ground	Not applicable	High Boom	N.American - child	2.34E-03	3.33E-02	7.80E-05	1.18E-01	0.066%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.95E-03	1.26E-02	2.46E-05	1.18E-01	0.0208%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.91E-03	1.26E-02	2.40E-05	1.18E-01	0.0203%
Typical	Aerial	Forested	Plane	N.American - adult	2.28E-03	1.26E-02	2.86E-05	1.18E-01	0.0243%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.74E-03	1.26E-02	2.19E-05	1.18E-01	0.0185%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.74E-03	1.26E-02	2.19E-05	1.18E-01	0.0185%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.76E-03	1.26E-02	2.21E-05	1.18E-01	0.0187%
Max	Aerial	Non-Forested	Plane	N.American - adult	2.61E-03	1.26E-02	3.28E-05	1.18E-01	0.0278%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.55E-03	1.26E-02	3.20E-05	1.18E-01	0.0272%
Max	Aerial	Forested	Plane	N.American - adult	2.99E-03	1.26E-02	3.77E-05	1.18E-01	0.0319%
Max	Aerial	Forested	Helicopter	N.American - adult	2.32E-03	1.26E-02	2.91E-05	1.18E-01	0.0247%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.32E-03	1.26E-02	2.91E-05	1.18E-01	0.0247%
Max	Ground	Not applicable	High Boom	N.American - adult	2.34E-03	1.26E-02	2.94E-05	1.18E-01	0.0250%

a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Fish
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Intermediate-Term Water Concentration (Cw) (mg a.i./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.95E-03	1.00E+00	1.00E-06	7.67E+02	1.50E-06	1.18E-01	0.00127%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.91E-03	1.00E+00	1.00E-06	7.67E+02	1.46E-06	1.18E-01	0.00124%
Typical	Aerial	Forested	Plane	Angler	2.28E-03	1.00E+00	1.00E-06	7.67E+02	1.75E-06	1.18E-01	0.00148%
Typical	Aerial	Forested	Helicopter	Angler	1.74E-03	1.00E+00	1.00E-06	7.67E+02	1.33E-06	1.18E-01	0.00113%
Typical	Ground	Not applicable	Low Boom	Angler	1.74E-03	1.00E+00	1.00E-06	7.67E+02	1.33E-06	1.18E-01	0.00113%
Typical	Ground	Not applicable	High Boom	Angler	1.76E-03	1.00E+00	1.00E-06	7.67E+02	1.35E-06	1.18E-01	0.00114%
Max	Aerial	Non-Forested	Plane	Angler	2.61E-03	1.00E+00	1.00E-06	7.67E+02	2.00E-06	1.18E-01	0.00170%
Max	Aerial	Non-Forested	Helicopter	Angler	2.55E-03	1.00E+00	1.00E-06	7.67E+02	1.95E-06	1.18E-01	0.00166%
Max	Aerial	Forested	Plane	Angler	2.99E-03	1.00E+00	1.00E-06	7.67E+02	2.30E-06	1.18E-01	0.00195%
Max	Aerial	Forested	Helicopter	Angler	2.32E-03	1.00E+00	1.00E-06	7.67E+02	1.78E-06	1.18E-01	0.00151%
Max	Ground	Not applicable	Low Boom	Angler	2.32E-03	1.00E+00	1.00E-06	7.67E+02	1.78E-06	1.18E-01	0.00151%
Max	Ground	Not applicable	High Boom	Angler	2.34E-03	1.00E+00	1.00E-06	7.67E+02	1.80E-06	1.18E-01	0.00152%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.95E-03	1.00E+00	1.00E-06	1.11E+04	2.17E-05	1.18E-01	0.0184%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.91E-03	1.00E+00	1.00E-06	1.11E+04	2.12E-05	1.18E-01	0.0180%
Typical	Aerial	Forested	Plane	N.American - child	2.28E-03	1.00E+00	1.00E-06	1.11E+04	2.53E-05	1.18E-01	0.0215%
Typical	Aerial	Forested	Helicopter	N.American - child	1.74E-03	1.00E+00	1.00E-06	1.11E+04	1.94E-05	1.18E-01	0.0164%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.74E-03	1.00E+00	1.00E-06	1.11E+04	1.93E-05	1.18E-01	0.0164%
Typical	Ground	Not applicable	High Boom	N.American - child	1.76E-03	1.00E+00	1.00E-06	1.11E+04	1.96E-05	1.18E-01	0.0166%
Max	Aerial	Non-Forested	Plane	N.American - child	2.61E-03	1.00E+00	1.00E-06	1.11E+04	2.91E-05	1.18E-01	0.0246%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.55E-03	1.00E+00	1.00E-06	1.11E+04	2.84E-05	1.18E-01	0.0240%
Max	Aerial	Forested	Plane	N.American - child	2.99E-03	1.00E+00	1.00E-06	1.11E+04	3.33E-05	1.18E-01	0.0282%
Max	Aerial	Forested	Helicopter	N.American - child	2.32E-03	1.00E+00	1.00E-06	1.11E+04	2.58E-05	1.18E-01	0.0218%
Max	Ground	Not applicable	Low Boom	N.American - child	2.32E-03	1.00E+00	1.00E-06	1.11E+04	2.58E-05	1.18E-01	0.0218%
Max	Ground	Not applicable	High Boom	N.American - child	2.34E-03	1.00E+00	1.00E-06	1.11E+04	2.61E-05	1.18E-01	0.0221%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.95E-03	1.00E+00	1.00E-06	1.11E+04	2.17E-05	1.18E-01	0.0184%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.91E-03	1.00E+00	1.00E-06	1.11E+04	2.12E-05	1.18E-01	0.0180%
Typical	Aerial	Forested	Plane	N.American - adult	2.28E-03	1.00E+00	1.00E-06	1.11E+04	2.53E-05	1.18E-01	0.0215%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.74E-03	1.00E+00	1.00E-06	1.11E+04	1.94E-05	1.18E-01	0.0164%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.74E-03	1.00E+00	1.00E-06	1.11E+04	1.93E-05	1.18E-01	0.0164%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.76E-03	1.00E+00	1.00E-06	1.11E+04	1.96E-05	1.18E-01	0.0166%
Max	Aerial	Non-Forested	Plane	N.American - adult	2.61E-03	1.00E+00	1.00E-06	1.11E+04	2.91E-05	1.18E-01	0.0246%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.55E-03	1.00E+00	1.00E-06	1.11E+04	2.84E-05	1.18E-01	0.0240%
Max	Aerial	Forested	Plane	N.American - adult	2.99E-03	1.00E+00	1.00E-06	1.11E+04	3.33E-05	1.18E-01	0.0282%
Max	Aerial	Forested	Helicopter	N.American - adult	2.32E-03	1.00E+00	1.00E-06	1.11E+04	2.58E-05	1.18E-01	0.0218%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.32E-03	1.00E+00	1.00E-06	1.11E+04	2.58E-05	1.18E-01	0.0218%
Max	Ground	Not applicable	High Boom	N.American - adult	2.34E-03	1.00E+00	1.00E-06	1.11E+04	2.61E-05	1.18E-01	0.0221%

a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	1.90E-05	4.00E+00	7.60E-05	1.18E-01	0.0644%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.57E-05	4.00E+00	6.28E-05	1.18E-01	0.0532%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	1.18E-01	0.2734%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	1.18E-01	0.0228%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.24E-06	4.00E+00	8.96E-06	1.18E-01	0.0076%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	1.18E-01	0.0114%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	2.69E-05	4.00E+00	1.08E-04	1.18E-01	0.0912%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	2.13E-05	4.00E+00	8.52E-05	1.18E-01	0.0722%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.02E-04	4.00E+00	4.08E-04	1.18E-01	0.3455%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	1.18E-01	0.0304%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	1.18E-01	0.0114%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.46E-05	4.00E+00	5.84E-05	1.18E-01	0.0495%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	1.90E-05	4.03E+00	7.65E-05	1.18E-01	0.0648%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.57E-05	4.03E+00	6.32E-05	1.18E-01	0.0536%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	1.18E-01	0.2751%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	1.18E-01	0.0229%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.24E-06	4.03E+00	9.02E-06	1.18E-01	0.0076%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	1.18E-01	0.0115%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	2.69E-05	4.03E+00	1.08E-04	1.18E-01	0.0918%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	1.18E-01	0.0727%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.02E-04	4.03E+00	4.10E-04	1.18E-01	0.3477%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	1.18E-01	0.0306%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	1.18E-01	0.0115%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.46E-05	4.03E+00	5.88E-05	1.18E-01	0.0498%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Pathway: Ingestion of Berries
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	1.90E-05	4.00E+00	7.60E-05	1.18E-01	0.0644%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.57E-05	4.00E+00	6.28E-05	1.18E-01	0.0532%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	1.18E-01	0.2734%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	1.18E-01	0.0228%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.24E-06	4.00E+00	8.96E-06	1.18E-01	0.0076%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	1.18E-01	0.0114%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	2.69E-05	4.00E+00	1.08E-04	1.18E-01	0.0912%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	2.13E-05	4.00E+00	8.52E-05	1.18E-01	0.0722%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.02E-04	4.00E+00	4.08E-04	1.18E-01	0.3455%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	1.18E-01	0.0304%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	1.18E-01	0.0114%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.46E-05	4.00E+00	5.84E-05	1.18E-01	0.0495%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	1.90E-05	4.03E+00	7.65E-05	1.18E-01	0.0648%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.57E-05	4.03E+00	6.32E-05	1.18E-01	0.0536%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	1.18E-01	0.2751%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	1.18E-01	0.0229%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.24E-06	4.03E+00	9.02E-06	1.18E-01	0.0076%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	1.18E-01	0.0115%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	2.69E-05	4.03E+00	1.08E-04	1.18E-01	0.0918%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	1.18E-01	0.0727%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.02E-04	4.03E+00	4.10E-04	1.18E-01	0.3477%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	1.18E-01	0.0306%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	1.18E-01	0.0115%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.46E-05	4.03E+00	5.88E-05	1.18E-01	0.0498%

