APPENDIX B – RISK CALCULATION SPREADSHEETS

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

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Dermal Unit Exposure (UEderm) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Dermal Dose [(AR x AT x H x UE x DAF)/BW] (mg a.e./kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	1	0.005	250	4	0.1	79.5	6.29E-03	25	15	5	3.98E+03	2.39E+03	7.95E+02
Typical	Aerial	Plane	FW	M/L	1	0.0376	250	4	0.1	79.5	4.73E-02	25	15	5	5.29E+02	3.17E+02	1.06E+02
Typical	Aerial	Helicopter	Rotary	P	1	0.005	100	4	0.1	79.5	2.52E-03	25	15	5	9.94E+03	5.96E+03	1.99E+03
Typical	Aerial	Helicopter	Rotary	M/L	1	0.0376	100	4	0.1	79.5	1.89E-02	25	15	5	1.32E+03	7.93E+02	2.64E+02
Typical	Ground	Human	Bpack	A/M/L	1	8.26	0.2	3	0.1	79.5	6.23E-03	25	15	5	4.01E+03	2.41E+03	8.02E+02
Typical	Ground	Human	Hback	A/M/L	1	8.26	0.75	6	0.1	79.5	4.68E-02	25	15	5	5.35E+02	3.21E+02	1.07E+02
Typical	Ground	ATV/UTV	Spot	A	1	1.3	0.25	5	0.1	79.5	2.04E-03	25	15	5	1.22E+04	7.34E+03	2.45E+03
Typical	Ground	ATV/UTV	Spot	M/L	1	0.0376	0.25	3	0.1	79.5	3.55E-05	25	15	5	7.05E+05	4.23E+05	1.41E+05
Typical	Ground	ATV/UTV	Spot	A/M/L	1	1.3376	0.25	5	0.1	79.5	2.10E-03	25	15	5	1.19E+04	7.13E+03	2.38E+03
Typical	Ground	ATV/UTV	B/B	A	1	0.0161	0.8	5	0.1	79.5	8.10E-05	25	15	5	3.09E+05	1.85E+05	6.17E+04
Typical	Ground	ATV/UTV	B/B	M/L	1	0.0376	0.8	3	0.1	79.5	1.14E-04	25	15	5	2.20E+05	1.32E+05	4.40E+04
Typical	Ground	ATV/UTV	B/B	A/M/L	1	0.0537	0.8	5	0.1	79.5	2.70E-04	25	15	5	9.25E+04	5.55E+04	1.85E+04
Typical	Ground	Truck Mount	Spot	A	1	1.3	0.38	6	0.1	79.5	3.73E-03	25	15	5	6.71E+03	4.02E+03	1.34E+03
Typical	Ground	Truck Mount	Spot	M/L	1	0.0376	0.38	4	0.1	79.5	7.19E-05	25	15	5	3.48E+05	2.09E+05	6.96E+04
Typical	Ground	Truck Mount	Spot	A/M/L	1	1.3376	0.38	6	0.1	79.5	3.84E-03	25	15	5	6.52E+03	3.91E+03	1.30E+03
Typical	Ground	Truck Mount	B/B	A	1	0.0161	1.5	5	0.1	79.5	1.52E-04	25	15	5	1.65E+05	9.88E+04	3.29E+04
Typical	Ground	Truck Mount	B/B	M/L	1	0.0376	1.5	3	0.1	79.5	2.13E-04	25	15	5	1.17E+05	7.05E+04	2.35E+04
Typical	Ground	Truck Mount	B/B	A/M/L	1	0.0537	1.5	5	0.1	79.5	5.07E-04	25	15	5	4.93E+04	2.96E+04	9.87E+03
Max	Aerial	Plane	FW	P	2	0.005	500	6	0.1	79.5	3.77E-02	25	15	5	6.63E+02	3.98E+02	1.33E+02
Max	Aerial	Plane	FW	M/L	2	0.0376	500	6	0.1	79.5	2.84E-01	25	15	5	**8.81E+01**	**5.29E+01**	**1.76E+01**
Max	Aerial	Helicopter	Rotary	P	2	0.005	200	6	0.1	79.5	1.51E-02	25	15	5	1.66E+03	9.94E+02	3.31E+02
Max	Aerial	Helicopter	Rotary	M/L	2	0.0376	200	6	0.1	79.5	1.14E-01	25	15	5	2.20E+02	1.32E+02	**4.40E+01**
Max	Ground	Human	Bpack	A/M/L	2	8.26	0.4	6	0.1	79.5	4.99E-02	25	15	5	5.01E+02	3.01E+02	1.00E+02
Max	Ground	Human	Hback	A/M/L	2	8.26	1	8	0.1	79.5	1.66E-01	25	15	5	1.50E+02	**9.02E+01**	**3.01E+01**
Max	Ground	ATV/UTV	Spot	A	2	1.3	0.5	9	0.1	79.5	1.47E-02	25	15	5	1.70E+03	1.02E+03	3.40E+02
Max	Ground	ATV/UTV	Spot	M/L	2	0.0376	0.5	6	0.1	79.5	2.84E-04	25	15	5	8.81E+04	5.29E+04	1.76E+04
Max	Ground	ATV/UTV	Spot	A/M/L	2	1.3376	0.5	9	0.1	79.5	1.51E-02	25	15	5	1.65E+03	9.91E+02	3.30E+02
Max	Ground	ATV/UTV	B/B	A	2	0.0161	1.6	9	0.1	79.5	5.83E-04	25	15	5	4.29E+04	2.57E+04	8.57E+03
Max	Ground	ATV/UTV	B/B	M/L	2	0.0376	1.6	5	0.1	79.5	7.57E-04	25	15	5	3.30E+04	1.98E+04	6.61E+03
Max	Ground	ATV/UTV	B/B	A/M/L	2	0.0537	1.6	9	0.1	79.5	1.95E-03	25	15	5	1.29E+04	7.71E+03	2.57E+03
Max	Ground	Truck Mount	Spot	A	2	1.3	1	10	0.1	79.5	3.27E-02	25	15	5	7.64E+02	4.59E+02	1.53E+02
Max	Ground	Truck Mount	Spot	M/L	2	0.0376	1	8	0.1	79.5	7.57E-04	25	15	5	3.30E+04	1.98E+04	6.61E+03
Max	Ground	Truck Mount	Spot	A/M/L	2	1.3376	1	10	0.1	79.5	3.37E-02	25	15	5	7.43E+02	4.46E+02	1.49E+02
Max	Ground	Truck Mount	B/B	A	2	0.0161	2.25	8	0.1	79.5	7.29E-04	25	15	5	3.43E+04	2.06E+04	6.86E+03
Max	Ground	Truck Mount	B/B	M/L	2	0.0376	2.25	6	0.1	79.5	1.28E-03	25	15	5	1.96E+04	1.17E+04	3.92E+03
Max	Ground	Truck Mount	B/B	A/M/L	2	0.0537	2.25	8	0.1	79.5	2.43E-03	25	15	5	1.03E+04	6.17E+03	2.06E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Inhalation of Herbicide
Herbicide: 2,4-D (Land; Annual/Perennial Species; Liquid Formulation)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Inhalation Unit Exposure (UEinh) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Inhalation Absorption Factor (IAF)	Body Weight (BW) (kg)	Inhalation Dose [(AR x AT x H x UE x IAF)/BW)] (mg a.e./kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	1	0.000068	250	4	1	79.5	8.55E-04	25	15	5	2.92E+04	1.75E+04	5.85E+03
Typical	Aerial	Plane	FW	M/L	1	0.000291	250	4	1	79.5	3.66E-03	25	15	5	6.83E+03	4.10E+03	1.37E+03
Typical	Aerial	Helicopter	Rotary	P	1	0.000068	100	4	1	79.5	3.42E-04	25	15	5	7.31E+04	4.38E+04	1.46E+04
Typical	Aerial	Helicopter	Rotary	M/L	1	0.000291	100	4	1	79.5	1.46E-03	25	15	5	1.71E+04	1.02E+04	3.41E+03
Typical	Ground	Human	Bpack	A/M/L	1	0.00258	0.2	3	1	79.5	1.95E-05	25	15	5	1.28E+06	7.70E+05	2.57E+05
Typical	Ground	Human	Hback	A/M/L	1	0.00258	0.75	6	1	79.5	1.46E-04	25	15	5	1.71E+05	1.03E+05	3.42E+04
Typical	Ground	ATV/UTV	Spot	A	1	0.0039	0.25	5	1	79.5	6.13E-05	25	15	5	4.08E+05	2.45E+05	8.15E+04
Typical	Ground	ATV/UTV	Spot	M/L	1	0.000291	0.25	3	1	79.5	2.75E-06	25	15	5	9.11E+06	5.46E+06	1.82E+06
Typical	Ground	ATV/UTV	Spot	A/M/L	1	0.004191	0.25	5	1	79.5	6.59E-05	25	15	5	3.79E+05	2.28E+05	7.59E+04
Typical	Ground	ATV/UTV	B/B	A	1	0.00034	0.8	5	1	79.5	1.71E-05	25	15	5	1.46E+06	8.77E+05	2.92E+05
Typical	Ground	ATV/UTV	B/B	M/L	1	0.000291	0.8	3	1	79.5	8.78E-06	25	15	5	2.85E+06	1.71E+06	5.69E+05
Typical	Ground	ATV/UTV	B/B	A/M/L	1	0.000631	0.8	5	1	79.5	3.17E-05	25	15	5	7.87E+05	4.72E+05	1.57E+05
Typical	Ground	Truck Mount	Spot	A	1	0.0039	0.38	6	1	79.5	1.12E-04	25	15	5	2.24E+05	1.34E+05	4.47E+04
Typical	Ground	Truck Mount	Spot	M/L	1	0.000291	0.38	4	1	79.5	5.56E-06	25	15	5	4.49E+06	2.70E+06	8.99E+05
Typical	Ground	Truck Mount	Spot	A/M/L	1	0.004191	0.38	6	1	79.5	1.20E-04	25	15	5	2.08E+05	1.25E+05	4.16E+04
Typical	Ground	Truck Mount	B/B	A	1	0.00034	1.5	5	1	79.5	3.21E-05	25	15	5	7.79E+05	4.68E+05	1.56E+05
Typical	Ground	Truck Mount	B/B	M/L	1	0.000291	1.5	3	1	79.5	1.65E-05	25	15	5	1.52E+06	9.11E+05	3.04E+05
Typical	Ground	Truck Mount	B/B	A/M/L	1	0.000631	1.5	5	1	79.5	5.95E-05	25	15	5	4.20E+05	2.52E+05	8.40E+04
Max	Aerial	Plane	FW	P	2	0.000068	500	6	1	79.5	5.13E-03	25	15	5	4.87E+03	2.92E+03	9.74E+02
Max	Aerial	Plane	FW	M/L	2	0.000291	500	6	1	79.5	2.20E-02	25	15	5	1.14E+03	6.83E+02	2.28E+02
Max	Aerial	Helicopter	Rotary	P	2	0.000068	200	6	1	79.5	2.05E-03	25	15	5	1.22E+04	7.31E+03	2.44E+03
Max	Aerial	Helicopter	Rotary	M/L	2	0.000291	200	6	1	79.5	8.78E-03	25	15	5	2.85E+03	1.71E+03	5.69E+02
Max	Ground	Human	Bpack	A/M/L	2	0.00258	0.4	6	1	79.5	1.56E-04	25	15	5	1.60E+05	9.63E+04	3.21E+04
Max	Ground	Human	Hback	A/M/L	2	0.00258	1	8	1	79.5	5.19E-04	25	15	5	4.81E+04	2.89E+04	9.63E+03
Max	Ground	ATV/UTV	Spot	A	2	0.0039	0.5	9	1	79.5	4.42E-04	25	15	5	5.66E+04	3.40E+04	1.13E+04
Max	Ground	ATV/UTV	Spot	M/L	2	0.000291	0.5	6	1	79.5	2.20E-05	25	15	5	1.14E+06	6.83E+05	2.28E+05
Max	Ground	ATV/UTV	Spot	A/M/L	2	0.004191	0.5	9	1	79.5	4.74E-04	25	15	5	5.27E+04	3.16E+04	1.05E+04
Max	Ground	ATV/UTV	B/B	A	2	0.00034	1.6	9	1	79.5	1.23E-04	25	15	5	2.03E+05	1.22E+05	4.06E+04
Max	Ground	ATV/UTV	B/B	M/L	2	0.000291	1.6	5	1	79.5	5.86E-05	25	15	5	4.27E+05	2.56E+05	8.54E+04
Max	Ground	ATV/UTV	B/B	A/M/L	2	0.000631	1.6	9	1	79.5	2.29E-04	25	15	5	1.09E+05	6.56E+04	2.19E+04
Max	Ground	Truck Mount	Spot	A	2	0.0039	1	10	1	79.5	9.81E-04	25	15	5	2.55E+04	1.53E+04	5.10E+03
Max	Ground	Truck Mount	Spot	M/L	2	0.000291	1	8	1	79.5	5.86E-05	25	15	5	4.27E+05	2.56E+05	8.54E+04
Max	Ground	Truck Mount	Spot	A/M/L	2	0.004191	1	10	1	79.5	1.05E-03	25	15	5	2.37E+04	1.42E+04	4.74E+03
Max	Ground	Truck Mount	B/B	A	2	0.00034	2.25	8	1	79.5	1.54E-04	25	15	5	1.62E+05	9.74E+04	3.25E+04
Max	Ground	Truck Mount	B/B	M/L	2	0.000291	2.25	6	1	79.5	9.88E-05	25	15	5	2.53E+05	1.52E+05	5.06E+04
Max	Ground	Truck Mount	B/B	A/M/L	2	0.000631	2.25	8	1	79.5	2.86E-04	25	15	5	8.75E+04	5.25E+04	1.75E+04

Calculation: Aggregate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: 2,4-D (Land; Annual/Perennial Species; Liquid Formulation)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

					Margin of Exposure (MOE) Dermal Exposure (unitless)			Margin of Exposure (MOE) Inhalation Exposure (unitless)			Target MOE (TM)		Aggregate Index (ARI) [1/(TMderm/MOEderm) + (TMinh/MOEinh)]		
Scenario	Application Type	Application Vehicle	Application Method	Receptor	Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Aerial	Plane	FW	P	3.98E+03	2.39E+03	7.95E+02	2.92E+04	1.75E+04	5.85E+03	100	100	3.50E+01	2.10E+01	7.00E+00
Typical	Aerial	Plane	FW	M/L	5.29E+02	3.17E+02	1.06E+02	6.83E+03	4.10E+03	1.37E+03	100	100	4.91E+00	2.94E+00	**9.81E-01**
Typical	Aerial	Helicopter	Rotary	P	9.94E+03	5.96E+03	1.99E+03	7.31E+04	4.38E+04	1.46E+04	100	100	8.75E+01	5.25E+01	1.75E+01
Typical	Aerial	Helicopter	Rotary	M/L	1.32E+03	7.93E+02	2.64E+02	1.71E+04	1.02E+04	3.41E+03	100	100	1.23E+01	7.36E+00	2.45E+00
Typical	Ground	Human	Bpack	A/M/L	4.01E+03	2.41E+03	8.02E+02	1.28E+06	7.70E+05	2.57E+05	100	100	4.00E+01	2.40E+01	8.00E+00
Typical	Ground	Human	Hback	A/M/L	5.35E+02	3.21E+02	1.07E+02	1.71E+05	1.03E+05	3.42E+04	100	100	5.33E+00	3.20E+00	1.07E+00
Typical	Ground	ATV/UTV	Spot	A	1.22E+04	7.34E+03	2.45E+03	4.08E+05	2.45E+05	8.15E+04	100	100	1.19E+02	7.12E+01	2.37E+01
Typical	Ground	ATV/UTV	Spot	M/L	7.05E+05	4.23E+05	1.41E+05	9.11E+06	5.46E+06	1.82E+06	100	100	6.54E+03	3.92E+03	1.31E+03
Typical	Ground	ATV/UTV	Spot	A/M/L	1.19E+04	7.13E+03	2.38E+03	3.79E+05	2.28E+05	7.59E+04	100	100	1.15E+02	6.92E+01	2.31E+01
Typical	Ground	ATV/UTV	B/B	A	3.09E+05	1.85E+05	6.17E+04	1.46E+06	8.77E+05	2.92E+05	100	100	2.55E+03	1.53E+03	5.10E+02
Typical	Ground	ATV/UTV	B/B	M/L	2.20E+05	1.32E+05	4.40E+04	2.85E+06	1.71E+06	5.69E+05	100	100	2.04E+03	1.23E+03	4.09E+02
Typical	Ground	ATV/UTV	B/B	A/M/L	9.25E+04	5.55E+04	1.85E+04	7.87E+05	4.72E+05	1.57E+05	100	100	8.28E+02	4.97E+02	1.66E+02
Typical	Ground	Truck Mount	Spot	A	6.71E+03	4.02E+03	1.34E+03	2.24E+05	1.34E+05	4.47E+04	100	100	6.51E+01	3.91E+01	1.30E+01
Typical	Ground	Truck Mount	Spot	M/L	3.48E+05	2.09E+05	6.96E+04	4.49E+06	2.70E+06	8.99E+05	100	100	3.23E+03	1.94E+03	6.46E+02
Typical	Ground	Truck Mount	Spot	A/M/L	6.52E+03	3.91E+03	1.30E+03	2.08E+05	1.25E+05	4.16E+04	100	100	6.32E+01	3.79E+01	1.26E+01
Typical	Ground	Truck Mount	B/B	A	1.65E+05	9.88E+04	3.29E+04	7.79E+05	4.68E+05	1.56E+05	100	100	1.36E+03	8.15E+02	2.72E+02
Typical	Ground	Truck Mount	B/B	M/L	1.17E+05	7.05E+04	2.35E+04	1.52E+06	9.11E+05	3.04E+05	100	100	1.09E+03	6.54E+02	2.18E+02
Typical	Ground	Truck Mount	B/B	A/M/L	4.93E+04	2.96E+04	9.87E+03	4.20E+05	2.52E+05	8.40E+04	100	100	4.42E+02	2.65E+02	8.83E+01
Max	Aerial	Plane	FW	P	6.63E+02	3.98E+02	1.33E+02	4.87E+03	2.92E+03	9.74E+02	100	100	5.83E+00	3.50E+00	1.17E+00
Max	Aerial	Plane	FW	M/L	**8.81E+01**	**5.29E+01**	**1.76E+01**	1.14E+03	6.83E+02	2.28E+02	100	100	**8.18E-01**	**4.91E-01**	**1.64E-01**
Max	Aerial	Helicopter	Rotary	P	1.66E+03	9.94E+02	3.31E+02	1.22E+04	7.31E+03	2.44E+03	100	100	1.46E+01	8.75E+00	2.92E+00
Max	Aerial	Helicopter	Rotary	M/L	2.20E+02	1.32E+02	**4.40E+01**	2.85E+03	1.71E+03	5.69E+02	100	100	2.04E+00	1.23E+00	**4.09E-01**
Max	Ground	Human	Bpack	A/M/L	5.01E+02	3.01E+02	1.00E+02	1.60E+05	9.63E+04	3.21E+04	100	100	5.00E+00	3.00E+00	**9.99E-01**
Max	Ground	Human	Hback	A/M/L	1.50E+02	**9.02E+01**	**3.01E+01**	4.81E+04	2.89E+04	9.63E+03	100	100	1.50E+00	**9.00E-01**	**3.00E-01**
Max	Ground	ATV/UTV	Spot	A	1.70E+03	1.02E+03	3.40E+02	5.66E+04	3.40E+04	1.13E+04	100	100	1.65E+01	9.90E+00	3.30E+00
Max	Ground	ATV/UTV	Spot	M/L	8.81E+04	5.29E+04	1.76E+04	1.14E+06	6.83E+05	2.28E+05	100	100	8.18E+02	4.91E+02	1.64E+02
Max	Ground	ATV/UTV	Spot	A/M/L	1.65E+03	9.91E+02	3.30E+02	5.27E+04	3.16E+04	1.05E+04	100	100	1.60E+01	9.60E+00	3.20E+00
Max	Ground	ATV/UTV	B/B	A	4.29E+04	2.57E+04	8.57E+03	2.03E+05	1.22E+05	4.06E+04	100	100	3.54E+02	2.12E+02	7.08E+01
Max	Ground	ATV/UTV	B/B	M/L	3.30E+04	1.98E+04	6.61E+03	4.27E+05	2.56E+05	8.54E+04	100	100	3.07E+02	1.84E+02	6.13E+01
Max	Ground	ATV/UTV	B/B	A/M/L	1.29E+04	7.71E+03	2.57E+03	1.09E+05	6.56E+04	2.19E+04	100	100	1.15E+02	6.90E+01	2.30E+01
Max	Ground	Truck Mount	Spot	A	7.64E+02	4.59E+02	1.53E+02	2.55E+04	1.53E+04	5.10E+03	100	100	7.42E+00	4.45E+00	1.48E+00
Max	Ground	Truck Mount	Spot	M/L	3.30E+04	1.98E+04	6.61E+03	4.27E+05	2.56E+05	8.54E+04	100	100	3.07E+02	1.84E+02	6.13E+01
Max	Ground	Truck Mount	Spot	A/M/L	7.43E+02	4.46E+02	1.49E+02	2.37E+04	1.42E+04	4.74E+03	100	100	7.20E+00	4.32E+00	1.44E+00
Max	Ground	Truck Mount	B/B	A	3.43E+04	2.06E+04	6.86E+03	1.62E+05	9.74E+04	3.25E+04	100	100	2.83E+02	1.70E+02	5.66E+01
Max	Ground	Truck Mount	B/B	M/L	1.96E+04	1.17E+04	3.92E+03	2.53E+05	1.52E+05	5.06E+04	100	100	1.82E+02	1.09E+02	3.63E+01
Max	Ground	Truck Mount	B/B	A/M/L	1.03E+04	6.17E+03	2.06E+03	8.75E+04	5.25E+04	1.75E+04	100	100	9.20E+01	5.52E+01	1.84E+01

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational Receptors (all) - Accidental Exposure (Spill)
Pathway: Dermal Contact with Herbicide
Herbicide: 2,4-D (Land; Annual/Perennial Species; Liquid Formulation)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Amount Spilled (S) (a) (L/day)	Concentration in Spill (Cs) (mg a.e./L)		Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Surface Area Ratio (SAR) (d)	Dermal Dose [(S x Cs x SAR x DAF)/BW] (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	Margin of Exposure (MOE) (unitless)	Target MOE (TM) (unitless)	Aggregate Risk Index (ARI) [1/(TM/MOE)] (unitless)
Concentrated Liquid	0.5	660,000	(b)	0.1	79.5	44%	182.64	25	0.137	100	**1.37E-03**
Mixed Liquid (Max Application Rate)	0.5	48,000	(c)	0.1	79.5	44%	13.28	25	1.882	100	**1.88E-02**
Mixed Liquid (Typical Application Rate)	0.5	24,000	(c)	0.1	79.5	44%	6.64	25	3.764	100	**3.76E-02**

(a) - It is assumed that the amount spilled is 0.5 liters.
(b) - See Table 4-6.
(c) - See Table 4-7.
(d) - It is assumed that 80% of the spill lands on clothing with a 30% penetration rate through the clothing, and that 20% lands on bare skin. Therefore, the percentage of exposed skin equals 44%: (80% spilled to clothing * 30% penetration rate) + 20% spilled to bare skin.

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

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Dermal Unit Exposure (UEderm) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Dermal Dose [(AR x AT x H x UE x DAF)/BW] (mg a.e./kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	2	0.005	250	4	0.1	79.5	1.26E-02	25	15	5	1.99E+03	1.19E+03	3.98E+02
Typical	Aerial	Plane	FW	M/L	2	0.0376	250	4	0.1	79.5	9.46E-02	25	15	5	2.64E+02	1.59E+02	**5.29E+01**
Typical	Aerial	Helicopter	Rotary	P	2	0.005	100	4	0.1	79.5	5.03E-03	25	15	5	4.97E+03	2.98E+03	9.94E+02
Typical	Aerial	Helicopter	Rotary	M/L	2	0.0376	100	4	0.1	79.5	3.78E-02	25	15	5	6.61E+02	3.96E+02	1.32E+02
Typical	Ground	Human	Bpack	A/M/L	2	8.26	0.2	3	0.1	79.5	1.25E-02	25	15	5	2.01E+03	1.20E+03	4.01E+02
Typical	Ground	Human	Hback	A/M/L	2	8.26	0.75	6	0.1	79.5	9.35E-02	25	15	5	2.67E+02	1.60E+02	**5.35E+01**
Typical	Ground	ATV/UTV	Spot	A	2	1.3	0.25	5	0.1	79.5	4.09E-03	25	15	5	6.12E+03	3.67E+03	1.22E+03
Typical	Ground	ATV/UTV	Spot	M/L	2	0.0376	0.25	3	0.1	79.5	7.09E-05	25	15	5	3.52E+05	2.11E+05	7.05E+04
Typical	Ground	ATV/UTV	Spot	A/M/L	2	1.3376	0.25	5	0.1	79.5	4.21E-03	25	15	5	5.94E+03	3.57E+03	1.19E+03
Typical	Ground	ATV/UTV	B/B	A	2	0.0161	0.8	5	0.1	79.5	1.62E-04	25	15	5	1.54E+05	9.26E+04	3.09E+04
Typical	Ground	ATV/UTV	B/B	M/L	2	0.0376	0.8	3	0.1	79.5	2.27E-04	25	15	5	1.10E+05	6.61E+04	2.20E+04
Typical	Ground	ATV/UTV	B/B	A/M/L	2	0.0537	0.8	5	0.1	79.5	5.40E-04	25	15	5	4.63E+04	2.78E+04	9.25E+03
Typical	Ground	Truck Mount	Spot	A	2	1.3	0.38	6	0.1	79.5	7.46E-03	25	15	5	3.35E+03	2.01E+03	6.71E+02
Typical	Ground	Truck Mount	Spot	M/L	2	0.0376	0.38	4	0.1	79.5	1.44E-04	25	15	5	1.74E+05	1.04E+05	3.48E+04
Typical	Ground	Truck Mount	Spot	A/M/L	2	1.3376	0.38	6	0.1	79.5	7.67E-03	25	15	5	3.26E+03	1.96E+03	6.52E+02
Typical	Ground	Truck Mount	B/B	A	2	0.0161	1.5	5	0.1	79.5	3.04E-04	25	15	5	8.23E+04	4.94E+04	1.65E+04
Typical	Ground	Truck Mount	B/B	M/L	2	0.0376	1.5	3	0.1	79.5	4.26E-04	25	15	5	5.87E+04	3.52E+04	1.17E+04
Typical	Ground	Truck Mount	B/B	A/M/L	2	0.0537	1.5	5	0.1	79.5	1.01E-03	25	15	5	2.47E+04	1.48E+04	4.93E+03
Max	Aerial	Plane	FW	P	4	0.005	500	6	0.1	79.5	7.55E-02	25	15	5	3.31E+02	1.99E+02	**6.63E+01**
Max	Aerial	Plane	FW	M/L	4	0.0376	500	6	0.1	79.5	5.68E-01	25	15	5	**4.40E+01**	**2.64E+01**	**8.81E+00**
Max	Aerial	Helicopter	Rotary	P	4	0.005	200	6	0.1	79.5	3.02E-02	25	15	5	8.28E+02	4.97E+02	1.66E+02
Max	Aerial	Helicopter	Rotary	M/L	4	0.0376	200	6	0.1	79.5	2.27E-01	25	15	5	1.10E+02	**6.61E+01**	**2.20E+01**
Max	Ground	Human	Bpack	A/M/L	4	8.26	0.4	6	0.1	79.5	9.97E-02	25	15	5	2.51E+02	1.50E+02	**5.01E+01**
Max	Ground	Human	Hback	A/M/L	4	8.26	1	8	0.1	79.5	3.32E-01	25	15	5	**7.52E+01**	**4.51E+01**	**1.50E+01**
Max	Ground	ATV/UTV	Spot	A	4	1.3	0.5	9	0.1	79.5	2.94E-02	25	15	5	8.49E+02	5.10E+02	1.70E+02
Max	Ground	ATV/UTV	Spot	M/L	4	0.0376	0.5	6	0.1	79.5	5.68E-04	25	15	5	4.40E+04	2.64E+04	8.81E+03
Max	Ground	ATV/UTV	Spot	A/M/L	4	1.3376	0.5	9	0.1	79.5	3.03E-02	25	15	5	8.25E+02	4.95E+02	1.65E+02
Max	Ground	ATV/UTV	B/B	A	4	0.0161	1.6	9	0.1	79.5	1.17E-03	25	15	5	2.14E+04	1.29E+04	4.29E+03
Max	Ground	ATV/UTV	B/B	M/L	4	0.0376	1.6	5	0.1	79.5	1.51E-03	25	15	5	1.65E+04	9.91E+03	3.30E+03
Max	Ground	ATV/UTV	B/B	A/M/L	4	0.0537	1.6	9	0.1	79.5	3.89E-03	25	15	5	6.43E+03	3.86E+03	1.29E+03
Max	Ground	Truck Mount	Spot	A	4	1.3	1	10	0.1	79.5	6.54E-02	25	15	5	3.82E+02	2.29E+02	**7.64E+01**
Max	Ground	Truck Mount	Spot	M/L	4	0.0376	1	8	0.1	79.5	1.51E-03	25	15	5	1.65E+04	9.91E+03	3.30E+03
Max	Ground	Truck Mount	Spot	A/M/L	4	1.3376	1	10	0.1	79.5	6.73E-02	25	15	5	3.71E+02	2.23E+02	**7.43E+01**
Max	Ground	Truck Mount	B/B	A	4	0.0161	2.25	8	0.1	79.5	1.46E-03	25	15	5	1.71E+04	1.03E+04	3.43E+03
Max	Ground	Truck Mount	B/B	M/L	4	0.0376	2.25	6	0.1	79.5	2.55E-03	25	15	5	9.79E+03	5.87E+03	1.96E+03
Max	Ground	Truck Mount	B/B	A/M/L	4	0.0537	2.25	8	0.1	79.5	4.86E-03	25	15	5	5.14E+03	3.08E+03	1.03E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Inhalation of Herbicide
Herbicide: 2,4-D (Land; Woody Species; Liquid Formulation)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Inhalation Unit Exposure (UEinh) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Inhalation Absorption Factor (IAF)	Body Weight (BW) (kg)	Inhalation Dose [(AR x AT x H x UE x IAF)/BW)] (mg a.e./kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	2	0.000068	250	4	1	79.5	1.71E-03	25	15	5	1.46E+04	8.77E+03	2.92E+03
Typical	Aerial	Plane	FW	M/L	2	0.000291	250	4	1	79.5	7.32E-03	25	15	5	3.41E+03	2.05E+03	6.83E+02
Typical	Aerial	Helicopter	Rotary	P	2	0.000068	100	4	1	79.5	6.84E-04	25	15	5	3.65E+04	2.19E+04	7.31E+03
Typical	Aerial	Helicopter	Rotary	M/L	2	0.000291	100	4	1	79.5	2.93E-03	25	15	5	8.54E+03	5.12E+03	1.71E+03
Typical	Ground	Human	Bpack	A/M/L	2	0.00258	0.2	3	1	79.5	3.89E-05	25	15	5	6.42E+05	3.85E+05	1.28E+05
Typical	Ground	Human	Hback	A/M/L	2	0.00258	0.75	6	1	79.5	2.92E-04	25	15	5	8.56E+04	5.14E+04	1.71E+04
Typical	Ground	ATV/UTV	Spot	A	2	0.0039	0.25	5	1	79.5	1.23E-04	25	15	5	2.04E+05	1.22E+05	4.08E+04
Typical	Ground	ATV/UTV	Spot	M/L	2	0.000291	0.25	3	1	79.5	5.49E-06	25	15	5	4.55E+06	2.73E+06	9.11E+05
Typical	Ground	ATV/UTV	Spot	A/M/L	2	0.004191	0.25	5	1	79.5	1.32E-04	25	15	5	1.90E+05	1.14E+05	3.79E+04
Typical	Ground	ATV/UTV	B/B	A	2	0.00034	0.8	5	1	79.5	3.42E-05	25	15	5	7.31E+05	4.38E+05	1.46E+05
Typical	Ground	ATV/UTV	B/B	M/L	2	0.000291	0.8	3	1	79.5	1.76E-05	25	15	5	1.42E+06	8.54E+05	2.85E+05
Typical	Ground	ATV/UTV	B/B	A/M/L	2	0.000631	0.8	5	1	79.5	6.35E-05	25	15	5	3.94E+05	2.36E+05	7.87E+04
Typical	Ground	Truck Mount	Spot	A	2	0.0039	0.38	6	1	79.5	2.24E-04	25	15	5	1.12E+05	6.71E+04	2.24E+04
Typical	Ground	Truck Mount	Spot	M/L	2	0.000291	0.38	4	1	79.5	1.11E-05	25	15	5	2.25E+06	1.35E+06	4.49E+05
Typical	Ground	Truck Mount	Spot	A/M/L	2	0.004191	0.38	6	1	79.5	2.40E-04	25	15	5	1.04E+05	6.24E+04	2.08E+04
Typical	Ground	Truck Mount	B/B	A	2	0.00034	1.5	5	1	79.5	6.42E-05	25	15	5	3.90E+05	2.34E+05	7.79E+04
Typical	Ground	Truck Mount	B/B	M/L	2	0.000291	1.5	3	1	79.5	3.29E-05	25	15	5	7.59E+05	4.55E+05	1.52E+05
Typical	Ground	Truck Mount	B/B	A/M/L	2	0.000631	1.5	5	1	79.5	1.19E-04	25	15	5	2.10E+05	1.26E+05	4.20E+04
Max	Aerial	Plane	FW	P	4	0.000068	500	6	1	79.5	1.03E-02	25	15	5	2.44E+03	1.46E+03	4.87E+02
Max	Aerial	Plane	FW	M/L	4	0.000291	500	6	1	79.5	4.39E-02	25	15	5	5.69E+02	3.41E+02	1.14E+02
Max	Aerial	Helicopter	Rotary	P	4	0.000068	200	6	1	79.5	4.11E-03	25	15	5	6.09E+03	3.65E+03	1.22E+03
Max	Aerial	Helicopter	Rotary	M/L	4	0.000291	200	6	1	79.5	1.76E-02	25	15	5	1.42E+03	8.54E+02	2.85E+02
Max	Ground	Human	Bpack	A/M/L	4	0.00258	0.4	6	1	79.5	3.12E-04	25	15	5	8.02E+04	4.81E+04	1.60E+04
Max	Ground	Human	Hback	A/M/L	4	0.00258	1	8	1	79.5	1.04E-03	25	15	5	2.41E+04	1.44E+04	4.81E+03
Max	Ground	ATV/UTV	Spot	A	4	0.0039	0.5	9	1	79.5	8.83E-04	25	15	5	2.83E+04	1.70E+04	5.66E+03
Max	Ground	ATV/UTV	Spot	M/L	4	0.000291	0.5	6	1	79.5	4.39E-05	25	15	5	5.69E+05	3.41E+05	1.14E+05
Max	Ground	ATV/UTV	Spot	A/M/L	4	0.004191	0.5	9	1	79.5	9.49E-04	25	15	5	2.63E+04	1.58E+04	5.27E+03
Max	Ground	ATV/UTV	B/B	A	4	0.00034	1.6	9	1	79.5	2.46E-04	25	15	5	1.01E+05	6.09E+04	2.03E+04
Max	Ground	ATV/UTV	B/B	M/L	4	0.000291	1.6	5	1	79.5	1.17E-04	25	15	5	2.13E+05	1.28E+05	4.27E+04
Max	Ground	ATV/UTV	B/B	A/M/L	4	0.000631	1.6	9	1	79.5	4.57E-04	25	15	5	5.47E+04	3.28E+04	1.09E+04
Max	Ground	Truck Mount	Spot	A	4	0.0039	1	10	1	79.5	1.96E-03	25	15	5	1.27E+04	7.64E+03	2.55E+03
Max	Ground	Truck Mount	Spot	M/L	4	0.000291	1	8	1	79.5	1.17E-04	25	15	5	2.13E+05	1.28E+05	4.27E+04
Max	Ground	Truck Mount	Spot	A/M/L	4	0.004191	1	10	1	79.5	2.11E-03	25	15	5	1.19E+04	7.11E+03	2.37E+03
Max	Ground	Truck Mount	B/B	A	4	0.00034	2.25	8	1	79.5	3.08E-04	25	15	5	8.12E+04	4.87E+04	1.62E+04
Max	Ground	Truck Mount	B/B	M/L	4	0.000291	2.25	6	1	79.5	1.98E-04	25	15	5	1.26E+05	7.59E+04	2.53E+04
Max	Ground	Truck Mount	B/B	A/M/L	4	0.000631	2.25	8	1	79.5	5.71E-04	25	15	5	4.37E+04	2.62E+04	8.75E+03

Calculation: Aggregate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: 2,4-D (Land; Woody Species; Liquid Formulation)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