a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	2.70E+04	3.85E+05	--	--	0.0416%	--	--	2.28E+02
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	3.27E+04	4.65E+05	--	--	0.0407%	--	--	2.71E+02
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	6.36E+03	9.06E+04	--	--	0.0485%	--	--	5.78E+01
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	7.63E+04	1.09E+06	--	--	0.0371%	--	--	5.64E+02
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	2.29E+05	3.26E+06	--	--	0.0370%	--	--	1.19E+03
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	1.53E+05	2.17E+06	--	--	0.0374%	--	--	9.30E+02
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	1.91E+04	2.72E+05	--	--	0.0557%	--	--	1.62E+02
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	2.41E+04	3.43E+05	--	--	0.0543%	--	--	2.00E+02
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	5.03E+03	7.17E+04	--	--	0.064%	--	--	4.56E+01
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	5.72E+04	8.16E+05	--	--	0.0494%	--	--	4.23E+02
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	1.53E+05	2.17E+06	--	--	0.0494%	--	--	8.37E+02
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	3.51E+04	5.00E+05	--	--	0.0499%	--	--	2.82E+02
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	1.04E+04	1.28E+05	--	--	0.110%	0.0644%	--	8.21E+01
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	1.25E+04	1.55E+05	--	--	0.108%	0.0532%	--	9.78E+01
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	2.44E+03	3.01E+04	--	--	0.129%	0.2734%	--	2.07E+01
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	2.93E+04	3.62E+05	--	--	0.098%	0.02278%	--	2.04E+02
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	8.79E+04	1.09E+06	--	--	0.098%	0.00759%	--	4.37E+02
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	5.86E+04	7.23E+05	--	--	0.099%	0.01139%	--	3.39E+02
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	7.32E+03	9.04E+04	--	--	0.147%	0.0912%	--	5.83E+01
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	9.25E+03	1.14E+05	--	--	0.144%	0.0722%	--	7.22E+01
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	1.93E+03	2.38E+04	--	--	0.169%	0.345%	--	1.64E+01
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	2.20E+04	2.71E+05	--	--	0.131%	0.0304%	--	1.53E+02
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	5.86E+04	7.23E+05	--	--	0.131%	0.0114%	--	3.06E+02
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	1.35E+04	1.66E+05	--	--	0.132%	0.0495%	--	1.02E+02
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	2.70E+04	2.24E+05	--	--	0.0416%	0.0648%	--	1.92E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	3.27E+04	2.71E+05	--	--	0.0407%	0.0536%	--	2.29E+02
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	6.36E+03	5.27E+04	--	--	0.0485%	0.2751%	--	4.79E+01
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	7.63E+04	6.33E+05	--	--	0.0371%	0.02292%	--	4.83E+02
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	2.29E+05	1.90E+06	--	--	0.0370%	0.00764%	--	1.07E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	1.53E+05	1.27E+06	--	--	0.0374%	0.01146%	--	8.17E+02
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	1.91E+04	1.58E+05	--	--	0.0557%	0.0918%	--	1.36E+02
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	2.41E+04	2.00E+05	--	--	0.0543%	0.0727%	--	1.69E+02
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	5.03E+03	4.17E+04	--	--	0.064%	0.348%	--	3.79E+01
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	5.72E+04	4.74E+05	--	--	0.0494%	0.0306%	--	3.63E+02
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	1.53E+05	1.27E+06	--	--	0.0494%	0.0115%	--	7.45E+02
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	3.51E+04	2.91E+05	--	--	0.0499%	0.0498%	--	2.39E+02

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+02	2.70E+04	3.85E+05	--	--	0.0416%	--	0.00127%	2.28E+02
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	3.27E+04	4.65E+05	--	--	0.0407%	--	0.00124%	2.71E+02
Typical	Aerial	Forested	Plane	Angler	1.00E+02	6.36E+03	9.06E+04	--	--	0.0485%	--	0.00148%	5.77E+01
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	7.63E+04	1.09E+06	--	--	0.0371%	--	0.00113%	5.60E+02
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	2.29E+05	3.26E+06	--	--	0.0370%	--	0.00113%	1.18E+03
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	1.53E+05	2.17E+06	--	--	0.0374%	--	0.00114%	9.20E+02
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	1.91E+04	2.72E+05	--	--	0.0557%	--	0.00170%	1.62E+02
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	2.41E+04	3.43E+05	--	--	0.0543%	--	0.00166%	2.00E+02
Max	Aerial	Forested	Plane	Angler	1.00E+02	5.03E+03	7.17E+04	--	--	0.0638%	--	0.00195%	4.56E+01
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	5.72E+04	8.16E+05	--	--	0.0494%	--	0.00151%	4.20E+02
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	1.53E+05	2.17E+06	--	--	0.0494%	--	0.00151%	8.27E+02
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	3.51E+04	5.00E+05	--	--	0.0499%	--	0.00152%	2.81E+02
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+02	1.04E+04	3.26E+04	--	--	--	--	--	7.86E+01
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	1.25E+04	3.94E+04	--	--	--	--	--	9.52E+01
Typical	Aerial	Forested	Plane	Res-child	1.00E+02	2.44E+03	7.68E+03	--	--	--	--	--	1.85E+01
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+02	2.93E+04	9.21E+04	--	--	--	--	--	2.22E+02
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+02	8.79E+04	2.76E+05	--	--	--	--	--	6.67E+02
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+02	5.86E+04	1.84E+05	--	--	--	--	--	4.45E+02
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+02	7.32E+03	2.30E+04	--	--	--	--	--	5.55E+01
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	9.25E+03	2.91E+04	--	--	--	--	--	7.01E+01
Max	Aerial	Forested	Plane	Res-child	1.00E+02	1.93E+03	6.07E+03	--	--	--	--	--	1.47E+01
Max	Aerial	Forested	Helicopter	Res-child	1.00E+02	2.20E+04	6.91E+04	--	--	--	--	--	1.67E+02
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+02	5.86E+04	1.84E+05	--	--	--	--	--	4.45E+02
Max	Ground	Not applicable	High Boom	Res-child	1.00E+02	1.35E+04	4.24E+04	--	--	--	--	--	1.02E+02
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	2.70E+04	5.70E+04	--	--	--	--	--	1.83E+02
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	3.27E+04	6.90E+04	--	--	--	--	--	2.22E+02
Typical	Aerial	Forested	Plane	Res-adult	1.00E+02	6.36E+03	1.34E+04	--	--	--	--	--	4.31E+01
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+02	7.63E+04	1.61E+05	--	--	--	--	--	5.18E+02
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	2.29E+05	4.83E+05	--	--	--	--	--	1.55E+03
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+02	1.53E+05	3.22E+05	--	--	--	--	--	1.04E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	1.91E+04	4.02E+04	--	--	--	--	--	1.29E+02
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	2.41E+04	5.08E+04	--	--	--	--	--	1.63E+02
Max	Aerial	Forested	Plane	Res-adult	1.00E+02	5.03E+03	1.06E+04	--	--	--	--	--	3.41E+01
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+02	5.72E+04	1.21E+05	--	--	--	--	--	3.88E+02
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	1.53E+05	3.22E+05	--	--	--	--	--	1.04E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+02	3.51E+04	7.41E+04	--	--	--	--	--	2.38E+02