					Margin of Exposure (MOE) Dermal Exposure (unitless)			Margin of Exposure (MOE) Inhalation Exposure (unitless)			Target MOE (TM)		Aggregate Index (ARI) [1/(TMderm/MOEderm) + (TMinh/MOEinh)]		
Scenario	Application Type	Application Vehicle	Application Method	Receptor	Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Aerial	Plane	FW	P	1.99E+03	1.19E+03	3.98E+02	1.46E+04	8.77E+03	2.92E+03	100	100	1.75E+01	1.05E+01	3.50E+00
Typical	Aerial	Plane	FW	M/L	2.64E+02	1.59E+02	**5.29E+01**	3.41E+03	2.05E+03	6.83E+02	100	100	2.45E+00	1.47E+00	**4.91E-01**
Typical	Aerial	Helicopter	Rotary	P	4.97E+03	2.98E+03	9.94E+02	3.65E+04	2.19E+04	7.31E+03	100	100	4.37E+01	2.62E+01	8.75E+00
Typical	Aerial	Helicopter	Rotary	M/L	6.61E+02	3.96E+02	1.32E+02	8.54E+03	5.12E+03	1.71E+03	100	100	6.13E+00	3.68E+00	1.23E+00
Typical	Ground	Human	Bpack	A/M/L	2.01E+03	1.20E+03	4.01E+02	6.42E+05	3.85E+05	1.28E+05	100	100	2.00E+01	1.20E+01	4.00E+00
Typical	Ground	Human	Hback	A/M/L	2.67E+02	1.60E+02	**5.35E+01**	8.56E+04	5.14E+04	1.71E+04	100	100	2.67E+00	1.60E+00	**5.33E-01**
Typical	Ground	ATV/UTV	Spot	A	6.12E+03	3.67E+03	1.22E+03	2.04E+05	1.22E+05	4.08E+04	100	100	5.94E+01	3.56E+01	1.19E+01
Typical	Ground	ATV/UTV	Spot	M/L	3.52E+05	2.11E+05	7.05E+04	4.55E+06	2.73E+06	9.11E+05	100	100	3.27E+03	1.96E+03	6.54E+02
Typical	Ground	ATV/UTV	Spot	A/M/L	5.94E+03	3.57E+03	1.19E+03	1.90E+05	1.14E+05	3.79E+04	100	100	5.76E+01	3.46E+01	1.15E+01
Typical	Ground	ATV/UTV	B/B	A	1.54E+05	9.26E+04	3.09E+04	7.31E+05	4.38E+05	1.46E+05	100	100	1.27E+03	7.64E+02	2.55E+02
Typical	Ground	ATV/UTV	B/B	M/L	1.10E+05	6.61E+04	2.20E+04	1.42E+06	8.54E+05	2.85E+05	100	100	1.02E+03	6.13E+02	2.04E+02
Typical	Ground	ATV/UTV	B/B	A/M/L	4.63E+04	2.78E+04	9.25E+03	3.94E+05	2.36E+05	7.87E+04	100	100	4.14E+02	2.48E+02	8.28E+01
Typical	Ground	Truck Mount	Spot	A	3.35E+03	2.01E+03	6.71E+02	1.12E+05	6.71E+04	2.24E+04	100	100	3.26E+01	1.95E+01	6.51E+00
Typical	Ground	Truck Mount	Spot	M/L	1.74E+05	1.04E+05	3.48E+04	2.25E+06	1.35E+06	4.49E+05	100	100	1.61E+03	9.68E+02	3.23E+02
Typical	Ground	Truck Mount	Spot	A/M/L	3.26E+03	1.96E+03	6.52E+02	1.04E+05	6.24E+04	2.08E+04	100	100	3.16E+01	1.90E+01	6.32E+00
Typical	Ground	Truck Mount	B/B	A	8.23E+04	4.94E+04	1.65E+04	3.90E+05	2.34E+05	7.79E+04	100	100	6.79E+02	4.08E+02	1.36E+02
Typical	Ground	Truck Mount	B/B	M/L	5.87E+04	3.52E+04	1.17E+04	7.59E+05	4.55E+05	1.52E+05	100	100	5.45E+02	3.27E+02	1.09E+02
Typical	Ground	Truck Mount	B/B	A/M/L	2.47E+04	1.48E+04	4.93E+03	2.10E+05	1.26E+05	4.20E+04	100	100	2.21E+02	1.32E+02	4.42E+01
Max	Aerial	Plane	FW	P	3.31E+02	1.99E+02	**6.63E+01**	2.44E+03	1.46E+03	4.87E+02	100	100	2.92E+00	1.75E+00	**5.83E-01**
Max	Aerial	Plane	FW	M/L	**4.40E+01**	**2.64E+01**	**8.81E+00**	5.69E+02	3.41E+02	1.14E+02	100	100	**4.09E-01**	**2.45E-01**	**8.18E-02**
Max	Aerial	Helicopter	Rotary	P	8.28E+02	4.97E+02	1.66E+02	6.09E+03	3.65E+03	1.22E+03	100	100	7.29E+00	4.37E+00	1.46E+00
Max	Aerial	Helicopter	Rotary	M/L	1.10E+02	**6.61E+01**	**2.20E+01**	1.42E+03	8.54E+02	2.85E+02	100	100	1.02E+00	**6.13E-01**	**2.04E-01**
Max	Ground	Human	Bpack	A/M/L	2.51E+02	1.50E+02	**5.01E+01**	8.02E+04	4.81E+04	1.60E+04	100	100	2.50E+00	1.50E+00	**5.00E-01**
Max	Ground	Human	Hback	A/M/L	**7.52E+01**	**4.51E+01**	**1.50E+01**	2.41E+04	1.44E+04	4.81E+03	100	100	**7.50E-01**	**4.50E-01**	**1.50E-01**
Max	Ground	ATV/UTV	Spot	A	8.49E+02	5.10E+02	1.70E+02	2.83E+04	1.70E+04	5.66E+03	100	100	8.25E+00	4.95E+00	1.65E+00
Max	Ground	ATV/UTV	Spot	M/L	4.40E+04	2.64E+04	8.81E+03	5.69E+05	3.41E+05	1.14E+05	100	100	4.09E+02	2.45E+02	8.18E+01
Max	Ground	ATV/UTV	Spot	A/M/L	8.25E+02	4.95E+02	1.65E+02	2.63E+04	1.58E+04	5.27E+03	100	100	8.00E+00	4.80E+00	1.60E+00
Max	Ground	ATV/UTV	B/B	A	2.14E+04	1.29E+04	4.29E+03	1.01E+05	6.09E+04	2.03E+04	100	100	1.77E+02	1.06E+02	3.54E+01
Max	Ground	ATV/UTV	B/B	M/L	1.65E+04	9.91E+03	3.30E+03	2.13E+05	1.28E+05	4.27E+04	100	100	1.53E+02	9.20E+01	3.07E+01
Max	Ground	ATV/UTV	B/B	A/M/L	6.43E+03	3.86E+03	1.29E+03	5.47E+04	3.28E+04	1.09E+04	100	100	5.75E+01	3.45E+01	1.15E+01
Max	Ground	Truck Mount	Spot	A	3.82E+02	2.29E+02	**7.64E+01**	1.27E+04	7.64E+03	2.55E+03	100	100	3.71E+00	2.23E+00	**7.42E-01**
Max	Ground	Truck Mount	Spot	M/L	1.65E+04	9.91E+03	3.30E+03	2.13E+05	1.28E+05	4.27E+04	100	100	1.53E+02	9.20E+01	3.07E+01
Max	Ground	Truck Mount	Spot	A/M/L	3.71E+02	2.23E+02	**7.43E+01**	1.19E+04	7.11E+03	2.37E+03	100	100	3.60E+00	2.16E+00	**7.20E-01**
Max	Ground	Truck Mount	B/B	A	1.71E+04	1.03E+04	3.43E+03	8.12E+04	4.87E+04	1.62E+04	100	100	1.42E+02	8.49E+01	2.83E+01
Max	Ground	Truck Mount	B/B	M/L	9.79E+03	5.87E+03	1.96E+03	1.26E+05	7.59E+04	2.53E+04	100	100	9.09E+01	5.45E+01	1.82E+01
Max	Ground	Truck Mount	B/B	A/M/L	5.14E+03	3.08E+03	1.03E+03	4.37E+04	2.62E+04	8.75E+03	100	100	4.60E+01	2.76E+01	9.20E+00

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational Receptors (all) - Accidental Exposure (Spill)
Pathway: Dermal Contact with Herbicide
Herbicide: 2,4-D (Land; Woody Species; Liquid Formulation)
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Amount Spilled (S) (a) (L/day)	Concentration in Spill (Cs) (mg a.e./L)		Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Surface Area Ratio (SAR) (d)	Dermal Dose [(S x Cs x SAR x DAF)/BW] (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	Margin of Exposure (MOE) (unitless)	Target MOE (TM) (unitless)	Aggregate Risk Index (ARI) [1/(TM/MOE)] (unitless)
Concentrated Liquid	0.5	660,000	(b)	0.1	79.5	44%	182.64	25	0.137	100	**1.37E-03**
Mixed Liquid (Max Application Rate)	0.5	48,000	(c)	0.1	79.5	44%	13.28	25	1.882	100	**1.88E-02**
Mixed Liquid (Typical Application Rate)	0.5	24,000	(c)	0.1	79.5	44%	6.64	25	3.764	100	**3.76E-02**

(a) - It is assumed that the amount spilled is 0.5 liters.
(b) - See Table 4-6.
(c) - See Table 4-7.
(d) - It is assumed that 80% of the spill lands on clothing with a 30% penetration rate through the clothing, and that 20% lands on bare skin. Therefore, the percentage of exposed skin equals 44%: (80% spilled to clothing * 30% penetration rate) + 20% spilled to bare skin.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with Herbicide
Herbicide: 2,4-D (Aquatic, Floating and Emerged; Liquid Formulation)
Program: Aquatic Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Dermal Unit Exposure (UEderm) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Dermal Dose [(AR x AT x H x UE x DAF)/BW] (mg a.e./kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	2	0.005	250	4	0.1	79.5	1.26E-02	25	15	5	1.99E+03	1.19E+03	3.98E+02
Typical	Aerial	Plane	FW	M/L	2	0.0376	250	4	0.1	79.5	9.46E-02	25	15	5	2.64E+02	1.59E+02	**5.29E+01**
Typical	Aerial	Helicopter	Rotary	P	2	0.005	100	4	0.1	79.5	5.03E-03	25	15	5	4.97E+03	2.98E+03	9.94E+02
Typical	Aerial	Helicopter	Rotary	M/L	2	0.0376	100	4	0.1	79.5	3.78E-02	25	15	5	6.61E+02	3.96E+02	1.32E+02
Typical	Ground	Human	Bpack	A/M/L	2	8.26	0.2	3	0.1	79.5	1.25E-02	25	15	5	2.01E+03	1.20E+03	4.01E+02
Typical	Ground	Human	Hback	A/M/L	2	8.26	0.75	6	0.1	79.5	9.35E-02	25	15	5	2.67E+02	1.60E+02	**5.35E+01**
Typical	Ground	ATV/UTV	Spot	A	2	1.3	0.25	5	0.1	79.5	4.09E-03	25	15	5	6.12E+03	3.67E+03	1.22E+03
Typical	Ground	ATV/UTV	Spot	M/L	2	0.0376	0.25	3	0.1	79.5	7.09E-05	25	15	5	3.52E+05	2.11E+05	7.05E+04
Typical	Ground	ATV/UTV	Spot	A/M/L	2	1.3376	0.25	5	0.1	79.5	4.21E-03	25	15	5	5.94E+03	3.57E+03	1.19E+03
Typical	Ground	ATV/UTV	B/B	A	2	0.0161	0.8	5	0.1	79.5	1.62E-04	25	15	5	1.54E+05	9.26E+04	3.09E+04
Typical	Ground	ATV/UTV	B/B	M/L	2	0.0376	0.8	3	0.1	79.5	2.27E-04	25	15	5	1.10E+05	6.61E+04	2.20E+04
Typical	Ground	ATV/UTV	B/B	A/M/L	2	0.0537	0.8	5	0.1	79.5	5.40E-04	25	15	5	4.63E+04	2.78E+04	9.25E+03
Typical	Ground	Truck Mount	Spot	A	2	1.3	0.38	6	0.1	79.5	7.46E-03	25	15	5	3.35E+03	2.01E+03	6.71E+02
Typical	Ground	Truck Mount	Spot	M/L	2	0.0376	0.38	4	0.1	79.5	1.44E-04	25	15	5	1.74E+05	1.04E+05	3.48E+04
Typical	Ground	Truck Mount	Spot	A/M/L	2	1.3376	0.38	6	0.1	79.5	7.67E-03	25	15	5	3.26E+03	1.96E+03	6.52E+02
Typical	Ground	Truck Mount	B/B	A	2	0.0161	1.5	5	0.1	79.5	3.04E-04	25	15	5	8.23E+04	4.94E+04	1.65E+04
Typical	Ground	Truck Mount	B/B	M/L	2	0.0376	1.5	3	0.1	79.5	4.26E-04	25	15	5	5.87E+04	3.52E+04	1.17E+04
Typical	Ground	Truck Mount	B/B	A/M/L	2	0.0537	1.5	5	0.1	79.5	1.01E-03	25	15	5	2.47E+04	1.48E+04	4.93E+03
Typical	Aquatic	Boat	Spot	A	2	1.3	0.63	4	0.1	79.5	8.24E-03	25	15	5	3.03E+03	1.82E+03	6.07E+02
Typical	Aquatic	Boat	Spot	M/L	2	0.0376	0.63	1	0.1	79.5	5.96E-05	25	15	5	4.20E+05	2.52E+05	8.39E+04
Typical	Aquatic	Boat	Spot	A/M/L	2	1.3376	0.63	4	0.1	79.5	8.48E-03	25	15	5	2.95E+03	1.77E+03	5.90E+02
Typical	Aquatic	Boat	B/B	A	2	0.0161	1.3	4	0.1	79.5	2.11E-04	25	15	5	1.19E+05	7.12E+04	2.37E+04
Typical	Aquatic	Boat	B/B	M/L	2	0.0376	1.3	1	0.1	79.5	1.23E-04	25	15	5	2.03E+05	1.22E+05	4.07E+04
Typical	Aquatic	Boat	B/B	A/M/L	2	0.0537	1.3	4	0.1	79.5	7.02E-04	25	15	5	3.56E+04	2.14E+04	7.12E+03
Max	Aerial	Plane	FW	P	4	0.005	500	6	0.1	79.5	7.55E-02	25	15	5	3.31E+02	1.99E+02	**6.63E+01**
Max	Aerial	Plane	FW	M/L	4	0.0376	500	6	0.1	79.5	5.68E-01	25	15	5	**4.40E+01**	**2.64E+01**	**8.81E+00**
Max	Aerial	Helicopter	Rotary	P	4	0.005	200	6	0.1	79.5	3.02E-02	25	15	5	8.28E+02	4.97E+02	1.66E+02
Max	Aerial	Helicopter	Rotary	M/L	4	0.0376	200	6	0.1	79.5	2.27E-01	25	15	5	1.10E+02	**6.61E+01**	**2.20E+01**
Max	Ground	Human	Bpack	A/M/L	4	8.26	0.4	6	0.1	79.5	9.97E-02	25	15	5	2.51E+02	1.50E+02	**5.01E+01**
Max	Ground	Human	Hback	A/M/L	4	8.26	1	8	0.1	79.5	3.32E-01	25	15	5	**7.52E+01**	**4.51E+01**	**1.50E+01**
Max	Ground	ATV/UTV	Spot	A	4	1.3	0.5	9	0.1	79.5	2.94E-02	25	15	5	8.49E+02	5.10E+02	1.70E+02
Max	Ground	ATV/UTV	Spot	M/L	4	0.0376	0.5	6	0.1	79.5	5.68E-04	25	15	5	4.40E+04	2.64E+04	8.81E+03
Max	Ground	ATV/UTV	Spot	A/M/L	4	1.3376	0.5	9	0.1	79.5	3.03E-02	25	15	5	8.25E+02	4.95E+02	1.65E+02
Max	Ground	ATV/UTV	B/B	A	4	0.0161	1.6	9	0.1	79.5	1.17E-03	25	15	5	2.14E+04	1.29E+04	4.29E+03
Max	Ground	ATV/UTV	B/B	M/L	4	0.0376	1.6	5	0.1	79.5	1.51E-03	25	15	5	1.65E+04	9.91E+03	3.30E+03
Max	Ground	ATV/UTV	B/B	A/M/L	4	0.0537	1.6	9	0.1	79.5	3.89E-03	25	15	5	6.43E+03	3.86E+03	1.29E+03
Max	Ground	Truck Mount	Spot	A	4	1.3	1	10	0.1	79.5	6.54E-02	25	15	5	3.82E+02	2.29E+02	**7.64E+01**
Max	Ground	Truck Mount	Spot	M/L	4	0.0376	1	8	0.1	79.5	1.51E-03	25	15	5	1.65E+04	9.91E+03	3.30E+03
Max	Ground	Truck Mount	Spot	A/M/L	4	1.3376	1	10	0.1	79.5	6.73E-02	25	15	5	3.71E+02	2.23E+02	**7.43E+01**
Max	Ground	Truck Mount	B/B	A	4	0.0161	2.25	8	0.1	79.5	1.46E-03	25	15	5	1.71E+04	1.03E+04	3.43E+03
Max	Ground	Truck Mount	B/B	M/L	4	0.0376	2.25	6	0.1	79.5	2.55E-03	25	15	5	9.79E+03	5.87E+03	1.96E+03
Max	Ground	Truck Mount	B/B	A/M/L	4	0.0537	2.25	8	0.1	79.5	4.86E-03	25	15	5	5.14E+03	3.08E+03	1.03E+03
Max	Aquatic	Boat	Spot	A	4	1.3	2	6	0.1	79.5	7.85E-02	25	15	5	3.19E+02	1.91E+02	**6.37E+01**
Max	Aquatic	Boat	Spot	M/L	4	0.0376	2	2	0.1	79.5	7.57E-04	25	15	5	3.30E+04	1.98E+04	6.61E+03
Max	Aquatic	Boat	Spot	A/M/L	4	1.3376	2	6	0.1	79.5	8.08E-02	25	15	5	3.10E+02	1.86E+02	**6.19E+01**
Max	Aquatic	Boat	B/B	A	4	0.0161	3	6	0.1	79.5	1.46E-03	25	15	5	1.71E+04	1.03E+04	3.43E+03
Max	Aquatic	Boat	B/B	M/L	4	0.0376	3	2	0.1	79.5	1.14E-03	25	15	5	2.20E+04	1.32E+04	4.40E+03
Max	Aquatic	Boat	B/B	A/M/L	4	0.0537	3	6	0.1	79.5	4.86E-03	25	15	5	5.14E+03	3.08E+03	1.03E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Inhalation of Herbicide
Herbicide: 2,4-D (Aquatic, Floating and Emerged; Liquid Formulation)
Program: Aquatic Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Inhalation Unit Exposure (UEinh) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Inhalation Absorption Factor (IAF)	Body Weight (BW) (kg)	Inhalation Dose [(AR x AT x H x UE x IAF)/BW)] (mg a.e./kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	2	0.000068	250	4	1	79.5	1.71E-03	25	15	5	1.46E+04	8.77E+03	2.92E+03
Typical	Aerial	Plane	FW	M/L	2	0.000291	250	4	1	79.5	7.32E-03	25	15	5	3.41E+03	2.05E+03	6.83E+02
Typical	Aerial	Helicopter	Rotary	P	2	0.000068	100	4	1	79.5	6.84E-04	25	15	5	3.65E+04	2.19E+04	7.31E+03
Typical	Aerial	Helicopter	Rotary	M/L	2	0.000291	100	4	1	79.5	2.93E-03	25	15	5	8.54E+03	5.12E+03	1.71E+03
Typical	Ground	Human	Bpack	A/M/L	2	0.00258	0.2	3	1	79.5	3.89E-05	25	15	5	6.42E+05	3.85E+05	1.28E+05
Typical	Ground	Human	Hback	A/M/L	2	0.00258	0.75	6	1	79.5	2.92E-04	25	15	5	8.56E+04	5.14E+04	1.71E+04
Typical	Ground	ATV/UTV	Spot	A	2	0.0039	0.25	5	1	79.5	1.23E-04	25	15	5	2.04E+05	1.22E+05	4.08E+04
Typical	Ground	ATV/UTV	Spot	M/L	2	0.000291	0.25	3	1	79.5	5.49E-06	25	15	5	4.55E+06	2.73E+06	9.11E+05
Typical	Ground	ATV/UTV	Spot	A/M/L	2	0.004191	0.25	5	1	79.5	1.32E-04	25	15	5	1.90E+05	1.14E+05	3.79E+04
Typical	Ground	ATV/UTV	B/B	A	2	0.00034	0.8	5	1	79.5	3.42E-05	25	15	5	7.31E+05	4.38E+05	1.46E+05
Typical	Ground	ATV/UTV	B/B	M/L	2	0.000291	0.8	3	1	79.5	1.76E-05	25	15	5	1.42E+06	8.54E+05	2.85E+05
Typical	Ground	ATV/UTV	B/B	A/M/L	2	0.000631	0.8	5	1	79.5	6.35E-05	25	15	5	3.94E+05	2.36E+05	7.87E+04
Typical	Ground	Truck Mount	Spot	A	2	0.0039	0.38	6	1	79.5	2.24E-04	25	15	5	1.12E+05	6.71E+04	2.24E+04
Typical	Ground	Truck Mount	Spot	M/L	2	0.000291	0.38	4	1	79.5	1.11E-05	25	15	5	2.25E+06	1.35E+06	4.49E+05
Typical	Ground	Truck Mount	Spot	A/M/L	2	0.004191	0.38	6	1	79.5	2.40E-04	25	15	5	1.04E+05	6.24E+04	2.08E+04
Typical	Ground	Truck Mount	B/B	A	2	0.00034	1.5	5	1	79.5	6.42E-05	25	15	5	3.90E+05	2.34E+05	7.79E+04
Typical	Ground	Truck Mount	B/B	M/L	2	0.000291	1.5	3	1	79.5	3.29E-05	25	15	5	7.59E+05	4.55E+05	1.52E+05
Typical	Ground	Truck Mount	B/B	A/M/L	2	0.000631	1.5	5	1	79.5	1.19E-04	25	15	5	2.10E+05	1.26E+05	4.20E+04
Typical	Aquatic	Boat	Spot	A	2	0.0039	0.63	4	1	79.5	2.47E-04	25	15	5	1.01E+05	6.07E+04	2.02E+04
Typical	Aquatic	Boat	Spot	M/L	2	0.000291	0.63	1	1	79.5	4.61E-06	25	15	5	5.42E+06	3.25E+06	1.08E+06
Typical	Aquatic	Boat	Spot	A/M/L	2	0.004191	0.63	4	1	79.5	2.66E-04	25	15	5	9.41E+04	5.65E+04	1.88E+04
Typical	Aquatic	Boat	B/B	A	2	0.00034	1.3	4	1	79.5	4.45E-05	25	15	5	5.62E+05	3.37E+05	1.12E+05
Typical	Aquatic	Boat	B/B	M/L	2	0.000291	1.3	1	1	79.5	9.52E-06	25	15	5	2.63E+06	1.58E+06	5.25E+05
Typical	Aquatic	Boat	B/B	A/M/L	2	0.000631	1.3	4	1	79.5	8.25E-05	25	15	5	3.03E+05	1.82E+05	6.06E+04
Max	Aerial	Plane	FW	P	4	0.000068	500	6	1	79.5	1.03E-02	25	15	5	2.44E+03	1.46E+03	4.87E+02
Max	Aerial	Plane	FW	M/L	4	0.000291	500	6	1	79.5	4.39E-02	25	15	5	5.69E+02	3.41E+02	1.14E+02
Max	Aerial	Helicopter	Rotary	P	4	0.000068	200	6	1	79.5	4.11E-03	25	15	5	6.09E+03	3.65E+03	1.22E+03
Max	Aerial	Helicopter	Rotary	M/L	4	0.000291	200	6	1	79.5	1.76E-02	25	15	5	1.42E+03	8.54E+02	2.85E+02
Max	Ground	Human	Bpack	A/M/L	4	0.00258	0.4	6	1	79.5	3.12E-04	25	15	5	8.02E+04	4.81E+04	1.60E+04
Max	Ground	Human	Hback	A/M/L	4	0.00258	1	8	1	79.5	1.04E-03	25	15	5	2.41E+04	1.44E+04	4.81E+03
Max	Ground	ATV/UTV	Spot	A	4	0.0039	0.5	9	1	79.5	8.83E-04	25	15	5	2.83E+04	1.70E+04	5.66E+03
Max	Ground	ATV/UTV	Spot	M/L	4	0.000291	0.5	6	1	79.5	4.39E-05	25	15	5	5.69E+05	3.41E+05	1.14E+05
Max	Ground	ATV/UTV	Spot	A/M/L	4	0.004191	0.5	9	1	79.5	9.49E-04	25	15	5	2.63E+04	1.58E+04	5.27E+03
Max	Ground	ATV/UTV	B/B	A	4	0.00034	1.6	9	1	79.5	2.46E-04	25	15	5	1.01E+05	6.09E+04	2.03E+04
Max	Ground	ATV/UTV	B/B	M/L	4	0.000291	1.6	5	1	79.5	1.17E-04	25	15	5	2.13E+05	1.28E+05	4.27E+04
Max	Ground	ATV/UTV	B/B	A/M/L	4	0.000631	1.6	9	1	79.5	4.57E-04	25	15	5	5.47E+04	3.28E+04	1.09E+04
Max	Ground	Truck Mount	Spot	A	4	0.0039	1	10	1	79.5	1.96E-03	25	15	5	1.27E+04	7.64E+03	2.55E+03
Max	Ground	Truck Mount	Spot	M/L	4	0.000291	1	8	1	79.5	1.17E-04	25	15	5	2.13E+05	1.28E+05	4.27E+04
Max	Ground	Truck Mount	Spot	A/M/L	4	0.004191	1	10	1	79.5	2.11E-03	25	15	5	1.19E+04	7.11E+03	2.37E+03
Max	Ground	Truck Mount	B/B	A	4	0.00034	2.25	8	1	79.5	3.08E-04	25	15	5	8.12E+04	4.87E+04	1.62E+04
Max	Ground	Truck Mount	B/B	M/L	4	0.000291	2.25	6	1	79.5	1.98E-04	25	15	5	1.26E+05	7.59E+04	2.53E+04
Max	Ground	Truck Mount	B/B	A/M/L	4	0.000631	2.25	8	1	79.5	5.71E-04	25	15	5	4.37E+04	2.62E+04	8.75E+03
Max	Aquatic	Boat	Spot	A	4	0.0039	2	6	1	79.5	2.35E-03	25	15	5	1.06E+04	6.37E+03	2.12E+03
Max	Aquatic	Boat	Spot	M/L	4	0.000291	2	2	1	79.5	5.86E-05	25	15	5	4.27E+05	2.56E+05	8.54E+04
Max	Aquatic	Boat	Spot	A/M/L	4	0.004191	2	6	1	79.5	2.53E-03	25	15	5	9.88E+03	5.93E+03	1.98E+03
Max	Aquatic	Boat	B/B	A	4	0.00034	3	6	1	79.5	3.08E-04	25	15	5	8.12E+04	4.87E+04	1.62E+04
Max	Aquatic	Boat	B/B	M/L	4	0.000291	3	2	1	79.5	8.78E-05	25	15	5	2.85E+05	1.71E+05	5.69E+04
Max	Aquatic	Boat	B/B	A/M/L	4	0.000631	3	6	1	79.5	5.71E-04	25	15	5	4.37E+04	2.62E+04	8.75E+03

Calculation: Aggregate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: 2,4-D (Aquatic, Floating and Emerged; Liquid Formulation)
Program: Aquatic Sites

					Margin of Exposure (MOE) Dermal Exposure (unitless)			Margin of Exposure (MOE) Inhalation Exposure (unitless)			Target MOE (TM)		Aggregate Index (ARI) [1/(TMderm/MOEderm) + (TMinh/MOEinh)]		
Scenario	Application Type	Application Vehicle	Application Method	Receptor	Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Aerial	Plane	FW	P	1.99E+03	1.19E+03	3.98E+02	1.46E+04	8.77E+03	2.92E+03	100	100	1.75E+01	1.05E+01	3.50E+00
Typical	Aerial	Plane	FW	M/L	2.64E+02	1.59E+02	**5.29E+01**	3.41E+03	2.05E+03	6.83E+02	100	100	2.45E+00	1.47E+00	**4.91E-01**
Typical	Aerial	Helicopter	Rotary	P	4.97E+03	2.98E+03	9.94E+02	3.65E+04	2.19E+04	7.31E+03	100	100	4.37E+01	2.62E+01	8.75E+00
Typical	Aerial	Helicopter	Rotary	M/L	6.61E+02	3.96E+02	1.32E+02	8.54E+03	5.12E+03	1.71E+03	100	100	6.13E+00	3.68E+00	1.23E+00
Typical	Ground	Human	Bpack	A/M/L	2.01E+03	1.20E+03	4.01E+02	6.42E+05	3.85E+05	1.28E+05	100	100	2.00E+01	1.20E+01	4.00E+00
Typical	Ground	Human	Hback	A/M/L	2.67E+02	1.60E+02	**5.35E+01**	8.56E+04	5.14E+04	1.71E+04	100	100	2.67E+00	1.60E+00	**5.33E-01**
Typical	Ground	ATV/UTV	Spot	A	6.12E+03	3.67E+03	1.22E+03	2.04E+05	1.22E+05	4.08E+04	100	100	5.94E+01	3.56E+01	1.19E+01
Typical	Ground	ATV/UTV	Spot	M/L	3.52E+05	2.11E+05	7.05E+04	4.55E+06	2.73E+06	9.11E+05	100	100	3.27E+03	1.96E+03	6.54E+02
Typical	Ground	ATV/UTV	Spot	A/M/L	5.94E+03	3.57E+03	1.19E+03	1.90E+05	1.14E+05	3.79E+04	100	100	5.76E+01	3.46E+01	1.15E+01
Typical	Ground	ATV/UTV	B/B	A	1.54E+05	9.26E+04	3.09E+04	7.31E+05	4.38E+05	1.46E+05	100	100	1.27E+03	7.64E+02	2.55E+02
Typical	Ground	ATV/UTV	B/B	M/L	1.10E+05	6.61E+04	2.20E+04	1.42E+06	8.54E+05	2.85E+05	100	100	1.02E+03	6.13E+02	2.04E+02
Typical	Ground	ATV/UTV	B/B	A/M/L	4.63E+04	2.78E+04	9.25E+03	3.94E+05	2.36E+05	7.87E+04	100	100	4.14E+02	2.48E+02	8.28E+01
Typical	Ground	Truck Mount	Spot	A	3.35E+03	2.01E+03	6.71E+02	1.12E+05	6.71E+04	2.24E+04	100	100	3.26E+01	1.95E+01	6.51E+00
Typical	Ground	Truck Mount	Spot	M/L	1.74E+05	1.04E+05	3.48E+04	2.25E+06	1.35E+06	4.49E+05	100	100	1.61E+03	9.68E+02	3.23E+02
Typical	Ground	Truck Mount	Spot	A/M/L	3.26E+03	1.96E+03	6.52E+02	1.04E+05	6.24E+04	2.08E+04	100	100	3.16E+01	1.90E+01	6.32E+00
Typical	Ground	Truck Mount	B/B	A	8.23E+04	4.94E+04	1.65E+04	3.90E+05	2.34E+05	7.79E+04	100	100	6.79E+02	4.08E+02	1.36E+02
Typical	Ground	Truck Mount	B/B	M/L	5.87E+04	3.52E+04	1.17E+04	7.59E+05	4.55E+05	1.52E+05	100	100	5.45E+02	3.27E+02	1.09E+02
Typical	Ground	Truck Mount	B/B	A/M/L	2.47E+04	1.48E+04	4.93E+03	2.10E+05	1.26E+05	4.20E+04	100	100	2.21E+02	1.32E+02	4.42E+01
Typical	Aquatic	Boat	Spot	A	3.03E+03	1.82E+03	6.07E+02	1.01E+05	6.07E+04	2.02E+04	100	100	2.95E+01	1.77E+01	5.89E+00
Typical	Aquatic	Boat	Spot	M/L	4.20E+05	2.52E+05	8.39E+04	5.42E+06	3.25E+06	1.08E+06	100	100	3.89E+03	2.34E+03	7.79E+02
Typical	Aquatic	Boat	Spot	A/M/L	2.95E+03	1.77E+03	5.90E+02	9.41E+04	5.65E+04	1.88E+04	100	100	2.86E+01	1.72E+01	5.72E+00
Typical	Aquatic	Boat	B/B	A	1.19E+05	7.12E+04	2.37E+04	5.62E+05	3.37E+05	1.12E+05	100	100	9.80E+02	5.88E+02	1.96E+02
Typical	Aquatic	Boat	B/B	M/L	2.03E+05	1.22E+05	4.07E+04	2.63E+06	1.58E+06	5.25E+05	100	100	1.89E+03	1.13E+03	3.77E+02
Typical	Aquatic	Boat	B/B	A/M/L	3.56E+04	2.14E+04	7.12E+03	3.03E+05	1.82E+05	6.06E+04	100	100	3.18E+02	1.91E+02	6.37E+01
Max	Aerial	Plane	FW	P	3.31E+02	1.99E+02	**6.63E+01**	2.44E+03	1.46E+03	4.87E+02	100	100	2.92E+00	1.75E+00	**5.83E-01**
Max	Aerial	Plane	FW	M/L	**4.40E+01**	**2.64E+01**	**8.81E+00**	5.69E+02	3.41E+02	1.14E+02	100	100	**4.09E-01**	**2.45E-01**	**8.18E-02**
Max	Aerial	Helicopter	Rotary	P	8.28E+02	4.97E+02	1.66E+02	6.09E+03	3.65E+03	1.22E+03	100	100	7.29E+00	4.37E+00	1.46E+00
Max	Aerial	Helicopter	Rotary	M/L	1.10E+02	**6.61E+01**	**2.20E+01**	1.42E+03	8.54E+02	2.85E+02	100	100	1.02E+00	**6.13E-01**	**2.04E-01**
Max	Ground	Human	Bpack	A/M/L	2.51E+02	1.50E+02	**5.01E+01**	8.02E+04	4.81E+04	1.60E+04	100	100	2.50E+00	1.50E+00	**5.00E-01**
Max	Ground	Human	Hback	A/M/L	**7.52E+01**	**4.51E+01**	**1.50E+01**	2.41E+04	1.44E+04	4.81E+03	100	100	**7.50E-01**	**4.50E-01**	**1.50E-01**
Max	Ground	ATV/UTV	Spot	A	8.49E+02	5.10E+02	1.70E+02	2.83E+04	1.70E+04	5.66E+03	100	100	8.25E+00	4.95E+00	1.65E+00
Max	Ground	ATV/UTV	Spot	M/L	4.40E+04	2.64E+04	8.81E+03	5.69E+05	3.41E+05	1.14E+05	100	100	4.09E+02	2.45E+02	8.18E+01
Max	Ground	ATV/UTV	Spot	A/M/L	8.25E+02	4.95E+02	1.65E+02	2.63E+04	1.58E+04	5.27E+03	100	100	8.00E+00	4.80E+00	1.60E+00
Max	Ground	ATV/UTV	B/B	A	2.14E+04	1.29E+04	4.29E+03	1.01E+05	6.09E+04	2.03E+04	100	100	1.77E+02	1.06E+02	3.54E+01
Max	Ground	ATV/UTV	B/B	M/L	1.65E+04	9.91E+03	3.30E+03	2.13E+05	1.28E+05	4.27E+04	100	100	1.53E+02	9.20E+01	3.07E+01
Max	Ground	ATV/UTV	B/B	A/M/L	6.43E+03	3.86E+03	1.29E+03	5.47E+04	3.28E+04	1.09E+04	100	100	5.75E+01	3.45E+01	1.15E+01
Max	Ground	Truck Mount	Spot	A	3.82E+02	2.29E+02	**7.64E+01**	1.27E+04	7.64E+03	2.55E+03	100	100	3.71E+00	2.23E+00	**7.42E-01**
Max	Ground	Truck Mount	Spot	M/L	1.65E+04	9.91E+03	3.30E+03	2.13E+05	1.28E+05	4.27E+04	100	100	1.53E+02	9.20E+01	3.07E+01
Max	Ground	Truck Mount	Spot	A/M/L	3.71E+02	2.23E+02	**7.43E+01**	1.19E+04	7.11E+03	2.37E+03	100	100	3.60E+00	2.16E+00	**7.20E-01**
Max	Ground	Truck Mount	B/B	A	1.71E+04	1.03E+04	3.43E+03	8.12E+04	4.87E+04	1.62E+04	100	100	1.42E+02	8.49E+01	2.83E+01
Max	Ground	Truck Mount	B/B	M/L	9.79E+03	5.87E+03	1.96E+03	1.26E+05	7.59E+04	2.53E+04	100	100	9.09E+01	5.45E+01	1.82E+01
Max	Ground	Truck Mount	B/B	A/M/L	5.14E+03	3.08E+03	1.03E+03	4.37E+04	2.62E+04	8.75E+03	100	100	4.60E+01	2.76E+01	9.20E+00
Max	Aquatic	Boat	Spot	A	3.19E+02	1.91E+02	**6.37E+01**	1.06E+04	6.37E+03	2.12E+03	100	100	3.09E+00	1.86E+00	**6.18E-01**
Max	Aquatic	Boat	Spot	M/L	3.30E+04	1.98E+04	6.61E+03	4.27E+05	2.56E+05	8.54E+04	100	100	3.07E+02	1.84E+02	6.13E+01
Max	Aquatic	Boat	Spot	A/M/L	3.10E+02	1.86E+02	**6.19E+01**	9.88E+03	5.93E+03	1.98E+03	100	100	3.00E+00	1.80E+00	**6.00E-01**
Max	Aquatic	Boat	B/B	A	1.71E+04	1.03E+04	3.43E+03	8.12E+04	4.87E+04	1.62E+04	100	100	1.42E+02	8.49E+01	2.83E+01
Max	Aquatic	Boat	B/B	M/L	2.20E+04	1.32E+04	4.40E+03	2.85E+05	1.71E+05	5.69E+04	100	100	2.04E+02	1.23E+02	4.09E+01
Max	Aquatic	Boat	B/B	A/M/L	5.14E+03	3.08E+03	1.03E+03	4.37E+04	2.62E+04	8.75E+03	100	100	4.60E+01	2.76E+01	9.20E+00

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational Receptors (all) - Accidental Exposure (Spill)
Pathway: Dermal Contact with Herbicide
Herbicide: 2,4-D (Aquatic, Floating and Emerged; Liquid Formulation)
Program: Aquatic Sites