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	1.04E+04	1.07E+05	NC	--	0.0551%	0.0644%	0.0184%	8.36E+01
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	1.25E+04	1.29E+05	NC	--	0.0539%	0.0532%	0.0180%	1.00E+02
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	2.44E+03	2.51E+04	NC	--	0.0643%	0.2734%	0.0215%	2.06E+01
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	2.93E+04	3.01E+05	NC	--	0.0491%	0.02278%	0.0164%	2.16E+02
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	8.79E+04	9.04E+05	NC	--	0.0491%	0.00759%	0.0164%	5.05E+02
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	5.86E+04	6.03E+05	NC	--	0.0496%	0.01139%	0.0166%	3.78E+02
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	7.32E+03	7.53E+04	NC	--	0.074%	0.0912%	0.0246%	5.92E+01
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	9.25E+03	9.51E+04	NC	--	0.072%	0.0722%	0.0240%	7.38E+01
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	1.93E+03	1.99E+04	NC	--	0.085%	0.345%	0.0282%	1.63E+01
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	2.20E+04	2.26E+05	NC	--	0.0654%	0.0304%	0.0218%	1.62E+02
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	5.86E+04	6.03E+05	NC	--	0.0654%	0.01139%	0.0218%	3.50E+02
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	1.35E+04	1.39E+05	NC	--	0.0661%	0.0495%	0.0221%	1.05E+02
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	2.70E+04	1.86E+05	NC	--	0.0208%	0.0648%	0.0184%	1.89E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	3.27E+04	2.26E+05	NC	--	0.0203%	0.0536%	0.0180%	2.26E+02
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	6.36E+03	4.39E+04	NC	--	0.0243%	0.2751%	0.0215%	4.71E+01
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	7.63E+04	5.27E+05	NC	--	0.0185%	0.02292%	0.0164%	4.81E+02
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	2.29E+05	1.58E+06	NC	--	0.0185%	0.00764%	0.0164%	1.08E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	1.53E+05	1.05E+06	NC	--	0.0187%	0.01146%	0.0166%	8.21E+02
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	1.91E+04	1.32E+05	NC	--	0.0278%	0.0918%	0.0246%	1.34E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	2.41E+04	1.66E+05	NC	--	0.0272%	0.0727%	0.0240%	1.67E+02
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	5.03E+03	3.48E+04	NC	--	0.0319%	0.348%	0.0282%	3.73E+01
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	5.72E+04	3.95E+05	NC	--	0.0247%	0.0306%	0.0218%	3.61E+02
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	1.53E+05	1.05E+06	NC	--	0.0247%	0.0115%	0.0218%	7.52E+02
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	3.51E+04	2.43E+05	NC	--	0.0250%	0.0498%	0.0221%	2.37E+02

Calculation: Aggregate Risk Index - Intermediate Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Intermediate-term
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Intermediate-Term
						Intermediate-Term Dermal (a)			Intermediate-Term Oral	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC

--Receptor not exposed via this pathway.
NA - Not Available.
NC - Not Calculated (No dose-response value).
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Intermediate-term Exposure

Herbicide: **Rimsulfuron**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a) Rangeland, Public-domain Forestland						**Maximum Application Rate Scenario ARIs (a) Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**					
AgDrift Scenario: **Land Type (b):** **Equipment (c):**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**
Hiker/Hunter (Adult)	228	271	58	564	1193	930	162	200	46	423	837	282
Berry Picker (Child)	82	98	21	204	437	339	58	72	16	153	306	102
Berry Picker (Adult)	192	229	48	483	1068	817	136	169	38	363	745	239
Angler (Adult)	228	271	58	560	1178	920	162	200	46	420	827	281
Residential (Child)	79	95	19	222	667	445	56	70	15	167	445	102
Residential (Adult)	183	222	43	518	1553	1036	129	163	34	388	1036	238
Native American (Child)	84	100	21	216	505	378	59	74	16	162	350	105
Native American (Adult)	189	226	47	481	1080	821	134	167	37	361	752	237
Swimmer (Child)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Swimmer (Adult)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

ARI - Aggregate Risk Index. Values less than one represent a level of concern.

NC - Not Calculated. No dose-response value available for incidental oral pathway due to use pattern (see Table 3-1).

(a) - Application rates are shown on Table 4-1 . For rangeland and public-domain forestland, the typical rate is 0.0469 lb a.i./acre and the maximum application rate is 0.0625 lb a.i./acre. For energy and mineral sites, rights-of-way, and recreation and cultural sites the typical and maximum application rates are the same (0.0625 lb a.i./acre). Therefore, the typical application rate scenario is applicable to rangeland and public-domain forestland, and the maximum application rate scenario is applicable to all five land programs.

(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.

(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.i./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.70E-01	1.90E-05	7.17E+01	2.32E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.70E-01	1.57E-05	7.17E+01	1.91E-04	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.70E-01	8.06E-05	7.17E+01	9.83E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.70E-01	6.72E-06	7.17E+01	8.19E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.70E-01	2.24E-06	7.17E+01	2.73E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.70E-01	2.69E-05	7.17E+01	3.28E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.70E-01	2.13E-05	7.17E+01	2.60E-04	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	1.70E-01	1.02E-04	7.17E+01	1.24E-03	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.70E-01	8.96E-06	7.17E+01	1.09E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.70E-01	1.46E-05	7.17E+01	1.78E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	1.70E-01	1.90E-05	1.87E+02	6.03E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.70E-01	1.57E-05	1.87E+02	4.98E-04	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	1.70E-01	8.06E-05	1.87E+02	2.56E-03	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	1.70E-01	6.72E-06	1.87E+02	2.13E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	1.70E-01	2.24E-06	1.87E+02	7.11E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	1.70E-01	2.69E-05	1.87E+02	8.54E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.70E-01	2.13E-05	1.87E+02	6.76E-04	NA	NC
Max	Aerial	Forested	Plane	Berry - child	1.70E-01	1.02E-04	1.87E+02	3.23E-03	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	1.70E-01	8.96E-06	1.87E+02	2.84E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	1.70E-01	1.46E-05	1.87E+02	4.63E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.70E-01	1.90E-05	7.17E+01	2.32E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.70E-01	1.57E-05	7.17E+01	1.91E-04	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	1.70E-01	8.06E-05	7.17E+01	9.83E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	1.70E-01	6.72E-06	7.17E+01	8.19E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.70E-01	2.24E-06	7.17E+01	2.73E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	1.70E-01	2.69E-05	7.17E+01	3.28E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.70E-01	2.13E-05	7.17E+01	2.60E-04	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	1.70E-01	1.02E-04	7.17E+01	1.24E-03	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	1.70E-01	8.96E-06	7.17E+01	1.09E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	1.70E-01	1.46E-05	7.17E+01	1.78E-04	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.i./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	1.70E-01	1.90E-05	7.17E+01	2.32E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	1.70E-01	1.57E-05	7.17E+01	1.91E-04	NA	NC
Typical	Aerial	Forested	Plane	Angler	1.70E-01	8.06E-05	7.17E+01	9.83E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	1.70E-01	6.72E-06	7.17E+01	8.19E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	1.70E-01	2.24E-06	7.17E+01	2.73E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	1.70E-01	2.69E-05	7.17E+01	3.28E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	1.70E-01	2.13E-05	7.17E+01	2.60E-04	NA	NC
Max	Aerial	Forested	Plane	Angler	1.70E-01	1.02E-04	7.17E+01	1.24E-03	NA	NC
Max	Aerial	Forested	Helicopter	Angler	1.70E-01	8.96E-06	7.17E+01	1.09E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Ground	Not applicable	High Boom	Angler	1.70E-01	1.46E-05	7.17E+01	1.78E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	1.70E-01	1.90E-05	1.87E+02	6.03E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.70E-01	1.57E-05	1.87E+02	4.98E-04	NA	NC
Typical	Aerial	Forested	Plane	Res-child	1.70E-01	8.06E-05	1.87E+02	2.56E-03	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.70E-01	6.72E-06	1.87E+02	2.13E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.70E-01	2.24E-06	1.87E+02	7.11E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.70E-01	2.69E-05	1.87E+02	8.54E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.70E-01	2.13E-05	1.87E+02	6.76E-04	NA	NC
Max	Aerial	Forested	Plane	Res-child	1.70E-01	1.02E-04	1.87E+02	3.23E-03	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	1.70E-01	8.96E-06	1.87E+02	2.84E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	1.70E-01	1.46E-05	1.87E+02	4.63E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.70E-01	1.90E-05	7.17E+01	2.32E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.70E-01	1.57E-05	7.17E+01	1.91E-04	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	1.70E-01	8.06E-05	7.17E+01	9.83E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.70E-01	6.72E-06	7.17E+01	8.19E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.70E-01	2.24E-06	7.17E+01	2.73E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.70E-01	2.69E-05	7.17E+01	3.28E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.70E-01	2.13E-05	7.17E+01	2.60E-04	NA	NC
Max	Aerial	Forested	Plane	Res-adult	1.70E-01	1.02E-04	7.17E+01	1.24E-03	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.70E-01	8.96E-06	7.17E+01	1.09E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.70E-01	1.46E-05	7.17E+01	1.78E-04	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Spray Drift
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DR x DAF) (mg a.i./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.70E-01	1.90E-05	1.87E+02	6.03E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.70E-01	1.57E-05	1.87E+02	4.98E-04	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	1.70E-01	8.06E-05	1.87E+02	2.56E-03	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	1.70E-01	6.72E-06	1.87E+02	2.13E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.70E-01	2.24E-06	1.87E+02	7.11E-05	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	1.70E-01	2.69E-05	1.87E+02	8.54E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.70E-01	2.13E-05	1.87E+02	6.76E-04	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	1.70E-01	1.02E-04	1.87E+02	3.23E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	1.70E-01	8.96E-06	1.87E+02	2.84E-04	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	1.70E-01	3.36E-06	1.87E+02	1.07E-04	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	1.70E-01	1.46E-05	1.87E+02	4.63E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.70E-01	1.90E-05	7.17E+01	2.32E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.70E-01	1.57E-05	7.17E+01	1.91E-04	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	1.70E-01	8.06E-05	7.17E+01	9.83E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.70E-01	6.72E-06	7.17E+01	8.19E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.70E-01	2.24E-06	7.17E+01	2.73E-05	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.70E-01	2.69E-05	7.17E+01	3.28E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.70E-01	2.13E-05	7.17E+01	2.60E-04	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	1.70E-01	1.02E-04	7.17E+01	1.24E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	1.70E-01	8.96E-06	7.17E+01	1.09E-04	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.70E-01	3.36E-06	7.17E+01	4.10E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	1.70E-01	1.46E-05	7.17E+01	1.78E-04	NA	NC