Scenario	Amount Spilled (S) (a) (L/day)	Concentration in Spill (Cs) (mg a.e./L)		Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Surface Area Ratio (SAR) (d)	Dermal Dose [(S x Cs x SAR x DAF)/BW] (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	Margin of Exposure (MOE) (unitless)	Target MOE (TM) (unitless)	Aggregate Risk Index (ARI) [1/(TM/MOE)] (unitless)
Concentrated Liquid	0.5	456,000	(b)	0.1	79.5	44%	126.19	25	0.198	100	**1.98E-03**
Mixed Liquid (Max Application Rate)	0.5	96,000	(c)	0.1	79.5	44%	26.57	25	0.941	100	**9.41E-03**
Mixed Liquid (Typical Application Rate)	0.5	48,000	(c)	0.1	79.5	44%	13.28	25	1.882	100	**1.88E-02**

(a) - It is assumed that the amount spilled is 0.5 liters.
(b) - See Table 4-6.
(c) - See Table 4-7.
(d) - It is assumed that 80% of the spill lands on clothing with a 30% penetration rate through the clothing, and that 20% lands on bare skin. Therefore, the percentage of exposed skin equals 44%: (80% spilled to clothing * 30% penetration rate) + 20% spilled to bare skin.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with Herbicide
Herbicide: 2,4-D (Aquatic, Submerged, Treatment of Volume of Water; Liquid Formulation)
Program: Aquatic Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre) (a)	Dermal Unit Exposure (UEderm) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Dermal Dose [(AR x AT x H x UE x DAF)/BW] (mg a.e./kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	5.4	0.005	250	4	0.1	79.5	3.40E-02	25	15	5	7.36E+02	4.42E+02	1.47E+02
Typical	Aerial	Plane	FW	M/L	5.4	0.0376	250	4	0.1	79.5	2.55E-01	25	15	5	**9.79E+01**	**5.87E+01**	**1.96E+01**
Typical	Aerial	Helicopter	Rotary	P	5.4	0.005	100	4	0.1	79.5	1.36E-02	25	15	5	1.84E+03	1.10E+03	3.68E+02
Typical	Aerial	Helicopter	Rotary	M/L	5.4	0.0376	100	4	0.1	79.5	1.02E-01	25	15	5	2.45E+02	1.47E+02	**4.89E+01**
Typical	Ground	Human	Bpack	A/M/L	5.4	8.26	0.2	3	0.1	79.5	3.37E-02	25	15	5	7.43E+02	4.46E+02	1.49E+02
Typical	Ground	Human	Hback	A/M/L	5.4	8.26	0.75	6	0.1	79.5	2.52E-01	25	15	5	**9.90E+01**	**5.94E+01**	**1.98E+01**
Typical	Ground	ATV/UTV	Spot	A	5.4	1.3	0.25	5	0.1	79.5	1.10E-02	25	15	5	2.26E+03	1.36E+03	4.53E+02
Typical	Ground	ATV/UTV	Spot	M/L	5.4	0.0376	0.25	3	0.1	79.5	1.92E-04	25	15	5	1.31E+05	7.83E+04	2.61E+04
Typical	Ground	ATV/UTV	Spot	A/M/L	5.4	1.3376	0.25	5	0.1	79.5	1.14E-02	25	15	5	2.20E+03	1.32E+03	4.40E+02
Typical	Ground	ATV/UTV	B/B	A	5.4	0.0161	0.8	5	0.1	79.5	4.37E-04	25	15	5	5.72E+04	3.43E+04	1.14E+04
Typical	Ground	ATV/UTV	B/B	M/L	5.4	0.0376	0.8	3	0.1	79.5	6.13E-04	25	15	5	4.08E+04	2.45E+04	8.16E+03
Typical	Ground	ATV/UTV	B/B	A/M/L	5.4	0.0537	0.8	5	0.1	79.5	1.46E-03	25	15	5	1.71E+04	1.03E+04	3.43E+03
Typical	Ground	Truck Mount	Spot	A	5.4	1.3	0.38	6	0.1	79.5	2.01E-02	25	15	5	1.24E+03	7.45E+02	2.48E+02
Typical	Ground	Truck Mount	Spot	M/L	5.4	0.0376	0.38	4	0.1	79.5	3.88E-04	25	15	5	6.44E+04	3.86E+04	1.29E+04
Typical	Ground	Truck Mount	Spot	A/M/L	5.4	1.3376	0.38	6	0.1	79.5	2.07E-02	25	15	5	1.21E+03	7.24E+02	2.41E+02
Typical	Ground	Truck Mount	B/B	A	5.4	0.0161	1.5	5	0.1	79.5	8.20E-04	25	15	5	3.05E+04	1.83E+04	6.10E+03
Typical	Ground	Truck Mount	B/B	M/L	5.4	0.0376	1.5	3	0.1	79.5	1.15E-03	25	15	5	2.18E+04	1.31E+04	4.35E+03
Typical	Ground	Truck Mount	B/B	A/M/L	5.4	0.0537	1.5	5	0.1	79.5	2.74E-03	25	15	5	9.14E+03	5.48E+03	1.83E+03
Typical	Aquatic	Boat	Spot	A	5.4	1.3	0.63	4	0.1	79.5	2.23E-02	25	15	5	1.12E+03	6.74E+02	2.25E+02
Typical	Aquatic	Boat	Spot	M/L	5.4	0.0376	0.63	1	0.1	79.5	1.61E-04	25	15	5	1.55E+05	9.32E+04	3.11E+04
Typical	Aquatic	Boat	Spot	A/M/L	5.4	1.3376	0.63	4	0.1	79.5	2.29E-02	25	15	5	1.09E+03	6.55E+02	2.18E+02
Typical	Aquatic	Boat	B/B	A	5.4	0.0161	1.3	4	0.1	79.5	5.69E-04	25	15	5	4.40E+04	2.64E+04	8.79E+03
Typical	Aquatic	Boat	B/B	M/L	5.4	0.0376	1.3	1	0.1	79.5	3.32E-04	25	15	5	7.53E+04	4.52E+04	1.51E+04
Typical	Aquatic	Boat	B/B	A/M/L	5.4	0.0537	1.3	4	0.1	79.5	1.90E-03	25	15	5	1.32E+04	7.91E+03	2.64E+03
Max	Aerial	Plane	FW	P	10.8	0.005	500	6	0.1	79.5	2.04E-01	25	15	5	1.23E+02	**7.36E+01**	**2.45E+01**
Max	Aerial	Plane	FW	M/L	10.8	0.0376	500	6	0.1	79.5	1.53E+00	25	15	5	**1.63E+01**	**9.79E+00**	**3.26E+00**
Max	Aerial	Helicopter	Rotary	P	10.8	0.005	200	6	0.1	79.5	8.15E-02	25	15	5	3.07E+02	1.84E+02	**6.13E+01**
Max	Aerial	Helicopter	Rotary	M/L	10.8	0.0376	200	6	0.1	79.5	6.13E-01	25	15	5	**4.08E+01**	**2.45E+01**	**8.16E+00**
Max	Ground	Human	Bpack	A/M/L	10.8	8.26	0.4	6	0.1	79.5	2.69E-01	25	15	5	**9.28E+01**	**5.57E+01**	**1.86E+01**
Max	Ground	Human	Hback	A/M/L	10.8	8.26	1	8	0.1	79.5	8.98E-01	25	15	5	**2.78E+01**	**1.67E+01**	**5.57E+00**
Max	Ground	ATV/UTV	Spot	A	10.8	1.3	0.5	9	0.1	79.5	7.95E-02	25	15	5	3.15E+02	1.89E+02	**6.29E+01**
Max	Ground	ATV/UTV	Spot	M/L	10.8	0.0376	0.5	6	0.1	79.5	1.53E-03	25	15	5	1.63E+04	9.79E+03	3.26E+03
Max	Ground	ATV/UTV	Spot	A/M/L	10.8	1.3376	0.5	9	0.1	79.5	8.18E-02	25	15	5	3.06E+02	1.83E+02	**6.11E+01**
Max	Ground	ATV/UTV	B/B	A	10.8	0.0161	1.6	9	0.1	79.5	3.15E-03	25	15	5	7.94E+03	4.76E+03	1.59E+03
Max	Ground	ATV/UTV	B/B	M/L	10.8	0.0376	1.6	5	0.1	79.5	4.09E-03	25	15	5	6.12E+03	3.67E+03	1.22E+03
Max	Ground	ATV/UTV	B/B	A/M/L	10.8	0.0537	1.6	9	0.1	79.5	1.05E-02	25	15	5	2.38E+03	1.43E+03	4.76E+02
Max	Ground	Truck Mount	Spot	A	10.8	1.3	1	10	0.1	79.5	1.77E-01	25	15	5	1.42E+02	**8.49E+01**	**2.83E+01**
Max	Ground	Truck Mount	Spot	M/L	10.8	0.0376	1	8	0.1	79.5	4.09E-03	25	15	5	6.12E+03	3.67E+03	1.22E+03
Max	Ground	Truck Mount	Spot	A/M/L	10.8	1.3376	1	10	0.1	79.5	1.82E-01	25	15	5	1.38E+02	**8.25E+01**	**2.75E+01**
Max	Ground	Truck Mount	B/B	A	10.8	0.0161	2.25	8	0.1	79.5	3.94E-03	25	15	5	6.35E+03	3.81E+03	1.27E+03
Max	Ground	Truck Mount	B/B	M/L	10.8	0.0376	2.25	6	0.1	79.5	6.90E-03	25	15	5	3.63E+03	2.18E+03	7.25E+02
Max	Ground	Truck Mount	B/B	A/M/L	10.8	0.0537	2.25	8	0.1	79.5	1.31E-02	25	15	5	1.90E+03	1.14E+03	3.81E+02
Max	Aquatic	Boat	Spot	A	10.8	1.3	2	6	0.1	79.5	2.12E-01	25	15	5	1.18E+02	**7.08E+01**	**2.36E+01**
Max	Aquatic	Boat	Spot	M/L	10.8	0.0376	2	2	0.1	79.5	2.04E-03	25	15	5	1.22E+04	7.34E+03	2.45E+03
Max	Aquatic	Boat	Spot	A/M/L	10.8	1.3376	2	6	0.1	79.5	2.18E-01	25	15	5	1.15E+02	**6.88E+01**	**2.29E+01**
Max	Aquatic	Boat	B/B	A	10.8	0.0161	3	6	0.1	79.5	3.94E-03	25	15	5	6.35E+03	3.81E+03	1.27E+03
Max	Aquatic	Boat	B/B	M/L	10.8	0.0376	3	2	0.1	79.5	3.06E-03	25	15	5	8.16E+03	4.89E+03	1.63E+03
Max	Aquatic	Boat	B/B	A/M/L	10.8	0.0537	3	6	0.1	79.5	1.31E-02	25	15	5	1.90E+03	1.14E+03	3.81E+02

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Inhalation of Herbicide
Herbicide: 2,4-D (Aquatic, Submerged, Treatment of Volume of Water; Liquid Formulation)
Program: Aquatic Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Inhalation Unit Exposure (UEinh) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Inhalation Absorption Factor (IAF)	Body Weight (BW) (kg)	Inhalation Dose [(AR x AT x H x UE x IAF)/BW)] (mg a.e./kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	5.4	0.000068	250	4	1	79.5	4.62E-03	25	15	5	5.41E+03	3.25E+03	1.08E+03
Typical	Aerial	Plane	FW	M/L	5.4	0.000291	250	4	1	79.5	1.98E-02	25	15	5	1.26E+03	7.59E+02	2.53E+02
Typical	Aerial	Helicopter	Rotary	P	5.4	0.000068	100	4	1	79.5	1.85E-03	25	15	5	1.35E+04	8.12E+03	2.71E+03
Typical	Aerial	Helicopter	Rotary	M/L	5.4	0.000291	100	4	1	79.5	7.91E-03	25	15	5	3.16E+03	1.90E+03	6.32E+02
Typical	Ground	Human	Bpack	A/M/L	5.4	0.00258	0.2	3	1	79.5	1.05E-04	25	15	5	2.38E+05	1.43E+05	4.76E+04
Typical	Ground	Human	Hback	A/M/L	5.4	0.00258	0.75	6	1	79.5	7.89E-04	25	15	5	3.17E+04	1.90E+04	6.34E+03
Typical	Ground	ATV/UTV	Spot	A	5.4	0.0039	0.25	5	1	79.5	3.31E-04	25	15	5	7.55E+04	4.53E+04	1.51E+04
Typical	Ground	ATV/UTV	Spot	M/L	5.4	0.000291	0.25	3	1	79.5	1.48E-05	25	15	5	1.69E+06	1.01E+06	3.37E+05
Typical	Ground	ATV/UTV	Spot	A/M/L	5.4	0.004191	0.25	5	1	79.5	3.56E-04	25	15	5	7.03E+04	4.22E+04	1.41E+04
Typical	Ground	ATV/UTV	B/B	A	5.4	0.00034	0.8	5	1	79.5	9.24E-05	25	15	5	2.71E+05	1.62E+05	5.41E+04
Typical	Ground	ATV/UTV	B/B	M/L	5.4	0.000291	0.8	3	1	79.5	4.74E-05	25	15	5	5.27E+05	3.16E+05	1.05E+05
Typical	Ground	ATV/UTV	B/B	A/M/L	5.4	0.000631	0.8	5	1	79.5	1.71E-04	25	15	5	1.46E+05	8.75E+04	2.92E+04
Typical	Ground	Truck Mount	Spot	A	5.4	0.0039	0.38	6	1	79.5	6.04E-04	25	15	5	4.14E+04	2.48E+04	8.28E+03
Typical	Ground	Truck Mount	Spot	M/L	5.4	0.000291	0.38	4	1	79.5	3.00E-05	25	15	5	8.32E+05	4.99E+05	1.66E+05
Typical	Ground	Truck Mount	Spot	A/M/L	5.4	0.004191	0.38	6	1	79.5	6.49E-04	25	15	5	3.85E+04	2.31E+04	7.70E+03
Typical	Ground	Truck Mount	B/B	A	5.4	0.00034	1.5	5	1	79.5	1.73E-04	25	15	5	1.44E+05	8.66E+04	2.89E+04
Typical	Ground	Truck Mount	B/B	M/L	5.4	0.000291	1.5	3	1	79.5	8.89E-05	25	15	5	2.81E+05	1.69E+05	5.62E+04
Typical	Ground	Truck Mount	B/B	A/M/L	5.4	0.000631	1.5	5	1	79.5	3.21E-04	25	15	5	7.78E+04	4.67E+04	1.56E+04
Typical	Aquatic	Boat	Spot	A	5.4	0.0039	0.63	4	1	79.5	6.68E-04	25	15	5	3.74E+04	2.25E+04	7.49E+03
Typical	Aquatic	Boat	Spot	M/L	5.4	0.000291	0.63	1	1	79.5	1.25E-05	25	15	5	2.01E+06	1.20E+06	4.02E+05
Typical	Aquatic	Boat	Spot	A/M/L	5.4	0.004191	0.63	4	1	79.5	7.17E-04	25	15	5	3.48E+04	2.09E+04	6.97E+03
Typical	Aquatic	Boat	B/B	A	5.4	0.00034	1.3	4	1	79.5	1.20E-04	25	15	5	2.08E+05	1.25E+05	4.16E+04
Typical	Aquatic	Boat	B/B	M/L	5.4	0.000291	1.3	1	1	79.5	2.57E-05	25	15	5	9.73E+05	5.84E+05	1.95E+05
Typical	Aquatic	Boat	B/B	A/M/L	5.4	0.000631	1.3	4	1	79.5	2.23E-04	25	15	5	1.12E+05	6.73E+04	2.24E+04
Max	Aerial	Plane	FW	P	10.8	0.000068	500	6	1	79.5	2.77E-02	25	15	5	9.02E+02	5.41E+02	1.80E+02
Max	Aerial	Plane	FW	M/L	10.8	0.000291	500	6	1	79.5	1.19E-01	25	15	5	2.11E+02	1.26E+02	**4.22E+01**
Max	Aerial	Helicopter	Rotary	P	10.8	0.000068	200	6	1	79.5	1.11E-02	25	15	5	2.26E+03	1.35E+03	4.51E+02
Max	Aerial	Helicopter	Rotary	M/L	10.8	0.000291	200	6	1	79.5	4.74E-02	25	15	5	5.27E+02	3.16E+02	1.05E+02
Max	Ground	Human	Bpack	A/M/L	10.8	0.00258	0.4	6	1	79.5	8.41E-04	25	15	5	2.97E+04	1.78E+04	5.94E+03
Max	Ground	Human	Hback	A/M/L	10.8	0.00258	1	8	1	79.5	2.80E-03	25	15	5	8.92E+03	5.35E+03	1.78E+03
Max	Ground	ATV/UTV	Spot	A	10.8	0.0039	0.5	9	1	79.5	2.38E-03	25	15	5	1.05E+04	6.29E+03	2.10E+03
Max	Ground	ATV/UTV	Spot	M/L	10.8	0.000291	0.5	6	1	79.5	1.19E-04	25	15	5	2.11E+05	1.26E+05	4.22E+04
Max	Ground	ATV/UTV	Spot	A/M/L	10.8	0.004191	0.5	9	1	79.5	2.56E-03	25	15	5	9.76E+03	5.85E+03	1.95E+03
Max	Ground	ATV/UTV	B/B	A	10.8	0.00034	1.6	9	1	79.5	6.65E-04	25	15	5	3.76E+04	2.26E+04	7.52E+03
Max	Ground	ATV/UTV	B/B	M/L	10.8	0.000291	1.6	5	1	79.5	3.16E-04	25	15	5	7.90E+04	4.74E+04	1.58E+04
Max	Ground	ATV/UTV	B/B	A/M/L	10.8	0.000631	1.6	9	1	79.5	1.23E-03	25	15	5	2.03E+04	1.22E+04	4.05E+03
Max	Ground	Truck Mount	Spot	A	10.8	0.0039	1	10	1	79.5	5.30E-03	25	15	5	4.72E+03	2.83E+03	9.44E+02
Max	Ground	Truck Mount	Spot	M/L	10.8	0.000291	1	8	1	79.5	3.16E-04	25	15	5	7.90E+04	4.74E+04	1.58E+04
Max	Ground	Truck Mount	Spot	A/M/L	10.8	0.004191	1	10	1	79.5	5.69E-03	25	15	5	4.39E+03	2.63E+03	8.78E+02
Max	Ground	Truck Mount	B/B	A	10.8	0.00034	2.25	8	1	79.5	8.31E-04	25	15	5	3.01E+04	1.80E+04	6.01E+03
Max	Ground	Truck Mount	B/B	M/L	10.8	0.000291	2.25	6	1	79.5	5.34E-04	25	15	5	4.68E+04	2.81E+04	9.37E+03
Max	Ground	Truck Mount	B/B	A/M/L	10.8	0.000631	2.25	8	1	79.5	1.54E-03	25	15	5	1.62E+04	9.72E+03	3.24E+03
Max	Aquatic	Boat	Spot	A	10.8	0.0039	2	6	1	79.5	6.36E-03	25	15	5	3.93E+03	2.36E+03	7.86E+02
Max	Aquatic	Boat	Spot	M/L	10.8	0.000291	2	2	1	79.5	1.58E-04	25	15	5	1.58E+05	9.49E+04	3.16E+04
Max	Aquatic	Boat	Spot	A/M/L	10.8	0.004191	2	6	1	79.5	6.83E-03	25	15	5	3.66E+03	2.20E+03	7.32E+02
Max	Aquatic	Boat	B/B	A	10.8	0.00034	3	6	1	79.5	8.31E-04	25	15	5	3.01E+04	1.80E+04	6.01E+03
Max	Aquatic	Boat	B/B	M/L	10.8	0.000291	3	2	1	79.5	2.37E-04	25	15	5	1.05E+05	6.32E+04	2.11E+04
Max	Aquatic	Boat	B/B	A/M/L	10.8	0.000631	3	6	1	79.5	1.54E-03	25	15	5	1.62E+04	9.72E+03	3.24E+03