a.i. - active ingredient.
MOE - Margin of Exposure.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.i./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.70E-01	1.90E-05	4.75E-06	2.01E+01	1.63E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.70E-01	1.57E-05	3.93E-06	2.01E+01	1.34E-05	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.70E-01	8.06E-05	2.02E-05	2.01E+01	6.90E-05	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.70E-01	6.72E-06	1.68E-06	2.01E+01	5.75E-06	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.70E-01	2.24E-06	5.60E-07	2.01E+01	1.92E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.70E-01	3.36E-06	8.40E-07	2.01E+01	2.87E-06	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.50E-01	1.70E-01	2.69E-05	6.73E-06	2.01E+01	2.30E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.50E-01	1.70E-01	2.13E-05	5.33E-06	2.01E+01	1.82E-05	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.70E-01	1.02E-04	2.55E-05	2.01E+01	8.72E-05	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.70E-01	8.96E-06	2.24E-06	2.01E+01	7.66E-06	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.50E-01	1.70E-01	3.36E-06	8.40E-07	2.01E+01	2.87E-06	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.50E-01	1.70E-01	1.46E-05	3.65E-06	2.01E+01	1.25E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.70E-01	1.90E-05	4.75E-06	6.05E+01	4.89E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.70E-01	1.57E-05	3.93E-06	6.05E+01	4.04E-05	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	2.50E-01	1.70E-01	8.06E-05	2.02E-05	6.05E+01	2.07E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.70E-01	6.72E-06	1.68E-06	6.05E+01	1.73E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.70E-01	2.24E-06	5.60E-07	6.05E+01	5.76E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.70E-01	3.36E-06	8.40E-07	6.05E+01	8.64E-06	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	2.50E-01	1.70E-01	2.69E-05	6.73E-06	6.05E+01	6.92E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.50E-01	1.70E-01	2.13E-05	5.33E-06	6.05E+01	5.48E-05	NA	NC
Max	Aerial	Forested	Plane	Berry - child	2.50E-01	1.70E-01	1.02E-04	2.55E-05	6.05E+01	2.62E-04	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.70E-01	8.96E-06	2.24E-06	6.05E+01	2.30E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	2.50E-01	1.70E-01	3.36E-06	8.40E-07	6.05E+01	8.64E-06	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	2.50E-01	1.70E-01	1.46E-05	3.65E-06	6.05E+01	3.75E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.70E-01	1.90E-05	4.75E-06	3.46E+01	2.79E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.70E-01	1.57E-05	3.93E-06	3.46E+01	2.31E-05	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.70E-01	8.06E-05	2.02E-05	3.46E+01	1.19E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.70E-01	6.72E-06	1.68E-06	3.46E+01	9.88E-06	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.70E-01	2.24E-06	5.60E-07	3.46E+01	3.29E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.70E-01	3.36E-06	8.40E-07	3.46E+01	4.94E-06	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	2.50E-01	1.70E-01	2.69E-05	6.73E-06	3.46E+01	3.95E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.50E-01	1.70E-01	2.13E-05	5.33E-06	3.46E+01	3.13E-05	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	2.50E-01	1.70E-01	1.02E-04	2.55E-05	3.46E+01	1.50E-04	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	2.50E-01	1.70E-01	8.96E-06	2.24E-06	3.46E+01	1.32E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	2.50E-01	1.70E-01	3.36E-06	8.40E-07	3.46E+01	4.94E-06	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	2.50E-01	1.70E-01	1.46E-05	3.65E-06	3.46E+01	2.15E-05	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.i./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.70E-01	1.90E-05	4.75E-06	2.01E+01	1.63E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.70E-01	1.57E-05	3.93E-06	2.01E+01	1.34E-05	NA	NC
Typical	Aerial	Forested	Plane	Angler	2.50E-01	1.70E-01	8.06E-05	2.02E-05	2.01E+01	6.90E-05	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	1.70E-01	6.72E-06	1.68E-06	2.01E+01	5.75E-06	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.70E-01	2.24E-06	5.60E-07	2.01E+01	1.92E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	2.50E-01	1.70E-01	3.36E-06	8.40E-07	2.01E+01	2.87E-06	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.70E-01	2.69E-05	6.73E-06	2.01E+01	2.30E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.70E-01	2.13E-05	5.33E-06	2.01E+01	1.82E-05	NA	NC
Max	Aerial	Forested	Plane	Angler	2.50E-01	1.70E-01	1.02E-04	2.55E-05	2.01E+01	8.72E-05	NA	NC
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	1.70E-01	8.96E-06	2.24E-06	2.01E+01	7.66E-06	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	2.50E-01	1.70E-01	3.36E-06	8.40E-07	2.01E+01	2.87E-06	NA	NC
Max	Ground	Not applicable	High Boom	Angler	2.50E-01	1.70E-01	1.46E-05	3.65E-06	2.01E+01	1.25E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.70E-01	1.90E-05	1.90E-07	5.94E+03	1.92E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.70E-01	1.57E-05	1.57E-07	5.94E+03	1.59E-04	NA	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	1.70E-01	8.06E-05	8.06E-07	5.94E+03	8.14E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.70E-01	6.72E-06	6.72E-08	5.94E+03	6.79E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.70E-01	2.24E-06	2.24E-08	5.94E+03	2.26E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.70E-01	3.36E-06	3.36E-08	5.94E+03	3.39E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-02	1.70E-01	2.69E-05	2.69E-07	5.94E+03	2.72E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-02	1.70E-01	2.13E-05	2.13E-07	5.94E+03	2.15E-04	NA	NC
Max	Aerial	Forested	Plane	Res-child	1.00E-02	1.70E-01	1.02E-04	1.02E-06	5.94E+03	1.03E-03	NA	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.70E-01	8.96E-06	8.96E-08	5.94E+03	9.05E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-02	1.70E-01	3.36E-06	3.36E-08	5.94E+03	3.39E-05	NA	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E-02	1.70E-01	1.46E-05	1.46E-07	5.94E+03	1.47E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.70E-01	1.90E-05	1.90E-07	3.40E+03	1.10E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.70E-01	1.57E-05	1.57E-07	3.40E+03	9.06E-05	NA	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E-02	1.70E-01	8.06E-05	8.06E-07	3.40E+03	4.66E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.70E-01	6.72E-06	6.72E-08	3.40E+03	3.88E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.70E-01	2.24E-06	2.24E-08	3.40E+03	1.29E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.70E-01	3.36E-06	3.36E-08	3.40E+03	1.94E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-02	1.70E-01	2.69E-05	2.69E-07	3.40E+03	1.55E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-02	1.70E-01	2.13E-05	2.13E-07	3.40E+03	1.23E-04	NA	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E-02	1.70E-01	1.02E-04	1.02E-06	3.40E+03	5.88E-04	NA	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-02	1.70E-01	8.96E-06	8.96E-08	3.40E+03	5.17E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-02	1.70E-01	3.36E-06	3.36E-08	3.40E+03	1.94E-05	NA	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-02	1.70E-01	1.46E-05	1.46E-07	3.40E+03	8.43E-05	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Foliage
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Deposition Rate (DR) (mg a.i./cm2)	Dislodgeable Foliar Residue (DFR) (DR x F) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.i./kg-day)	Long-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.70E-01	1.90E-05	4.75E-06	7.26E+01	5.86E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.70E-01	1.57E-05	3.93E-06	7.26E+01	4.84E-05	NA	NC
Typical	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.70E-01	8.06E-05	2.02E-05	7.26E+01	2.49E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.70E-01	6.72E-06	1.68E-06	7.26E+01	2.07E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.70E-01	2.24E-06	5.60E-07	7.26E+01	6.91E-06	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.70E-01	3.36E-06	8.40E-07	7.26E+01	1.04E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-child	2.50E-01	1.70E-01	2.69E-05	6.73E-06	7.26E+01	8.30E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-child	2.50E-01	1.70E-01	2.13E-05	5.33E-06	7.26E+01	6.57E-05	NA	NC
Max	Aerial	Forested	Plane	N.A.-child	2.50E-01	1.70E-01	1.02E-04	2.55E-05	7.26E+01	3.14E-04	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-child	2.50E-01	1.70E-01	8.96E-06	2.24E-06	7.26E+01	2.76E-05	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-child	2.50E-01	1.70E-01	3.36E-06	8.40E-07	7.26E+01	1.04E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-child	2.50E-01	1.70E-01	1.46E-05	3.65E-06	7.26E+01	4.50E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.70E-01	1.90E-05	4.75E-06	4.15E+01	3.35E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.70E-01	1.57E-05	3.93E-06	4.15E+01	2.77E-05	NA	NC
Typical	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.70E-01	8.06E-05	2.02E-05	4.15E+01	1.42E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.70E-01	6.72E-06	1.68E-06	4.15E+01	1.19E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.70E-01	2.24E-06	5.60E-07	4.15E+01	3.95E-06	NA	NC
Typical	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.70E-01	3.36E-06	8.40E-07	4.15E+01	5.93E-06	NA	NC
Max	Aerial	Non-Forested	Plane	N.A.-adult	2.50E-01	1.70E-01	2.69E-05	6.73E-06	4.15E+01	4.75E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	2.50E-01	1.70E-01	2.13E-05	5.33E-06	4.15E+01	3.76E-05	NA	NC
Max	Aerial	Forested	Plane	N.A.-adult	2.50E-01	1.70E-01	1.02E-04	2.55E-05	4.15E+01	1.80E-04	NA	NC
Max	Aerial	Forested	Helicopter	N.A.-adult	2.50E-01	1.70E-01	8.96E-06	2.24E-06	4.15E+01	1.58E-05	NA	NC
Max	Ground	Not applicable	Low Boom	N.A.-adult	2.50E-01	1.70E-01	3.36E-06	8.40E-07	4.15E+01	5.93E-06	NA	NC
Max	Ground	Not applicable	High Boom	N.A.-adult	2.50E-01	1.70E-01	1.46E-05	3.65E-06	4.15E+01	2.58E-05	NA	NC