Calculation: Aggregate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: 2,4-D (Aquatic, Submerged, Treatment of Volume of Water; Liquid Formulation)
Program: Aquatic Sites

					Margin of Exposure (MOE) Dermal Exposure (unitless)			Margin of Exposure (MOE) Inhalation Exposure (unitless)			Target MOE (TM)		Aggregate Index (ARI) [1/(TMderm/MOEderm) + (TMinh/MOEinh)]		
Scenario	Application Type	Application Vehicle	Application Method	Receptor	Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Aerial	Plane	FW	P	7.36E+02	4.42E+02	1.47E+02	5.41E+03	3.25E+03	1.08E+03	100	100	6.48E+00	3.89E+00	1.30E+00
Typical	Aerial	Plane	FW	M/L	**9.79E+01**	**5.87E+01**	**1.96E+01**	1.26E+03	7.59E+02	2.53E+02	100	100	**9.09E-01**	**5.45E-01**	**1.82E-01**
Typical	Aerial	Helicopter	Rotary	P	1.84E+03	1.10E+03	3.68E+02	1.35E+04	8.12E+03	2.71E+03	100	100	1.62E+01	9.72E+00	3.24E+00
Typical	Aerial	Helicopter	Rotary	M/L	2.45E+02	1.47E+02	**4.89E+01**	3.16E+03	1.90E+03	6.32E+02	100	100	2.27E+00	1.36E+00	**4.54E-01**
Typical	Ground	Human	Bpack	A/M/L	7.43E+02	4.46E+02	1.49E+02	2.38E+05	1.43E+05	4.76E+04	100	100	7.40E+00	4.44E+00	1.48E+00
Typical	Ground	Human	Hback	A/M/L	**9.90E+01**	**5.94E+01**	**1.98E+01**	3.17E+04	1.90E+04	6.34E+03	100	100	**9.87E-01**	**5.92E-01**	**1.97E-01**
Typical	Ground	ATV/UTV	Spot	A	2.26E+03	1.36E+03	4.53E+02	7.55E+04	4.53E+04	1.51E+04	100	100	2.20E+01	1.32E+01	4.40E+00
Typical	Ground	ATV/UTV	Spot	M/L	1.31E+05	7.83E+04	2.61E+04	1.69E+06	1.01E+06	3.37E+05	100	100	1.21E+03	7.27E+02	2.42E+02
Typical	Ground	ATV/UTV	Spot	A/M/L	2.20E+03	1.32E+03	4.40E+02	7.03E+04	4.22E+04	1.41E+04	100	100	2.13E+01	1.28E+01	4.27E+00
Typical	Ground	ATV/UTV	B/B	A	5.72E+04	3.43E+04	1.14E+04	2.71E+05	1.62E+05	5.41E+04	100	100	4.72E+02	2.83E+02	9.44E+01
Typical	Ground	ATV/UTV	B/B	M/L	4.08E+04	2.45E+04	8.16E+03	5.27E+05	3.16E+05	1.05E+05	100	100	3.79E+02	2.27E+02	7.57E+01
Typical	Ground	ATV/UTV	B/B	A/M/L	1.71E+04	1.03E+04	3.43E+03	1.46E+05	8.75E+04	2.92E+04	100	100	1.53E+02	9.20E+01	3.07E+01
Typical	Ground	Truck Mount	Spot	A	1.24E+03	7.45E+02	2.48E+02	4.14E+04	2.48E+04	8.28E+03	100	100	1.21E+01	7.23E+00	2.41E+00
Typical	Ground	Truck Mount	Spot	M/L	6.44E+04	3.86E+04	1.29E+04	8.32E+05	4.99E+05	1.66E+05	100	100	5.98E+02	3.59E+02	1.20E+02
Typical	Ground	Truck Mount	Spot	A/M/L	1.21E+03	7.24E+02	2.41E+02	3.85E+04	2.31E+04	7.70E+03	100	100	1.17E+01	7.02E+00	2.34E+00
Typical	Ground	Truck Mount	B/B	A	3.05E+04	1.83E+04	6.10E+03	1.44E+05	8.66E+04	2.89E+04	100	100	2.52E+02	1.51E+02	5.03E+01
Typical	Ground	Truck Mount	B/B	M/L	2.18E+04	1.31E+04	4.35E+03	2.81E+05	1.69E+05	5.62E+04	100	100	2.02E+02	1.21E+02	4.04E+01
Typical	Ground	Truck Mount	B/B	A/M/L	9.14E+03	5.48E+03	1.83E+03	7.78E+04	4.67E+04	1.56E+04	100	100	8.18E+01	4.91E+01	1.64E+01
Typical	Aquatic	Boat	Spot	A	1.12E+03	6.74E+02	2.25E+02	3.74E+04	2.25E+04	7.49E+03	100	100	1.09E+01	6.54E+00	2.18E+00
Typical	Aquatic	Boat	Spot	M/L	1.55E+05	9.32E+04	3.11E+04	2.01E+06	1.20E+06	4.02E+05	100	100	1.44E+03	8.65E+02	2.88E+02
Typical	Aquatic	Boat	Spot	A/M/L	1.09E+03	6.55E+02	2.18E+02	3.48E+04	2.09E+04	6.97E+03	100	100	1.06E+01	6.35E+00	2.12E+00
Typical	Aquatic	Boat	B/B	A	4.40E+04	2.64E+04	8.79E+03	2.08E+05	1.25E+05	4.16E+04	100	100	3.63E+02	2.18E+02	7.26E+01
Typical	Aquatic	Boat	B/B	M/L	7.53E+04	4.52E+04	1.51E+04	9.73E+05	5.84E+05	1.95E+05	100	100	6.99E+02	4.19E+02	1.40E+02
Typical	Aquatic	Boat	B/B	A/M/L	1.32E+04	7.91E+03	2.64E+03	1.12E+05	6.73E+04	2.24E+04	100	100	1.18E+02	7.08E+01	2.36E+01
Max	Aerial	Plane	FW	P	1.23E+02	**7.36E+01**	**2.45E+01**	9.02E+02	5.41E+02	1.80E+02	100	100	1.08E+00	**6.48E-01**	**2.16E-01**
Max	Aerial	Plane	FW	M/L	**1.63E+01**	**9.79E+00**	**3.26E+00**	2.11E+02	1.26E+02	**4.22E+01**	100	100	**1.51E-01**	**9.09E-02**	**3.03E-02**
Max	Aerial	Helicopter	Rotary	P	3.07E+02	1.84E+02	**6.13E+01**	2.26E+03	1.35E+03	4.51E+02	100	100	2.70E+00	1.62E+00	**5.40E-01**
Max	Aerial	Helicopter	Rotary	M/L	**4.08E+01**	**2.45E+01**	**8.16E+00**	5.27E+02	3.16E+02	1.05E+02	100	100	**3.79E-01**	**2.27E-01**	**7.57E-02**
Max	Ground	Human	Bpack	A/M/L	**9.28E+01**	**5.57E+01**	**1.86E+01**	2.97E+04	1.78E+04	5.94E+03	100	100	**9.25E-01**	**5.55E-01**	**1.85E-01**
Max	Ground	Human	Hback	A/M/L	**2.78E+01**	**1.67E+01**	**5.57E+00**	8.92E+03	5.35E+03	1.78E+03	100	100	**2.78E-01**	**1.67E-01**	**5.55E-02**
Max	Ground	ATV/UTV	Spot	A	3.15E+02	1.89E+02	**6.29E+01**	1.05E+04	6.29E+03	2.10E+03	100	100	3.05E+00	1.83E+00	**6.11E-01**
Max	Ground	ATV/UTV	Spot	M/L	1.63E+04	9.79E+03	3.26E+03	2.11E+05	1.26E+05	4.22E+04	100	100	1.51E+02	9.09E+01	3.03E+01
Max	Ground	ATV/UTV	Spot	A/M/L	3.06E+02	1.83E+02	**6.11E+01**	9.76E+03	5.85E+03	1.95E+03	100	100	2.96E+00	1.78E+00	**5.93E-01**
Max	Ground	ATV/UTV	B/B	A	7.94E+03	4.76E+03	1.59E+03	3.76E+04	2.26E+04	7.52E+03	100	100	6.55E+01	3.93E+01	1.31E+01
Max	Ground	ATV/UTV	B/B	M/L	6.12E+03	3.67E+03	1.22E+03	7.90E+04	4.74E+04	1.58E+04	100	100	5.68E+01	3.41E+01	1.14E+01
Max	Ground	ATV/UTV	B/B	A/M/L	2.38E+03	1.43E+03	4.76E+02	2.03E+04	1.22E+04	4.05E+03	100	100	2.13E+01	1.28E+01	4.26E+00
Max	Ground	Truck Mount	Spot	A	1.42E+02	**8.49E+01**	**2.83E+01**	4.72E+03	2.83E+03	9.44E+02	100	100	1.37E+00	**8.25E-01**	**2.75E-01**
Max	Ground	Truck Mount	Spot	M/L	6.12E+03	3.67E+03	1.22E+03	7.90E+04	4.74E+04	1.58E+04	100	100	5.68E+01	3.41E+01	1.14E+01
Max	Ground	Truck Mount	Spot	A/M/L	1.38E+02	**8.25E+01**	**2.75E+01**	4.39E+03	2.63E+03	8.78E+02	100	100	1.33E+00	**8.00E-01**	**2.67E-01**
Max	Ground	Truck Mount	B/B	A	6.35E+03	3.81E+03	1.27E+03	3.01E+04	1.80E+04	6.01E+03	100	100	5.24E+01	3.15E+01	1.05E+01
Max	Ground	Truck Mount	B/B	M/L	3.63E+03	2.18E+03	7.25E+02	4.68E+04	2.81E+04	9.37E+03	100	100	3.37E+01	2.02E+01	6.73E+00
Max	Ground	Truck Mount	B/B	A/M/L	1.90E+03	1.14E+03	3.81E+02	1.62E+04	9.72E+03	3.24E+03	100	100	1.70E+01	1.02E+01	3.41E+00
Max	Aquatic	Boat	Spot	A	1.18E+02	**7.08E+01**	**2.36E+01**	3.93E+03	2.36E+03	7.86E+02	100	100	1.15E+00	**6.87E-01**	**2.29E-01**
Max	Aquatic	Boat	Spot	M/L	1.22E+04	7.34E+03	2.45E+03	1.58E+05	9.49E+04	3.16E+04	100	100	1.14E+02	6.81E+01	2.27E+01
Max	Aquatic	Boat	Spot	A/M/L	1.15E+02	**6.88E+01**	**2.29E+01**	3.66E+03	2.20E+03	7.32E+02	100	100	1.11E+00	**6.67E-01**	**2.22E-01**
Max	Aquatic	Boat	B/B	A	6.35E+03	3.81E+03	1.27E+03	3.01E+04	1.80E+04	6.01E+03	100	100	5.24E+01	3.15E+01	1.05E+01
Max	Aquatic	Boat	B/B	M/L	8.16E+03	4.89E+03	1.63E+03	1.05E+05	6.32E+04	2.11E+04	100	100	7.57E+01	4.54E+01	1.51E+01
Max	Aquatic	Boat	B/B	A/M/L	1.90E+03	1.14E+03	3.81E+02	1.62E+04	9.72E+03	3.24E+03	100	100	1.70E+01	1.02E+01	3.41E+00

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational Receptors (all) - Accidental Exposure (Spill)
Pathway: Dermal Contact with Herbicide
Herbicide: 2,4-D (Aquatic, Submerged, Treatment of Volume of Water; Liquid Formulation)
Program: Aquatic Sites

Scenario	Amount Spilled (S) (a) (L/day)	Concentration in Spill (Cs) (mg a.e./L)		Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Surface Area Ratio (SAR) (d)	Dermal Dose [(S x Cs x SAR x DAF)/BW] (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	Margin of Exposure (MOE) (unitless)	Target MOE (TM) (unitless)	Aggregate Risk Index (ARI) [1/(TM/MOE)] (unitless)
Concentrated Liquid	0.5	456,000	(b)	0.1	79.5	44%	126.19	25	0.198	100	**1.98E-03**
Mixed Liquid (Max Application Rate)	0.5	259,200	(c)	0.1	79.5	44%	71.73	25	0.349	100	**3.49E-03**
Mixed Liquid (Typical Application Rate)	0.5	129,600	(c)	0.1	79.5	44%	35.86	25	0.697	100	**6.97E-03**

(a) - It is assumed that the amount spilled is 0.5 liters.
(b) - See Table 4-6.
(c) - See Table 4-7.
(d) - It is assumed that 80% of the spill lands on clothing with a 30% penetration rate through the clothing, and that 20% lands on bare skin. Therefore, the percentage of exposed skin equals 44%: (80% spilled to clothing * 30% penetration rate) + 20% spilled to bare skin.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with Herbicide
Herbicide: 2,4-D (Aquatic, Submerged, Treatment of pond bottom; Granular Formulation)
Program: Aquatic Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Dermal Unit Exposure (UEderm) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Dermal Dose [(AR x AT x H x UE x DAF)/BW] (mg a.e./kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aquatic	Boat	Spot	A/M/L	19	0.0069	0.75	4	0.1	79.5	4.95E-04	25	15	5	5.05E+04	3.03E+04	1.01E+04
Max	Aquatic	Boat	Spot	A/M/L	38	0.0069	0.75	6	0.1	79.5	1.48E-03	25	15	5	1.68E+04	1.01E+04	3.37E+03
Typical	Aquatic	Boat	B/B	A/M/L	19	0.0069	1	4	0.1	79.5	6.60E-04	25	15	5	3.79E+04	2.27E+04	7.58E+03
Max	Aquatic	Boat	B/B	A/M/L	38	0.0069	2	6	0.1	79.5	3.96E-03	25	15	5	6.32E+03	3.79E+03	1.26E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Inhalation of Herbicide
Herbicide: 2,4-D (Aquatic, Submerged, Treatment of pond bottom; Granular Formulation)
Program: Aquatic Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Inhalation Unit Exposure (UEinh) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Inhalation Absorption Factor (IAF)	Body Weight (BW) (kg)	Inhalation Dose [(AR x AT x H x UE x IAF)/BW)] (mg a.e./kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aquatic	Boat	Spot	A/M/L	19	0.0017	0.75	4	1	79.5	1.22E-03	25	15	5	2.05E+04	1.23E+04	4.10E+03
Max	Aquatic	Boat	Spot	A/M/L	38	0.0017	0.75	4	1	79.5	2.44E-03	25	15	5	1.03E+04	6.15E+03	2.05E+03
Typical	Aquatic	Boat	B/B	A/M/L	19	0.0017	1	4	1	79.5	1.63E-03	25	15	5	1.54E+04	9.23E+03	3.08E+03
Max	Aquatic	Boat	B/B	A/M/L	38	0.0017	2	6	1	79.5	9.75E-03	25	15	5	2.56E+03	1.54E+03	5.13E+02

Calculation: Aggregate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: 2,4-D (Aquatic, Submerged, Treatment of pond bottom; Granular Formulation)
Program: Aquatic Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Margin of Exposure (MOE) Dermal Exposure (unitless)			Margin of Exposure (MOE) Inhalation Exposure (unitless)			Target MOE (TM)		Aggregate Index (ARI) [1/(TMderm/MOEderm) + (TMinh/MOEinh)]		
					Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Aquatic	Boat	Spot	A/M/L	5.05E+04	3.03E+04	1.01E+04	2.05E+04	1.23E+04	4.10E+03	100	100	1.46E+02	8.75E+01	2.92E+01
Max	Aquatic	Boat	Spot	A/M/L	1.68E+04	1.01E+04	3.37E+03	1.03E+04	6.15E+03	2.05E+03	100	100	6.37E+01	3.82E+01	1.27E+01
Typical	Aquatic	Boat	B/B	A/M/L	3.79E+04	2.27E+04	7.58E+03	1.54E+04	9.23E+03	3.08E+03	100	100	1.09E+02	6.57E+01	2.19E+01
Max	Aquatic	Boat	B/B	A/M/L	6.32E+03	3.79E+03	1.26E+03	2.56E+03	1.54E+03	5.13E+02	100	100	1.82E+01	1.09E+01	3.65E+00

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

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Dermal Unit Exposure (UEderm) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Dermal Dose [(AR x AT x H x UE x DAF)/BW] (mg a.e./kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	0.078	0.005	250	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Aerial	Plane	FW	M/L	0.078	0.0376	250	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Aerial	Helicopter	Rotary	P	0.078	0.005	100	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Aerial	Helicopter	Rotary	M/L	0.078	0.0376	100	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Human	Bpack	A/M/L	0.078	8.26	0.2	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Human	Hback	A/M/L	0.078	8.26	0.75	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	Spot	A	0.078	1.3	0.25	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	Spot	M/L	0.078	0.0376	0.25	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	0.078	1.3376	0.25	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	B/B	A	0.078	0.0161	0.8	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	B/B	M/L	0.078	0.0376	0.8	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	0.078	0.0537	0.8	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	A	0.078	1.3	0.38	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	M/L	0.078	0.0376	0.38	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	A/M/L	0.078	1.3376	0.38	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	A	0.078	0.0161	1.5	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	M/L	0.078	0.0376	1.5	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	A/M/L	0.078	0.0537	1.5	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Plane	FW	P	0.11	0.005	500	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Plane	FW	M/L	0.11	0.0376	500	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Helicopter	Rotary	P	0.11	0.005	200	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Helicopter	Rotary	M/L	0.11	0.0376	200	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Bpack	A/M/L	0.11	8.26	0.4	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Hback	A/M/L	0.11	8.26	1	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	Spot	A	0.11	1.3	0.5	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	Spot	M/L	0.11	0.0376	0.5	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	Spot	A/M/L	0.11	1.3376	0.5	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	B/B	A	0.11	0.0161	1.6	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	B/B	M/L	0.11	0.0376	1.6	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	B/B	A/M/L	0.11	0.0537	1.6	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	A	0.11	1.3	1	10	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	M/L	0.11	0.0376	1	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	A/M/L	0.11	1.3376	1	10	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	A	0.11	0.0161	2.25	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	M/L	0.11	0.0376	2.25	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	A/M/L	0.11	0.0537	2.25	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC

NA/NC - Not Available/Not calculated. Based on toxicity assessment, dermal exposure is not of concern.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Inhalation of Herbicide
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Inhalation Unit Exposure (UEinh) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Inhalation Absorption Factor (IAF)	Body Weight (BW) (kg)	Inhalation Dose [(AR x AT x H x UE x IAF)/BW)] (mg a.e./kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	0.078	0.000068	250	4	1	79.5	6.67E-05	104	104	NA	1.56E+06	1.56E+06	NC
Typical	Aerial	Plane	FW	M/L	0.078	0.000291	250	4	1	79.5	2.86E-04	104	104	NA	3.64E+05	3.64E+05	NC
Typical	Aerial	Helicopter	Rotary	P	0.078	0.000068	100	4	1	79.5	2.67E-05	104	104	NA	3.90E+06	3.90E+06	NC
Typical	Aerial	Helicopter	Rotary	M/L	0.078	0.000291	100	4	1	79.5	1.14E-04	104	104	NA	9.11E+05	9.11E+05	NC
Typical	Ground	Human	Bpack	A/M/L	0.078	0.00258	0.2	3	1	79.5	1.52E-06	104	104	NA	6.85E+07	6.85E+07	NC
Typical	Ground	Human	Hback	A/M/L	0.078	0.00258	0.75	6	1	79.5	1.14E-05	104	104	NA	9.13E+06	9.13E+06	NC
Typical	Ground	ATV/UTV	Spot	A	0.078	0.0039	0.25	5	1	79.5	4.78E-06	104	104	NA	2.17E+07	2.17E+07	NC
Typical	Ground	ATV/UTV	Spot	M/L	0.078	0.000291	0.25	3	1	79.5	2.14E-07	104	104	NA	4.86E+08	4.86E+08	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	0.078	0.004191	0.25	5	1	79.5	5.14E-06	104	104	NA	2.02E+07	2.02E+07	NC
Typical	Ground	ATV/UTV	B/B	A	0.078	0.00034	0.8	5	1	79.5	1.33E-06	104	104	NA	7.79E+07	7.79E+07	NC
Typical	Ground	ATV/UTV	B/B	M/L	0.078	0.000291	0.8	3	1	79.5	6.85E-07	104	104	NA	1.52E+08	1.52E+08	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	0.078	0.000631	0.8	5	1	79.5	2.48E-06	104	104	NA	4.20E+07	4.20E+07	NC
Typical	Ground	Truck Mount	Spot	A	0.078	0.0039	0.38	6	1	79.5	8.72E-06	104	104	NA	1.19E+07	1.19E+07	NC
Typical	Ground	Truck Mount	Spot	M/L	0.078	0.000291	0.38	4	1	79.5	4.34E-07	104	104	NA	2.40E+08	2.40E+08	NC
Typical	Ground	Truck Mount	Spot	A/M/L	0.078	0.004191	0.38	6	1	79.5	9.38E-06	104	104	NA	1.11E+07	1.11E+07	NC
Typical	Ground	Truck Mount	B/B	A	0.078	0.00034	1.5	5	1	79.5	2.50E-06	104	104	NA	4.16E+07	4.16E+07	NC
Typical	Ground	Truck Mount	B/B	M/L	0.078	0.000291	1.5	3	1	79.5	1.28E-06	104	104	NA	8.09E+07	8.09E+07	NC
Typical	Ground	Truck Mount	B/B	A/M/L	0.078	0.000631	1.5	5	1	79.5	4.64E-06	104	104	NA	2.24E+07	2.24E+07	NC
Max	Aerial	Plane	FW	P	0.11	0.000068	500	6	1	79.5	2.82E-04	104	104	NA	3.68E+05	3.68E+05	NC
Max	Aerial	Plane	FW	M/L	0.11	0.000291	500	6	1	79.5	1.21E-03	104	104	NA	8.61E+04	8.61E+04	NC
Max	Aerial	Helicopter	Rotary	P	0.11	0.000068	200	6	1	79.5	1.13E-04	104	104	NA	9.21E+05	9.21E+05	NC
Max	Aerial	Helicopter	Rotary	M/L	0.11	0.000291	200	6	1	79.5	4.83E-04	104	104	NA	2.15E+05	2.15E+05	NC
Max	Ground	Human	Bpack	A/M/L	0.11	0.00258	0.4	6	1	79.5	8.57E-06	104	104	NA	1.21E+07	1.21E+07	NC
Max	Ground	Human	Hback	A/M/L	0.11	0.00258	1	8	1	79.5	2.86E-05	104	104	NA	3.64E+06	3.64E+06	NC
Max	Ground	ATV/UTV	Spot	A	0.11	0.0039	0.5	9	1	79.5	2.43E-05	104	104	NA	4.28E+06	4.28E+06	NC
Max	Ground	ATV/UTV	Spot	M/L	0.11	0.000291	0.5	6	1	79.5	1.21E-06	104	104	NA	8.61E+07	8.61E+07	NC
Max	Ground	ATV/UTV	Spot	A/M/L	0.11	0.004191	0.5	9	1	79.5	2.61E-05	104	104	NA	3.99E+06	3.99E+06	NC
Max	Ground	ATV/UTV	B/B	A	0.11	0.00034	1.6	9	1	79.5	6.77E-06	104	104	NA	1.54E+07	1.54E+07	NC
Max	Ground	ATV/UTV	B/B	M/L	0.11	0.000291	1.6	5	1	79.5	3.22E-06	104	104	NA	3.23E+07	3.23E+07	NC
Max	Ground	ATV/UTV	B/B	A/M/L	0.11	0.000631	1.6	9	1	79.5	1.26E-05	104	104	NA	8.27E+06	8.27E+06	NC
Max	Ground	Truck Mount	Spot	A	0.11	0.0039	1	10	1	79.5	5.40E-05	104	104	NA	1.93E+06	1.93E+06	NC
Max	Ground	Truck Mount	Spot	M/L	0.11	0.000291	1	8	1	79.5	3.22E-06	104	104	NA	3.23E+07	3.23E+07	NC
Max	Ground	Truck Mount	Spot	A/M/L	0.11	0.004191	1	10	1	79.5	5.80E-05	104	104	NA	1.79E+06	1.79E+06	NC
Max	Ground	Truck Mount	B/B	A	0.11	0.00034	2.25	8	1	79.5	8.47E-06	104	104	NA	1.23E+07	1.23E+07	NC
Max	Ground	Truck Mount	B/B	M/L	0.11	0.000291	2.25	6	1	79.5	5.44E-06	104	104	NA	1.91E+07	1.91E+07	NC
Max	Ground	Truck Mount	B/B	A/M/L	0.11	0.000631	2.25	8	1	79.5	1.57E-05	104	104	NA	6.62E+06	6.62E+06	NC

NA/NC - Not Available/Not Calculated. Long-term inhalation is not a concern for seasonal treatment.

Calculation: Aggregate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

					Margin of Exposure (MOE) Dermal Exposure (unitless)			Margin of Exposure (MOE) Inhalation Exposure (unitless)			Target MOE (TM)		Aggregate Index (ARI) [1/(TMderm/MOEderm) + (TMinh/MOEinh)]		
Scenario	Application Type	Application Vehicle	Application Method	Receptor	Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Aerial	Plane	FW	P	NC	NC	NC	1.56E+06	1.56E+06	NC	100	100	1.56E+04	1.56E+04	NC
Typical	Aerial	Plane	FW	M/L	NC	NC	NC	3.64E+05	3.64E+05	NC	100	100	3.64E+03	3.64E+03	NC
Typical	Aerial	Helicopter	Rotary	P	NC	NC	NC	3.90E+06	3.90E+06	NC	100	100	3.90E+04	3.90E+04	NC
Typical	Aerial	Helicopter	Rotary	M/L	NC	NC	NC	9.11E+05	9.11E+05	NC	100	100	9.11E+03	9.11E+03	NC
Typical	Ground	Human	Bpack	A/M/L	NC	NC	NC	6.85E+07	6.85E+07	NC	100	100	6.85E+05	6.85E+05	NC
Typical	Ground	Human	Hback	A/M/L	NC	NC	NC	9.13E+06	9.13E+06	NC	100	100	9.13E+04	9.13E+04	NC
Typical	Ground	ATV/UTV	Spot	A	NC	NC	NC	2.17E+07	2.17E+07	NC	100	100	2.17E+05	2.17E+05	NC
Typical	Ground	ATV/UTV	Spot	M/L	NC	NC	NC	4.86E+08	4.86E+08	NC	100	100	4.86E+06	4.86E+06	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	NC	NC	NC	2.02E+07	2.02E+07	NC	100	100	2.02E+05	2.02E+05	NC
Typical	Ground	ATV/UTV	B/B	A	NC	NC	NC	7.79E+07	7.79E+07	NC	100	100	7.79E+05	7.79E+05	NC
Typical	Ground	ATV/UTV	B/B	M/L	NC	NC	NC	1.52E+08	1.52E+08	NC	100	100	1.52E+06	1.52E+06	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	NC	NC	NC	4.20E+07	4.20E+07	NC	100	100	4.20E+05	4.20E+05	NC
Typical	Ground	Truck Mount	Spot	A	NC	NC	NC	1.19E+07	1.19E+07	NC	100	100	1.19E+05	1.19E+05	NC
Typical	Ground	Truck Mount	Spot	M/L	NC	NC	NC	2.40E+08	2.40E+08	NC	100	100	2.40E+06	2.40E+06	NC
Typical	Ground	Truck Mount	Spot	A/M/L	NC	NC	NC	1.11E+07	1.11E+07	NC	100	100	1.11E+05	1.11E+05	NC
Typical	Ground	Truck Mount	B/B	A	NC	NC	NC	4.16E+07	4.16E+07	NC	100	100	4.16E+05	4.16E+05	NC
Typical	Ground	Truck Mount	B/B	M/L	NC	NC	NC	8.09E+07	8.09E+07	NC	100	100	8.09E+05	8.09E+05	NC
Typical	Ground	Truck Mount	B/B	A/M/L	NC	NC	NC	2.24E+07	2.24E+07	NC	100	100	2.24E+05	2.24E+05	NC
Max	Aerial	Plane	FW	P	NC	NC	NC	3.68E+05	3.68E+05	NC	100	100	3.68E+03	3.68E+03	NC
Max	Aerial	Plane	FW	M/L	NC	NC	NC	8.61E+04	8.61E+04	NC	100	100	8.61E+02	8.61E+02	NC
Max	Aerial	Helicopter	Rotary	P	NC	NC	NC	9.21E+05	9.21E+05	NC	100	100	9.21E+03	9.21E+03	NC
Max	Aerial	Helicopter	Rotary	M/L	NC	NC	NC	2.15E+05	2.15E+05	NC	100	100	2.15E+03	2.15E+03	NC
Max	Ground	Human	Bpack	A/M/L	NC	NC	NC	1.21E+07	1.21E+07	NC	100	100	1.21E+05	1.21E+05	NC
Max	Ground	Human	Hback	A/M/L	NC	NC	NC	3.64E+06	3.64E+06	NC	100	100	3.64E+04	3.64E+04	NC
Max	Ground	ATV/UTV	Spot	A	NC	NC	NC	4.28E+06	4.28E+06	NC	100	100	4.28E+04	4.28E+04	NC
Max	Ground	ATV/UTV	Spot	M/L	NC	NC	NC	8.61E+07	8.61E+07	NC	100	100	8.61E+05	8.61E+05	NC
Max	Ground	ATV/UTV	Spot	A/M/L	NC	NC	NC	3.99E+06	3.99E+06	NC	100	100	3.99E+04	3.99E+04	NC
Max	Ground	ATV/UTV	B/B	A	NC	NC	NC	1.54E+07	1.54E+07	NC	100	100	1.54E+05	1.54E+05	NC
Max	Ground	ATV/UTV	B/B	M/L	NC	NC	NC	3.23E+07	3.23E+07	NC	100	100	3.23E+05	3.23E+05	NC
Max	Ground	ATV/UTV	B/B	A/M/L	NC	NC	NC	8.27E+06	8.27E+06	NC	100	100	8.27E+04	8.27E+04	NC
Max	Ground	Truck Mount	Spot	A	NC	NC	NC	1.93E+06	1.93E+06	NC	100	100	1.93E+04	1.93E+04	NC
Max	Ground	Truck Mount	Spot	M/L	NC	NC	NC	3.23E+07	3.23E+07	NC	100	100	3.23E+05	3.23E+05	NC
Max	Ground	Truck Mount	Spot	A/M/L	NC	NC	NC	1.79E+06	1.79E+06	NC	100	100	1.79E+04	1.79E+04	NC
Max	Ground	Truck Mount	B/B	A	NC	NC	NC	1.23E+07	1.23E+07	NC	100	100	1.23E+05	1.23E+05	NC
Max	Ground	Truck Mount	B/B	M/L	NC	NC	NC	1.91E+07	1.91E+07	NC	100	100	1.91E+05	1.91E+05	NC
Max	Ground	Truck Mount	B/B	A/M/L	NC	NC	NC	6.62E+06	6.62E+06	NC	100	100	6.62E+04	6.62E+04	NC

NC - Not calculated. Based on toxicity assessment, dermal exposure is not of concern, and long-term inhalation is not a concern for seasonal treatment.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational Receptors (all) - Accidental Exposure (Spill)
Pathway: Dermal Contact with Herbicide
Herbicide: Aminopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Amount Spilled (S) (a) (L/day)	Concentration in Spill (Cs) (mg a.e./L)		Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Surface Area Ratio (SAR) (c)	Dermal Dose [(S x Cs x SAR x DAF)/BW] (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	Margin of Exposure (MOE) (unitless)	Target MOE (TM) (unitless)	Aggregate Risk Index (ARI) [1/(TM/MOE)] (unitless)
Concentrated Liquid	0.5	240,000	(b)	NA	79.5	44%	NC	NA	NC	100	NC

NC - Not calculated. Based on toxicity assessment, dermal exposure is not of concern.
(a) - It is assumed that the amount spilled is 0.5 liters.
(b) - See Table 4-6.
(c) - It is assumed that 80% of the spill lands on clothing with a 30% penetration rate through the clothing, and that 20% lands on bare skin. Therefore, the percentage of exposed skin equals 44%: (80% spilled to clothing * 30% penetration rate) + 20% spilled to bare skin.

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

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Dermal Unit Exposure (UEderm) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Dermal Dose [(AR x AT x H x UE x DAF)/BW] (mg a.e./kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	0.25	0.005	250	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Aerial	Plane	FW	M/L	0.25	0.0376	250	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Aerial	Helicopter	Rotary	P	0.25	0.005	100	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Aerial	Helicopter	Rotary	M/L	0.25	0.0376	100	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Human	Bpack	A/M/L	0.25	8.26	0.2	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Human	Hback	A/M/L	0.25	8.26	0.75	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	Spot	A	0.25	1.3	0.25	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	Spot	M/L	0.25	0.0376	0.25	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	0.25	1.3376	0.25	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	B/B	A	0.25	0.0161	0.8	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	B/B	M/L	0.25	0.0376	0.8	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	0.25	0.0537	0.8	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	A	0.25	1.3	0.38	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	M/L	0.25	0.0376	0.38	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	A/M/L	0.25	1.3376	0.38	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	A	0.25	0.0161	1.5	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	M/L	0.25	0.0376	1.5	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	A/M/L	0.25	0.0537	1.5	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Plane	FW	P	0.5	0.005	500	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Plane	FW	M/L	0.5	0.0376	500	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Helicopter	Rotary	P	0.5	0.005	200	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Helicopter	Rotary	M/L	0.5	0.0376	200	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Bpack	A/M/L	0.5	8.26	0.4	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Hback	A/M/L	0.5	8.26	1	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	Spot	A	0.5	1.3	0.5	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	Spot	M/L	0.5	0.0376	0.5	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	Spot	A/M/L	0.5	1.3376	0.5	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	B/B	A	0.5	0.0161	1.6	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	B/B	M/L	0.5	0.0376	1.6	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	B/B	A/M/L	0.5	0.0537	1.6	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	A	0.5	1.3	1	10	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	M/L	0.5	0.0376	1	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	A/M/L	0.5	1.3376	1	10	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	A	0.5	0.0161	2.25	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	M/L	0.5	0.0376	2.25	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	A/M/L	0.5	0.0537	2.25	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC

NA/NC - Not Available/Not calculated. Based on toxicity assessment, dermal exposure is not of concern.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Inhalation of Herbicide
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Inhalation Unit Exposure (UEinh) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Inhalation Absorption Factor (IAF)	Body Weight (BW) (kg)	Inhalation Dose [(AR x AT x H x UE x IAF)/BW)] (mg a.e./kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	0.25	0.000068	250	4	1	79.5	2.14E-04	75	15	NA	3.51E+05	7.01E+04	NC
Typical	Aerial	Plane	FW	M/L	0.25	0.000291	250	4	1	79.5	9.15E-04	75	15	NA	8.20E+04	1.64E+04	NC
Typical	Aerial	Helicopter	Rotary	P	0.25	0.000068	100	4	1	79.5	8.55E-05	75	15	NA	8.77E+05	1.75E+05	NC
Typical	Aerial	Helicopter	Rotary	M/L	0.25	0.000291	100	4	1	79.5	3.66E-04	75	15	NA	2.05E+05	4.10E+04	NC
Typical	Ground	Human	Bpack	A/M/L	0.25	0.00258	0.2	3	1	79.5	4.87E-06	75	15	NA	1.54E+07	3.08E+06	NC
Typical	Ground	Human	Hback	A/M/L	0.25	0.00258	0.75	6	1	79.5	3.65E-05	75	15	NA	2.05E+06	4.11E+05	NC
Typical	Ground	ATV/UTV	Spot	A	0.25	0.0039	0.25	5	1	79.5	1.53E-05	75	15	NA	4.89E+06	9.78E+05	NC
Typical	Ground	ATV/UTV	Spot	M/L	0.25	0.000291	0.25	3	1	79.5	6.86E-07	75	15	NA	1.09E+08	2.19E+07	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	0.25	0.004191	0.25	5	1	79.5	1.65E-05	75	15	NA	4.55E+06	9.11E+05	NC
Typical	Ground	ATV/UTV	B/B	A	0.25	0.00034	0.8	5	1	79.5	4.28E-06	75	15	NA	1.75E+07	3.51E+06	NC
Typical	Ground	ATV/UTV	B/B	M/L	0.25	0.000291	0.8	3	1	79.5	2.20E-06	75	15	NA	3.41E+07	6.83E+06	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	0.25	0.000631	0.8	5	1	79.5	7.94E-06	75	15	NA	9.45E+06	1.89E+06	NC
Typical	Ground	Truck Mount	Spot	A	0.25	0.0039	0.38	6	1	79.5	2.80E-05	75	15	NA	2.68E+06	5.36E+05	NC
Typical	Ground	Truck Mount	Spot	M/L	0.25	0.000291	0.38	4	1	79.5	1.39E-06	75	15	NA	5.39E+07	1.08E+07	NC
Typical	Ground	Truck Mount	Spot	A/M/L	0.25	0.004191	0.38	6	1	79.5	3.00E-05	75	15	NA	2.50E+06	4.99E+05	NC
Typical	Ground	Truck Mount	B/B	A	0.25	0.00034	1.5	5	1	79.5	8.02E-06	75	15	NA	9.35E+06	1.87E+06	NC
Typical	Ground	Truck Mount	B/B	M/L	0.25	0.000291	1.5	3	1	79.5	4.12E-06	75	15	NA	1.82E+07	3.64E+06	NC
Typical	Ground	Truck Mount	B/B	A/M/L	0.25	0.000631	1.5	5	1	79.5	1.49E-05	75	15	NA	5.04E+06	1.01E+06	NC
Max	Aerial	Plane	FW	P	0.5	0.000068	500	6	1	79.5	1.28E-03	75	15	NA	5.85E+04	1.17E+04	NC
Max	Aerial	Plane	FW	M/L	0.5	0.000291	500	6	1	79.5	5.49E-03	75	15	NA	1.37E+04	2.73E+03	NC
Max	Aerial	Helicopter	Rotary	P	0.5	0.000068	200	6	1	79.5	5.13E-04	75	15	NA	1.46E+05	2.92E+04	NC
Max	Aerial	Helicopter	Rotary	M/L	0.5	0.000291	200	6	1	79.5	2.20E-03	75	15	NA	3.41E+04	6.83E+03	NC
Max	Ground	Human	Bpack	A/M/L	0.5	0.00258	0.4	6	1	79.5	3.89E-05	75	15	NA	1.93E+06	3.85E+05	NC
Max	Ground	Human	Hback	A/M/L	0.5	0.00258	1	8	1	79.5	1.30E-04	75	15	NA	5.78E+05	1.16E+05	NC
Max	Ground	ATV/UTV	Spot	A	0.5	0.0039	0.5	9	1	79.5	1.10E-04	75	15	NA	6.79E+05	1.36E+05	NC
Max	Ground	ATV/UTV	Spot	M/L	0.5	0.000291	0.5	6	1	79.5	5.49E-06	75	15	NA	1.37E+07	2.73E+06	NC
Max	Ground	ATV/UTV	Spot	A/M/L	0.5	0.004191	0.5	9	1	79.5	1.19E-04	75	15	NA	6.32E+05	1.26E+05	NC
Max	Ground	ATV/UTV	B/B	A	0.5	0.00034	1.6	9	1	79.5	3.08E-05	75	15	NA	2.44E+06	4.87E+05	NC
Max	Ground	ATV/UTV	B/B	M/L	0.5	0.000291	1.6	5	1	79.5	1.46E-05	75	15	NA	5.12E+06	1.02E+06	NC
Max	Ground	ATV/UTV	B/B	A/M/L	0.5	0.000631	1.6	9	1	79.5	5.71E-05	75	15	NA	1.31E+06	2.62E+05	NC
Max	Ground	Truck Mount	Spot	A	0.5	0.0039	1	10	1	79.5	2.45E-04	75	15	NA	3.06E+05	6.12E+04	NC
Max	Ground	Truck Mount	Spot	M/L	0.5	0.000291	1	8	1	79.5	1.46E-05	75	15	NA	5.12E+06	1.02E+06	NC
Max	Ground	Truck Mount	Spot	A/M/L	0.5	0.004191	1	10	1	79.5	2.64E-04	75	15	NA	2.85E+05	5.69E+04	NC
Max	Ground	Truck Mount	B/B	A	0.5	0.00034	2.25	8	1	79.5	3.85E-05	75	15	NA	1.95E+06	3.90E+05	NC
Max	Ground	Truck Mount	B/B	M/L	0.5	0.000291	2.25	6	1	79.5	2.47E-05	75	15	NA	3.04E+06	6.07E+05	NC
Max	Ground	Truck Mount	B/B	A/M/L	0.5	0.000631	2.25	8	1	79.5	7.14E-05	75	15	NA	1.05E+06	2.10E+05	NC