a.i. - active ingredient.
MOE - Margin of Exposure.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.i./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.i./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	6.41E-06	4.42E-04	1.00E-03	4.40E+02	1.25E-09	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	6.41E-06	3.98E-04	1.00E-03	4.40E+02	1.12E-09	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-child	6.41E-06	7.65E-04	1.00E-03	4.40E+02	2.16E-09	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-child	6.41E-06	2.28E-04	1.00E-03	4.40E+02	6.44E-10	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-child	6.41E-06	2.27E-04	1.00E-03	4.40E+02	6.39E-10	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-child	6.41E-06	2.46E-04	1.00E-03	4.40E+02	6.94E-10	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-child	6.41E-06	5.97E-04	1.00E-03	4.40E+02	1.68E-09	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	6.41E-06	5.34E-04	1.00E-03	4.40E+02	1.51E-09	NA	NC
Max	Aerial	Forested	Plane	Swimmer-child	6.41E-06	9.81E-04	1.00E-03	4.40E+02	2.77E-09	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-child	6.41E-06	3.02E-04	1.00E-03	4.40E+02	8.53E-10	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-child	6.41E-06	3.02E-04	1.00E-03	4.40E+02	8.52E-10	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-child	6.41E-06	3.28E-04	1.00E-03	4.40E+02	9.24E-10	NA	NC
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	6.41E-06	4.42E-04	1.00E-03	2.26E+02	6.41E-10	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	6.41E-06	3.98E-04	1.00E-03	2.26E+02	5.77E-10	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-adult	6.41E-06	7.65E-04	1.00E-03	2.26E+02	1.11E-09	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-adult	6.41E-06	2.28E-04	1.00E-03	2.26E+02	3.31E-10	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	6.41E-06	2.27E-04	1.00E-03	2.26E+02	3.29E-10	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-adult	6.41E-06	2.46E-04	1.00E-03	2.26E+02	3.57E-10	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-adult	6.41E-06	5.97E-04	1.00E-03	2.26E+02	8.67E-10	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	6.41E-06	5.34E-04	1.00E-03	2.26E+02	7.75E-10	NA	NC
Max	Aerial	Forested	Plane	Swimmer-adult	6.41E-06	9.81E-04	1.00E-03	2.26E+02	1.42E-09	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-adult	6.41E-06	3.02E-04	1.00E-03	2.26E+02	4.39E-10	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-adult	6.41E-06	3.02E-04	1.00E-03	2.26E+02	4.38E-10	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-adult	6.41E-06	3.28E-04	1.00E-03	2.26E+02	4.76E-10	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American-child	6.41E-06	4.42E-04	1.00E-03	1.14E+03	3.24E-09	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American-child	6.41E-06	3.98E-04	1.00E-03	1.14E+03	2.92E-09	NA	NC
Typical	Aerial	Forested	Plane	N.American-child	6.41E-06	7.65E-04	1.00E-03	1.14E+03	5.61E-09	NA	NC
Typical	Aerial	Forested	Helicopter	N.American-child	6.41E-06	2.28E-04	1.00E-03	1.14E+03	1.67E-09	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American-child	6.41E-06	2.27E-04	1.00E-03	1.14E+03	1.66E-09	NA	NC
Typical	Ground	Not applicable	High Boom	N.American-child	6.41E-06	2.46E-04	1.00E-03	1.14E+03	1.80E-09	NA	NC
Max	Aerial	Non-Forested	Plane	N.American-child	6.41E-06	5.97E-04	1.00E-03	1.14E+03	4.38E-09	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American-child	6.41E-06	5.34E-04	1.00E-03	1.14E+03	3.92E-09	NA	NC
Max	Aerial	Forested	Plane	N.American-child	6.41E-06	9.81E-04	1.00E-03	1.14E+03	7.19E-09	NA	NC
Max	Aerial	Forested	Helicopter	N.American-child	6.41E-06	3.02E-04	1.00E-03	1.14E+03	2.22E-09	NA	NC
Max	Ground	Not applicable	Low Boom	N.American-child	6.41E-06	3.02E-04	1.00E-03	1.14E+03	2.21E-09	NA	NC
Max	Ground	Not applicable	High Boom	N.American-child	6.41E-06	3.28E-04	1.00E-03	1.14E+03	2.40E-09	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Dermal Contact with Water While Swimming
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Skin Permeability Constant (Kp) (cm/hr)	Long-Term Water Concentration (Cw) (mg a.i./L)	Unit Correction Factor (CF) (L/cm3)	Exposure Factor (EF) (cm2-hr/kg-day)	Absorbed Dose (EF x Kp x CW x CF) (mg a.i./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	6.41E-06	4.42E-04	1.00E-03	5.89E+02	1.67E-09	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	6.41E-06	3.98E-04	1.00E-03	5.89E+02	1.50E-09	NA	NC
Typical	Aerial	Forested	Plane	N.American-adult	6.41E-06	7.65E-04	1.00E-03	5.89E+02	2.88E-09	NA	NC
Typical	Aerial	Forested	Helicopter	N.American-adult	6.41E-06	2.28E-04	1.00E-03	5.89E+02	8.61E-10	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American-adult	6.41E-06	2.27E-04	1.00E-03	5.89E+02	8.55E-10	NA	NC
Typical	Ground	Not applicable	High Boom	N.American-adult	6.41E-06	2.46E-04	1.00E-03	5.89E+02	9.28E-10	NA	NC
Max	Aerial	Non-Forested	Plane	N.American-adult	6.41E-06	5.97E-04	1.00E-03	5.89E+02	2.25E-09	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American-adult	6.41E-06	5.34E-04	1.00E-03	5.89E+02	2.02E-09	NA	NC
Max	Aerial	Forested	Plane	N.American-adult	6.41E-06	9.81E-04	1.00E-03	5.89E+02	3.70E-09	NA	NC
Max	Aerial	Forested	Helicopter	N.American-adult	6.41E-06	3.02E-04	1.00E-03	5.89E+02	1.14E-09	NA	NC
Max	Ground	Not applicable	Low Boom	N.American-adult	6.41E-06	3.02E-04	1.00E-03	5.89E+02	1.14E-09	NA	NC
Max	Ground	Not applicable	High Boom	N.American-adult	6.41E-06	3.28E-04	1.00E-03	5.89E+02	1.24E-09	NA	NC

a.i. - active ingredient.
MOE - Margin of Exposure.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Incidental Ingestion of Water while Swimming
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.i./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.i./kg-day)	Intermediate-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	4.42E-04	8.00E-03	3.53E-06	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	3.98E-04	8.00E-03	3.18E-06	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-child	7.65E-04	8.00E-03	6.12E-06	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.28E-04	8.00E-03	1.83E-06	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.27E-04	8.00E-03	1.81E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.46E-04	8.00E-03	1.97E-06	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-child	5.97E-04	8.00E-03	4.78E-06	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	5.34E-04	8.00E-03	4.28E-06	NA	NC
Max	Aerial	Forested	Plane	Swimmer-child	9.81E-04	8.00E-03	7.85E-06	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-child	3.02E-04	8.00E-03	2.42E-06	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-child	3.02E-04	8.00E-03	2.42E-06	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-child	3.28E-04	8.00E-03	2.62E-06	NA	NC
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	4.42E-04	8.93E-04	3.94E-07	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	3.98E-04	8.93E-04	3.55E-07	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-adult	7.65E-04	8.93E-04	6.83E-07	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.28E-04	8.93E-04	2.04E-07	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.27E-04	8.93E-04	2.02E-07	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.46E-04	8.93E-04	2.20E-07	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-adult	5.97E-04	8.93E-04	5.34E-07	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	5.34E-04	8.93E-04	4.77E-07	NA	NC
Max	Aerial	Forested	Plane	Swimmer-adult	9.81E-04	8.93E-04	8.76E-07	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-adult	3.02E-04	8.93E-04	2.70E-07	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-adult	3.02E-04	8.93E-04	2.70E-07	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-adult	3.28E-04	8.93E-04	2.93E-07	NA	NC

a.i. - active ingredient.
MOE - Margin of Exposure.
NA - Not Available.
NC - Not Calculated (No dose-response value).
NOAEL - No Observed Adverse Effect Level.
(a) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.i./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	4.42E-04	2.52E-02	1.11E-05	1.18E-01	0.0094%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	3.98E-04	2.52E-02	1.00E-05	1.18E-01	0.0085%
Typical	Aerial	Forested	Plane	Hiker/Hunter	7.65E-04	2.52E-02	1.92E-05	1.18E-01	0.0163%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.28E-04	2.52E-02	5.74E-06	1.18E-01	0.00487%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.27E-04	2.52E-02	5.70E-06	1.18E-01	0.00483%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.46E-04	2.52E-02	6.19E-06	1.18E-01	0.00524%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	5.97E-04	2.52E-02	1.50E-05	1.18E-01	0.0127%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	5.34E-04	2.52E-02	1.34E-05	1.18E-01	0.0114%
Max	Aerial	Forested	Plane	Hiker/Hunter	9.81E-04	2.52E-02	2.47E-05	1.18E-01	0.0209%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	3.02E-04	2.52E-02	7.61E-06	1.18E-01	0.0064%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	3.02E-04	2.52E-02	7.60E-06	1.18E-01	0.0064%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	3.28E-04	2.52E-02	8.25E-06	1.18E-01	0.0070%
Typical	Aerial	Non-Forested	Plane	Berry - child	4.42E-04	6.67E-02	2.94E-05	1.18E-01	0.0250%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	3.98E-04	6.67E-02	2.65E-05	1.18E-01	0.0225%
Typical	Aerial	Forested	Plane	Berry - child	7.65E-04	6.67E-02	5.10E-05	1.18E-01	0.0432%
Typical	Aerial	Forested	Helicopter	Berry - child	2.28E-04	6.67E-02	1.52E-05	1.18E-01	0.0129%
Typical	Ground	Not applicable	Low Boom	Berry - child	2.27E-04	6.67E-02	1.51E-05	1.18E-01	0.0128%
Typical	Ground	Not applicable	High Boom	Berry - child	2.46E-04	6.67E-02	1.64E-05	1.18E-01	0.0139%
Max	Aerial	Non-Forested	Plane	Berry - child	5.97E-04	6.67E-02	3.98E-05	1.18E-01	0.0338%
Max	Aerial	Non-Forested	Helicopter	Berry - child	5.34E-04	6.67E-02	3.56E-05	1.18E-01	0.0302%
Max	Aerial	Forested	Plane	Berry - child	9.81E-04	6.67E-02	6.54E-05	1.18E-01	0.0554%
Max	Aerial	Forested	Helicopter	Berry - child	3.02E-04	6.67E-02	2.02E-05	1.18E-01	0.0171%
Max	Ground	Not applicable	Low Boom	Berry - child	3.02E-04	6.67E-02	2.01E-05	1.18E-01	0.0171%
Max	Ground	Not applicable	High Boom	Berry - child	3.28E-04	6.67E-02	2.19E-05	1.18E-01	0.0185%
Typical	Aerial	Non-Forested	Plane	Berry - adult	4.42E-04	2.52E-02	1.11E-05	1.18E-01	0.0094%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	3.98E-04	2.52E-02	1.00E-05	1.18E-01	0.0085%
Typical	Aerial	Forested	Plane	Berry - adult	7.65E-04	2.52E-02	1.92E-05	1.18E-01	0.0163%
Typical	Aerial	Forested	Helicopter	Berry - adult	2.28E-04	2.52E-02	5.74E-06	1.18E-01	0.00487%
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.27E-04	2.52E-02	5.70E-06	1.18E-01	0.00483%
Typical	Ground	Not applicable	High Boom	Berry - adult	2.46E-04	2.52E-02	6.19E-06	1.18E-01	0.00524%
Max	Aerial	Non-Forested	Plane	Berry - adult	5.97E-04	2.52E-02	1.50E-05	1.18E-01	0.0127%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	5.34E-04	2.52E-02	1.34E-05	1.18E-01	0.0114%
Max	Aerial	Forested	Plane	Berry - adult	9.81E-04	2.52E-02	2.47E-05	1.18E-01	0.0209%
Max	Aerial	Forested	Helicopter	Berry - adult	3.02E-04	2.52E-02	7.61E-06	1.18E-01	0.0064%
Max	Ground	Not applicable	Low Boom	Berry - adult	3.02E-04	2.52E-02	7.60E-06	1.18E-01	0.0064%
Max	Ground	Not applicable	High Boom	Berry - adult	3.28E-04	2.52E-02	8.25E-06	1.18E-01	0.0070%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Drinking Water Ingestion
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.i./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	4.42E-04	2.52E-02	1.11E-05	1.18E-01	0.0094%
Typical	Aerial	Non-Forested	Helicopter	Angler	3.98E-04	2.52E-02	1.00E-05	1.18E-01	0.0085%
Typical	Aerial	Forested	Plane	Angler	7.65E-04	2.52E-02	1.92E-05	1.18E-01	0.0163%
Typical	Aerial	Forested	Helicopter	Angler	2.28E-04	2.52E-02	5.74E-06	1.18E-01	0.00487%
Typical	Ground	Not applicable	Low Boom	Angler	2.27E-04	2.52E-02	5.70E-06	1.18E-01	0.00483%
Typical	Ground	Not applicable	High Boom	Angler	2.46E-04	2.52E-02	6.19E-06	1.18E-01	0.00524%
Max	Aerial	Non-Forested	Plane	Angler	5.97E-04	2.52E-02	1.50E-05	1.18E-01	0.0127%
Max	Aerial	Non-Forested	Helicopter	Angler	5.34E-04	2.52E-02	1.34E-05	1.18E-01	0.0114%
Max	Aerial	Forested	Plane	Angler	9.81E-04	2.52E-02	2.47E-05	1.18E-01	0.0209%
Max	Aerial	Forested	Helicopter	Angler	3.02E-04	2.52E-02	7.61E-06	1.18E-01	0.0064%
Max	Ground	Not applicable	Low Boom	Angler	3.02E-04	2.52E-02	7.60E-06	1.18E-01	0.0064%
Max	Ground	Not applicable	High Boom	Angler	3.28E-04	2.52E-02	8.25E-06	1.18E-01	0.0070%
Typical	Aerial	Non-Forested	Plane	N.American - child	4.42E-04	3.33E-02	1.47E-05	1.18E-01	0.0125%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	3.98E-04	3.33E-02	1.33E-05	1.18E-01	0.0112%
Typical	Aerial	Forested	Plane	N.American - child	7.65E-04	3.33E-02	2.55E-05	1.18E-01	0.0216%
Typical	Aerial	Forested	Helicopter	N.American - child	2.28E-04	3.33E-02	7.61E-06	1.18E-01	0.00645%
Typical	Ground	Not applicable	Low Boom	N.American - child	2.27E-04	3.33E-02	7.56E-06	1.18E-01	0.00640%
Typical	Ground	Not applicable	High Boom	N.American - child	2.46E-04	3.33E-02	8.20E-06	1.18E-01	0.0069%
Max	Aerial	Non-Forested	Plane	N.American - child	5.97E-04	3.33E-02	1.99E-05	1.18E-01	0.0169%
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.34E-04	3.33E-02	1.78E-05	1.18E-01	0.0151%
Max	Aerial	Forested	Plane	N.American - child	9.81E-04	3.33E-02	3.27E-05	1.18E-01	0.0277%
Max	Aerial	Forested	Helicopter	N.American - child	3.02E-04	3.33E-02	1.01E-05	1.18E-01	0.0085%
Max	Ground	Not applicable	Low Boom	N.American - child	3.02E-04	3.33E-02	1.01E-05	1.18E-01	0.0085%
Max	Ground	Not applicable	High Boom	N.American - child	3.28E-04	3.33E-02	1.09E-05	1.18E-01	0.0093%
Typical	Aerial	Non-Forested	Plane	N.American - adult	4.42E-04	1.26E-02	5.56E-06	1.18E-01	0.00471%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	3.98E-04	1.26E-02	5.00E-06	1.18E-01	0.00424%
Typical	Aerial	Forested	Plane	N.American - adult	7.65E-04	1.26E-02	9.62E-06	1.18E-01	0.0082%
Typical	Aerial	Forested	Helicopter	N.American - adult	2.28E-04	1.26E-02	2.87E-06	1.18E-01	0.00243%
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.27E-04	1.26E-02	2.85E-06	1.18E-01	0.00242%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.46E-04	1.26E-02	3.09E-06	1.18E-01	0.00262%
Max	Aerial	Non-Forested	Plane	N.American - adult	5.97E-04	1.26E-02	7.51E-06	1.18E-01	0.0064%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.34E-04	1.26E-02	6.72E-06	1.18E-01	0.00570%
Max	Aerial	Forested	Plane	N.American - adult	9.81E-04	1.26E-02	1.23E-05	1.18E-01	0.0105%
Max	Aerial	Forested	Helicopter	N.American - adult	3.02E-04	1.26E-02	3.80E-06	1.18E-01	0.00322%
Max	Ground	Not applicable	Low Boom	N.American - adult	3.02E-04	1.26E-02	3.80E-06	1.18E-01	0.00322%
Max	Ground	Not applicable	High Boom	N.American - adult	3.28E-04	1.26E-02	4.12E-06	1.18E-01	0.00349%

a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Fish
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Long-Term Water Concentration (Cw) (mg a.i./L)	Bioconcentration Factor (BCF) (L/kg)	Unit Correction Factor (CF) (kg/mg)	Exposure Factor (EF) (mg/kg-day)	Absorbed Dose (EF x Cw x BCF x CF) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	4.42E-04	1.00E+00	1.00E-06	7.67E+02	3.39E-07	1.18E-01	0.000287%
Typical	Aerial	Non-Forested	Helicopter	Angler	3.98E-04	1.00E+00	1.00E-06	7.67E+02	3.05E-07	1.18E-01	0.000259%
Typical	Aerial	Forested	Plane	Angler	7.65E-04	1.00E+00	1.00E-06	7.67E+02	5.87E-07	1.18E-01	0.000497%
Typical	Aerial	Forested	Helicopter	Angler	2.28E-04	1.00E+00	1.00E-06	7.67E+02	1.75E-07	1.18E-01	0.000148%
Typical	Ground	Not applicable	Low Boom	Angler	2.27E-04	1.00E+00	1.00E-06	7.67E+02	1.74E-07	1.18E-01	0.000147%
Typical	Ground	Not applicable	High Boom	Angler	2.46E-04	1.00E+00	1.00E-06	7.67E+02	1.89E-07	1.18E-01	0.000160%
Max	Aerial	Non-Forested	Plane	Angler	5.97E-04	1.00E+00	1.00E-06	7.67E+02	4.58E-07	1.18E-01	0.000388%
Max	Aerial	Non-Forested	Helicopter	Angler	5.34E-04	1.00E+00	1.00E-06	7.67E+02	4.10E-07	1.18E-01	0.000348%
Max	Aerial	Forested	Plane	Angler	9.81E-04	1.00E+00	1.00E-06	7.67E+02	7.53E-07	1.18E-01	0.00064%
Max	Aerial	Forested	Helicopter	Angler	3.02E-04	1.00E+00	1.00E-06	7.67E+02	2.32E-07	1.18E-01	0.000197%
Max	Ground	Not applicable	Low Boom	Angler	3.02E-04	1.00E+00	1.00E-06	7.67E+02	2.32E-07	1.18E-01	0.000196%
Max	Ground	Not applicable	High Boom	Angler	3.28E-04	1.00E+00	1.00E-06	7.67E+02	2.52E-07	1.18E-01	0.000213%
Typical	Aerial	Non-Forested	Plane	N.American - child	4.42E-04	1.00E+00	1.00E-06	1.11E+04	4.92E-06	1.18E-01	0.00417%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	3.98E-04	1.00E+00	1.00E-06	1.11E+04	4.43E-06	1.18E-01	0.00375%
Typical	Aerial	Forested	Plane	N.American - child	7.65E-04	1.00E+00	1.00E-06	1.11E+04	8.51E-06	1.18E-01	0.0072%
Typical	Aerial	Forested	Helicopter	N.American - child	2.28E-04	1.00E+00	1.00E-06	1.11E+04	2.54E-06	1.18E-01	0.00215%
Typical	Ground	Not applicable	Low Boom	N.American - child	2.27E-04	1.00E+00	1.00E-06	1.11E+04	2.52E-06	1.18E-01	0.00214%
Typical	Ground	Not applicable	High Boom	N.American - child	2.46E-04	1.00E+00	1.00E-06	1.11E+04	2.74E-06	1.18E-01	0.00232%
Max	Aerial	Non-Forested	Plane	N.American - child	5.97E-04	1.00E+00	1.00E-06	1.11E+04	6.65E-06	1.18E-01	0.00564%
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.34E-04	1.00E+00	1.00E-06	1.11E+04	5.95E-06	1.18E-01	0.00504%
Max	Aerial	Forested	Plane	N.American - child	9.81E-04	1.00E+00	1.00E-06	1.11E+04	1.09E-05	1.18E-01	0.0093%
Max	Aerial	Forested	Helicopter	N.American - child	3.02E-04	1.00E+00	1.00E-06	1.11E+04	3.37E-06	1.18E-01	0.00285%
Max	Ground	Not applicable	Low Boom	N.American - child	3.02E-04	1.00E+00	1.00E-06	1.11E+04	3.36E-06	1.18E-01	0.00285%
Max	Ground	Not applicable	High Boom	N.American - child	3.28E-04	1.00E+00	1.00E-06	1.11E+04	3.65E-06	1.18E-01	0.00309%
Typical	Aerial	Non-Forested	Plane	N.American - adult	4.42E-04	1.00E+00	1.00E-06	1.11E+04	4.92E-06	1.18E-01	0.00417%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	3.98E-04	1.00E+00	1.00E-06	1.11E+04	4.43E-06	1.18E-01	0.00375%
Typical	Aerial	Forested	Plane	N.American - adult	7.65E-04	1.00E+00	1.00E-06	1.11E+04	8.51E-06	1.18E-01	0.0072%
Typical	Aerial	Forested	Helicopter	N.American - adult	2.28E-04	1.00E+00	1.00E-06	1.11E+04	2.54E-06	1.18E-01	0.00215%
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.27E-04	1.00E+00	1.00E-06	1.11E+04	2.52E-06	1.18E-01	0.00214%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.46E-04	1.00E+00	1.00E-06	1.11E+04	2.74E-06	1.18E-01	0.00232%
Max	Aerial	Non-Forested	Plane	N.American - adult	5.97E-04	1.00E+00	1.00E-06	1.11E+04	6.65E-06	1.18E-01	0.00564%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.34E-04	1.00E+00	1.00E-06	1.11E+04	5.95E-06	1.18E-01	0.00504%
Max	Aerial	Forested	Plane	N.American - adult	9.81E-04	1.00E+00	1.00E-06	1.11E+04	1.09E-05	1.18E-01	0.0093%
Max	Aerial	Forested	Helicopter	N.American - adult	3.02E-04	1.00E+00	1.00E-06	1.11E+04	3.37E-06	1.18E-01	0.00285%
Max	Ground	Not applicable	Low Boom	N.American - adult	3.02E-04	1.00E+00	1.00E-06	1.11E+04	3.36E-06	1.18E-01	0.00285%
Max	Ground	Not applicable	High Boom	N.American - adult	3.28E-04	1.00E+00	1.00E-06	1.11E+04	3.65E-06	1.18E-01	0.00309%

a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	1.90E-05	4.00E+00	7.60E-05	1.18E-01	0.0644%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.57E-05	4.00E+00	6.28E-05	1.18E-01	0.0532%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	1.18E-01	0.2734%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	1.18E-01	0.0228%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.24E-06	4.00E+00	8.96E-06	1.18E-01	0.0076%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	1.18E-01	0.0114%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	2.69E-05	4.00E+00	1.08E-04	1.18E-01	0.0912%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	2.13E-05	4.00E+00	8.52E-05	1.18E-01	0.0722%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.02E-04	4.00E+00	4.08E-04	1.18E-01	0.3455%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	1.18E-01	0.0304%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	1.18E-01	0.0114%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.46E-05	4.00E+00	5.84E-05	1.18E-01	0.0495%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	1.90E-05	4.03E+00	7.65E-05	1.18E-01	0.0648%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.57E-05	4.03E+00	6.32E-05	1.18E-01	0.0536%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	1.18E-01	0.2751%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	1.18E-01	0.0229%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.24E-06	4.03E+00	9.02E-06	1.18E-01	0.0076%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	1.18E-01	0.0115%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	2.69E-05	4.03E+00	1.08E-04	1.18E-01	0.0918%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	1.18E-01	0.0727%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.02E-04	4.03E+00	4.10E-04	1.18E-01	0.3477%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	1.18E-01	0.0306%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	1.18E-01	0.0115%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.46E-05	4.03E+00	5.88E-05	1.18E-01	0.0498%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Long-term
Pathway: Ingestion of Berries
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Fraction Retained on Berry (F)	Deposition Rate (DR) (mg a.i./cm2)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (EF x DR x F) (mg a.i./kg-day)	Chronic PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	1.90E-05	4.00E+00	7.60E-05	1.18E-01	0.0644%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.57E-05	4.00E+00	6.28E-05	1.18E-01	0.0532%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	1.18E-01	0.2734%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	1.18E-01	0.0228%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.24E-06	4.00E+00	8.96E-06	1.18E-01	0.0076%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	1.18E-01	0.0114%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	2.69E-05	4.00E+00	1.08E-04	1.18E-01	0.0912%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	2.13E-05	4.00E+00	8.52E-05	1.18E-01	0.0722%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.02E-04	4.00E+00	4.08E-04	1.18E-01	0.3455%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	1.18E-01	0.0304%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	1.18E-01	0.0114%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.46E-05	4.00E+00	5.84E-05	1.18E-01	0.0495%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	1.90E-05	4.03E+00	7.65E-05	1.18E-01	0.0648%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.57E-05	4.03E+00	6.32E-05	1.18E-01	0.0536%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	1.18E-01	0.2751%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	1.18E-01	0.0229%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.24E-06	4.03E+00	9.02E-06	1.18E-01	0.0076%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	1.18E-01	0.0115%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	2.69E-05	4.03E+00	1.08E-04	1.18E-01	0.0918%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	1.18E-01	0.0727%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.02E-04	4.03E+00	4.10E-04	1.18E-01	0.3477%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	1.18E-01	0.0306%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	1.18E-01	0.0115%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.46E-05	4.03E+00	5.88E-05	1.18E-01	0.0498%

a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0094%	--	--	1.06E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0085%	--	--	1.18E+04
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0163%	--	--	6.13E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.00487%	--	--	2.05E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.00483%	--	--	2.07E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.00524%	--	--	1.91E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0127%	--	--	7.85E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0114%	--	--	8.78E+03
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0209%	--	--	4.78E+03
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0064%	--	--	1.55E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0064%	--	--	1.55E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.0070%	--	--	1.43E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.0250%	0.0644%	--	1.12E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.0225%	0.0532%	--	1.32E+03
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.0432%	0.2734%	--	3.16E+02
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.0129%	0.02278%	--	2.80E+03
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.0128%	0.00759%	--	4.90E+03
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.0139%	0.01139%	--	3.95E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.0338%	0.0912%	--	8.00E+02
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.0302%	0.0722%	--	9.77E+02
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.0554%	0.345%	--	2.49E+02
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.0171%	0.0304%	--	2.11E+03
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.0171%	0.0114%	--	3.51E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.0185%	0.0495%	--	1.47E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.0094%	0.0648%	--	1.35E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.0085%	0.0536%	--	1.61E+03
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.0163%	0.2751%	--	3.43E+02
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.0049%	0.02292%	--	3.60E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.0048%	0.00764%	--	8.02E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.0052%	0.01146%	--	5.99E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.0127%	0.0918%	--	9.57E+02
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.0114%	0.0727%	--	1.19E+03
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.0209%	0.348%	--	2.71E+02
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.0064%	0.0306%	--	2.70E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.0064%	0.01146%	--	5.59E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.0070%	0.0498%	--	1.76E+03

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.0094%	--	0.000287%	1.03E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.0085%	--	0.000259%	1.14E+04
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.0163%	--	0.000497%	5.95E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.0049%	--	0.000148%	1.99E+04
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.0048%	--	0.000147%	2.01E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.0052%	--	0.000160%	1.85E+04
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.0127%	--	0.000388%	7.62E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.0114%	--	0.000348%	8.52E+03
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.0209%	--	0.00064%	4.64E+03
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.0064%	--	0.000197%	1.50E+04
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.0064%	--	0.000196%	1.51E+04
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.0070%	--	0.000213%	1.39E+04
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-child	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Plane	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+02	NC	NC	--	--	--	--	--	NC

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	NC	--	0.0125%	0.0644%	0.00417%	1.23E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	NC	--	0.0112%	0.0532%	0.00375%	1.47E+03
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	NC	--	0.0216%	0.2734%	0.0072%	3.31E+02
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	NC	--	0.00645%	0.02278%	0.00215%	3.19E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	NC	--	0.00640%	0.00759%	0.00214%	6.20E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	NC	--	0.0069%	0.01139%	0.00232%	4.84E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	NC	--	0.0169%	0.0912%	0.00564%	8.80E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	NC	--	0.0151%	0.0722%	0.00504%	1.08E+03
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	NC	--	0.0277%	0.345%	0.00926%	2.61E+02
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	NC	--	0.0085%	0.0304%	0.00285%	2.39E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	NC	--	0.0085%	0.01139%	0.00285%	4.39E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	NC	--	0.0093%	0.0495%	0.00309%	1.62E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	NC	--	0.00471%	0.0648%	0.00417%	1.36E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	NC	--	0.00424%	0.0536%	0.00375%	1.62E+03
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	NC	--	0.0082%	0.2751%	0.0072%	3.44E+02
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	NC	--	0.00243%	0.0229%	0.00215%	3.64E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	NC	--	0.00242%	0.0076%	0.00214%	8.20E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	NC	--	0.00262%	0.0115%	0.00232%	6.10E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	NC	--	0.0064%	0.0918%	0.00564%	9.64E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	NC	--	0.00570%	0.0727%	0.00504%	1.20E+03
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	NC	--	0.0105%	0.348%	0.0093%	2.72E+02
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	NC	--	0.00322%	0.0306%	0.00285%	2.73E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	NC	--	0.00322%	0.01146%	0.00285%	5.70E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	NC	--	0.00349%	0.0498%	0.00309%	1.77E+03

Calculation: Aggregate Risk Index - Long Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Long-term
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Long-Term
						Long-Term Dermal (a)			Long-Term Oral (b)	Chronic			Aggregate
Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Target MOE (TM)	Drift MOE	Foliage MOE	Water MOE	Water MOE	Drinking water %PAD	Berry %PAD	Fish %PAD	Risk Index (ARI)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	NC	NC	--	--	--	NC

--Receptor not exposed via this pathway.
NA - Not Available.
NC - Not Calculated (No dose-response value).
ARI - Aggregate Risk Index. [1/(Sum %PADs expressed as ratios + (TM/Drift MOE) + (TM/Foliage MOE) + (TM/Water Dermal MOE) + (TM/Water Ingestion MOE))]
MOE - Margin of Exposure.
NOAEL - No Observed Adverse Effect Level.
PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.
(a) - Dermal contact with water is evaluated using the oral NOAEL because the dermal dose in the equation is based on the assumption that the herbicide is absorbed into the body. Dermal NOAELs are based on the assumption that the dose is applied to the skin and the skin acts as a barrier. Therefore, use of dermal NOAELs with an absorbed dose may result in an underestimation of the amount of herbicide absorbed. USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.
(b) - USEPA has not developed long-term oral NOAELs. Therefore, the intermediate-term NOAEL is used.

Aggregate Risk Indices - Routine Exposure Scenarios for Public Receptors - Long-term Exposure

Herbicide: **Rimsulfuron**

Programs: **Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**

	Typical Application Rate Scenario ARIs (a) Rangeland, Public-domain Forestland						**Maximum Application Rate Scenario ARIs (a) Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites**					
AgDrift Scenario: **Land Type (b):** **Equipment (c):**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**	**Aerial** **Non-Forested** **Plane**	**Aerial** **Non-Forested** **Helicopter**	**Aerial** **Forested** **Plane**	**Aerial** **Forested** **Helicopter**	**Ground** **Not applicable** **Low Boom**	**Ground** **Not applicable** **High Boom**
Hiker/Hunter (Adult)	10,620	11,795	6,134	20,546	20,692	19,068	7,851	8,777	4,781	15,507	15,530	14,307
Berry Picker (Child)	1,119	1,321	316	2,803	4,902	3,955	800	977	249	2,107	3,514	1,470
Berry Picker (Adult)	1,347	1,612	343	3,598	8,017	5,986	957	1,190	271	2,702	5,586	1,761
Angler (Adult)	10,305	11,446	5,952	19,938	20,080	18,504	7,619	8,517	4,639	15,048	15,070	13,884
Residential (Child)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Residential (Adult)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Native American (Child)	1,234	1,466	331	3,186	6,198	4,840	880	1,083	261	2,394	4,391	1,617
Native American (Adult)	1,357	1,625	344	3,635	8,199	6,096	964	1,199	272	2,729	5,704	1,773
Swimmer (Child)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Swimmer (Adult)	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

ARI - Aggregate Risk Index. Values less than one represent a level of concern.

NC - Not Calculated. No dose-response value available for incidental oral pathway due to use pattern, and no long-term dermal NOAEL due to low toxicity (see Table 3-1).

(a) - Application rates are shown on Table 4-1 . For rangeland and public-domain forestland, the typical rate is 0.0469 lb a.i./acre and the maximum application rate is 0.0625 lb a.i./acre. For energy and mineral sites, rights-of-way, and recreation and cultural sites the typical and maximum application rates are the same (0.0625 lb a.i./acre). Therefore, the typical application rate scenario is applicable to rangeland and public-domain forestland, and the maximum application rate scenario is applicable to all five land programs.

(b) - Land type is a parameter used in AgDRIFT to predict aerial spray drift deposition rates and is not applicable to the ground scenarios.

(c) - Low and High Boom applies to a truck-mount or an All-Terrain Vehicle (ATV)-mount boom.