NA/NC - Not Available/Not Calculated. Long-term inhalation is not a concern for seasonal treatment.

Calculation: Aggregate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

					Margin of Exposure (MOE) Dermal Exposure (unitless)			Margin of Exposure (MOE) Inhalation Exposure (unitless)			Target MOE (TM)		Aggregate Index (ARI) [1/(TMderm/MOEderm) + (TMinh/MOEinh)]		
Scenario	Application Type	Application Vehicle	Application Method	Receptor	Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Aerial	Plane	FW	P	NC	NC	NC	3.51E+05	7.01E+04	NC	100	100	3.51E+03	7.01E+02	NC
Typical	Aerial	Plane	FW	M/L	NC	NC	NC	8.20E+04	1.64E+04	NC	100	100	8.20E+02	1.64E+02	NC
Typical	Aerial	Helicopter	Rotary	P	NC	NC	NC	8.77E+05	1.75E+05	NC	100	100	8.77E+03	1.75E+03	NC
Typical	Aerial	Helicopter	Rotary	M/L	NC	NC	NC	2.05E+05	4.10E+04	NC	100	100	2.05E+03	4.10E+02	NC
Typical	Ground	Human	Bpack	A/M/L	NC	NC	NC	1.54E+07	3.08E+06	NC	100	100	1.54E+05	3.08E+04	NC
Typical	Ground	Human	Hback	A/M/L	NC	NC	NC	2.05E+06	4.11E+05	NC	100	100	2.05E+04	4.11E+03	NC
Typical	Ground	ATV/UTV	Spot	A	NC	NC	NC	4.89E+06	9.78E+05	NC	100	100	4.89E+04	9.78E+03	NC
Typical	Ground	ATV/UTV	Spot	M/L	NC	NC	NC	1.09E+08	2.19E+07	NC	100	100	1.09E+06	2.19E+05	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	NC	NC	NC	4.55E+06	9.11E+05	NC	100	100	4.55E+04	9.11E+03	NC
Typical	Ground	ATV/UTV	B/B	A	NC	NC	NC	1.75E+07	3.51E+06	NC	100	100	1.75E+05	3.51E+04	NC
Typical	Ground	ATV/UTV	B/B	M/L	NC	NC	NC	3.41E+07	6.83E+06	NC	100	100	3.41E+05	6.83E+04	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	NC	NC	NC	9.45E+06	1.89E+06	NC	100	100	9.45E+04	1.89E+04	NC
Typical	Ground	Truck Mount	Spot	A	NC	NC	NC	2.68E+06	5.36E+05	NC	100	100	2.68E+04	5.36E+03	NC
Typical	Ground	Truck Mount	Spot	M/L	NC	NC	NC	5.39E+07	1.08E+07	NC	100	100	5.39E+05	1.08E+05	NC
Typical	Ground	Truck Mount	Spot	A/M/L	NC	NC	NC	2.50E+06	4.99E+05	NC	100	100	2.50E+04	4.99E+03	NC
Typical	Ground	Truck Mount	B/B	A	NC	NC	NC	9.35E+06	1.87E+06	NC	100	100	9.35E+04	1.87E+04	NC
Typical	Ground	Truck Mount	B/B	M/L	NC	NC	NC	1.82E+07	3.64E+06	NC	100	100	1.82E+05	3.64E+04	NC
Typical	Ground	Truck Mount	B/B	A/M/L	NC	NC	NC	5.04E+06	1.01E+06	NC	100	100	5.04E+04	1.01E+04	NC
Max	Aerial	Plane	FW	P	NC	NC	NC	5.85E+04	1.17E+04	NC	100	100	5.85E+02	1.17E+02	NC
Max	Aerial	Plane	FW	M/L	NC	NC	NC	1.37E+04	2.73E+03	NC	100	100	1.37E+02	2.73E+01	NC
Max	Aerial	Helicopter	Rotary	P	NC	NC	NC	1.46E+05	2.92E+04	NC	100	100	1.46E+03	2.92E+02	NC
Max	Aerial	Helicopter	Rotary	M/L	NC	NC	NC	3.41E+04	6.83E+03	NC	100	100	3.41E+02	6.83E+01	NC
Max	Ground	Human	Bpack	A/M/L	NC	NC	NC	1.93E+06	3.85E+05	NC	100	100	1.93E+04	3.85E+03	NC
Max	Ground	Human	Hback	A/M/L	NC	NC	NC	5.78E+05	1.16E+05	NC	100	100	5.78E+03	1.16E+03	NC
Max	Ground	ATV/UTV	Spot	A	NC	NC	NC	6.79E+05	1.36E+05	NC	100	100	6.79E+03	1.36E+03	NC
Max	Ground	ATV/UTV	Spot	M/L	NC	NC	NC	1.37E+07	2.73E+06	NC	100	100	1.37E+05	2.73E+04	NC
Max	Ground	ATV/UTV	Spot	A/M/L	NC	NC	NC	6.32E+05	1.26E+05	NC	100	100	6.32E+03	1.26E+03	NC
Max	Ground	ATV/UTV	B/B	A	NC	NC	NC	2.44E+06	4.87E+05	NC	100	100	2.44E+04	4.87E+03	NC
Max	Ground	ATV/UTV	B/B	M/L	NC	NC	NC	5.12E+06	1.02E+06	NC	100	100	5.12E+04	1.02E+04	NC
Max	Ground	ATV/UTV	B/B	A/M/L	NC	NC	NC	1.31E+06	2.62E+05	NC	100	100	1.31E+04	2.62E+03	NC
Max	Ground	Truck Mount	Spot	A	NC	NC	NC	3.06E+05	6.12E+04	NC	100	100	3.06E+03	6.12E+02	NC
Max	Ground	Truck Mount	Spot	M/L	NC	NC	NC	5.12E+06	1.02E+06	NC	100	100	5.12E+04	1.02E+04	NC
Max	Ground	Truck Mount	Spot	A/M/L	NC	NC	NC	2.85E+05	5.69E+04	NC	100	100	2.85E+03	5.69E+02	NC
Max	Ground	Truck Mount	B/B	A	NC	NC	NC	1.95E+06	3.90E+05	NC	100	100	1.95E+04	3.90E+03	NC
Max	Ground	Truck Mount	B/B	M/L	NC	NC	NC	3.04E+06	6.07E+05	NC	100	100	3.04E+04	6.07E+03	NC
Max	Ground	Truck Mount	B/B	A/M/L	NC	NC	NC	1.05E+06	2.10E+05	NC	100	100	1.05E+04	2.10E+03	NC

NC - Not calculated. Based on toxicity assessment, dermal exposure is not of concern, and long-term inhalation is not a concern for seasonal treatment.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational Receptors (all) - Accidental Exposure (Spill)
Pathway: Dermal Contact with Herbicide
Herbicide: Clopyralid
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Amount Spilled (S) (a) (L/day)	Concentration in Spill (Cs) (mg a.e./L)		Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Surface Area Ratio (SAR) (c)	Dermal Dose [(S x Cs x SAR x DAF)/BW] (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	Margin of Exposure (MOE) (unitless)	Target MOE (TM) (unitless)	Aggregate Risk Index (ARI) [1/(TM/MOE)] (unitless)
Concentrated Liquid	0.5	360,000	(b)	NA	79.5	44%	NC	NA	NC	100	NC

NC - Not calculated. Based on toxicity assessment, dermal exposure is not of concern.
(a) - It is assumed that the amount spilled is 0.5 liters.
(b) - See Table 4-6.
(c) - It is assumed that 80% of the spill lands on clothing with a 30% penetration rate through the clothing, and that 20% lands on bare skin. Therefore, the percentage of exposed skin equals 44%: (80% spilled to clothing * 30% penetration rate) + 20% spilled to bare skin.

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

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Dermal Unit Exposure (UEderm) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Dermal Dose [(AR x AT x H x UE x DAF)/BW] (mg a.e./kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	0.26	0.005	250	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Aerial	Plane	FW	M/L	0.26	0.0376	250	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Aerial	Helicopter	Rotary	P	0.26	0.005	100	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Aerial	Helicopter	Rotary	M/L	0.26	0.0376	100	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Human	Bpack	A/M/L	0.26	8.26	0.2	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Human	Hback	A/M/L	0.26	8.26	0.75	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	Spot	A	0.26	1.3	0.25	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	Spot	M/L	0.26	0.0376	0.25	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	0.26	1.3376	0.25	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	B/B	A	0.26	0.0161	0.8	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	B/B	M/L	0.26	0.0376	0.8	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	0.26	0.0537	0.8	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	A	0.26	1.3	0.38	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	M/L	0.26	0.0376	0.38	4	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	A/M/L	0.26	1.3376	0.38	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	A	0.26	0.0161	1.5	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	M/L	0.26	0.0376	1.5	3	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	A/M/L	0.26	0.0537	1.5	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Plane	FW	P	0.5	0.005	500	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Plane	FW	M/L	0.5	0.0376	500	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Helicopter	Rotary	P	0.5	0.005	200	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Aerial	Helicopter	Rotary	M/L	0.5	0.0376	200	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Bpack	A/M/L	0.5	8.26	0.4	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Hback	A/M/L	0.5	8.26	1	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	Spot	A	0.5	1.3	0.5	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	Spot	M/L	0.5	0.0376	0.5	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	Spot	A/M/L	0.5	1.3376	0.5	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	B/B	A	0.5	0.0161	1.6	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	B/B	M/L	0.5	0.0376	1.6	5	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	ATV/UTV	B/B	A/M/L	0.5	0.0537	1.6	9	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	A	0.5	1.3	1	10	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	M/L	0.5	0.0376	1	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	A/M/L	0.5	1.3376	1	10	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	A	0.5	0.0161	2.25	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	M/L	0.5	0.0376	2.25	6	NA	79.5	NC	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	A/M/L	0.5	0.0537	2.25	8	NA	79.5	NC	NA	NA	NA	NC	NC	NC

NA/NC - Not Available/Not calculated. Based on toxicity assessment, dermal exposure is not of concern.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Inhalation of Herbicide
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.e./acre)	Inhalation Unit Exposure (UEinh) (mg/lb a.e.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Inhalation Absorption Factor (IAF)	Body Weight (BW) (kg)	Inhalation Dose [(AR x AT x H x UE x IAF)/BW)] (mg a.e./kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	0.26	0.000068	250	4	1	79.5	2.22E-04	100	100	100	4.50E+05	4.50E+05	4.50E+05
Typical	Aerial	Plane	FW	M/L	0.26	0.000291	250	4	1	79.5	9.52E-04	100	100	100	1.05E+05	1.05E+05	1.05E+05
Typical	Aerial	Helicopter	Rotary	P	0.26	0.000068	100	4	1	79.5	8.90E-05	100	100	100	1.12E+06	1.12E+06	1.12E+06
Typical	Aerial	Helicopter	Rotary	M/L	0.26	0.000291	100	4	1	79.5	3.81E-04	100	100	100	2.63E+05	2.63E+05	2.63E+05
Typical	Ground	Human	Bpack	A/M/L	0.26	0.00258	0.2	3	1	79.5	5.06E-06	100	100	100	1.98E+07	1.98E+07	1.98E+07
Typical	Ground	Human	Hback	A/M/L	0.26	0.00258	0.75	6	1	79.5	3.80E-05	100	100	100	2.63E+06	2.63E+06	2.63E+06
Typical	Ground	ATV/UTV	Spot	A	0.26	0.0039	0.25	5	1	79.5	1.59E-05	100	100	100	6.27E+06	6.27E+06	6.27E+06
Typical	Ground	ATV/UTV	Spot	M/L	0.26	0.000291	0.25	3	1	79.5	7.14E-07	100	100	100	1.40E+08	1.40E+08	1.40E+08
Typical	Ground	ATV/UTV	Spot	A/M/L	0.26	0.004191	0.25	5	1	79.5	1.71E-05	100	100	100	5.84E+06	5.84E+06	5.84E+06
Typical	Ground	ATV/UTV	B/B	A	0.26	0.00034	0.8	5	1	79.5	4.45E-06	100	100	100	2.25E+07	2.25E+07	2.25E+07
Typical	Ground	ATV/UTV	B/B	M/L	0.26	0.000291	0.8	3	1	79.5	2.28E-06	100	100	100	4.38E+07	4.38E+07	4.38E+07
Typical	Ground	ATV/UTV	B/B	A/M/L	0.26	0.000631	0.8	5	1	79.5	8.25E-06	100	100	100	1.21E+07	1.21E+07	1.21E+07
Typical	Ground	Truck Mount	Spot	A	0.26	0.0039	0.38	6	1	79.5	2.91E-05	100	100	100	3.44E+06	3.44E+06	3.44E+06
Typical	Ground	Truck Mount	Spot	M/L	0.26	0.000291	0.38	4	1	79.5	1.45E-06	100	100	100	6.91E+07	6.91E+07	6.91E+07
Typical	Ground	Truck Mount	Spot	A/M/L	0.26	0.004191	0.38	6	1	79.5	3.13E-05	100	100	100	3.20E+06	3.20E+06	3.20E+06
Typical	Ground	Truck Mount	B/B	A	0.26	0.00034	1.5	5	1	79.5	8.34E-06	100	100	100	1.20E+07	1.20E+07	1.20E+07
Typical	Ground	Truck Mount	B/B	M/L	0.26	0.000291	1.5	3	1	79.5	4.28E-06	100	100	100	2.34E+07	2.34E+07	2.34E+07
Typical	Ground	Truck Mount	B/B	A/M/L	0.26	0.000631	1.5	5	1	79.5	1.55E-05	100	100	100	6.46E+06	6.46E+06	6.46E+06
Max	Aerial	Plane	FW	P	0.5	0.000068	500	6	1	79.5	1.28E-03	100	100	100	7.79E+04	7.79E+04	7.79E+04
Max	Aerial	Plane	FW	M/L	0.5	0.000291	500	6	1	79.5	5.49E-03	100	100	100	1.82E+04	1.82E+04	1.82E+04
Max	Aerial	Helicopter	Rotary	P	0.5	0.000068	200	6	1	79.5	5.13E-04	100	100	100	1.95E+05	1.95E+05	1.95E+05
Max	Aerial	Helicopter	Rotary	M/L	0.5	0.000291	200	6	1	79.5	2.20E-03	100	100	100	4.55E+04	4.55E+04	4.55E+04
Max	Ground	Human	Bpack	A/M/L	0.5	0.00258	0.4	6	1	79.5	3.89E-05	100	100	100	2.57E+06	2.57E+06	2.57E+06
Max	Ground	Human	Hback	A/M/L	0.5	0.00258	1	8	1	79.5	1.30E-04	100	100	100	7.70E+05	7.70E+05	7.70E+05
Max	Ground	ATV/UTV	Spot	A	0.5	0.0039	0.5	9	1	79.5	1.10E-04	100	100	100	9.06E+05	9.06E+05	9.06E+05
Max	Ground	ATV/UTV	Spot	M/L	0.5	0.000291	0.5	6	1	79.5	5.49E-06	100	100	100	1.82E+07	1.82E+07	1.82E+07
Max	Ground	ATV/UTV	Spot	A/M/L	0.5	0.004191	0.5	9	1	79.5	1.19E-04	100	100	100	8.43E+05	8.43E+05	8.43E+05
Max	Ground	ATV/UTV	B/B	A	0.5	0.00034	1.6	9	1	79.5	3.08E-05	100	100	100	3.25E+06	3.25E+06	3.25E+06
Max	Ground	ATV/UTV	B/B	M/L	0.5	0.000291	1.6	5	1	79.5	1.46E-05	100	100	100	6.83E+06	6.83E+06	6.83E+06
Max	Ground	ATV/UTV	B/B	A/M/L	0.5	0.000631	1.6	9	1	79.5	5.71E-05	100	100	100	1.75E+06	1.75E+06	1.75E+06
Max	Ground	Truck Mount	Spot	A	0.5	0.0039	1	10	1	79.5	2.45E-04	100	100	100	4.08E+05	4.08E+05	4.08E+05
Max	Ground	Truck Mount	Spot	M/L	0.5	0.000291	1	8	1	79.5	1.46E-05	100	100	100	6.83E+06	6.83E+06	6.83E+06
Max	Ground	Truck Mount	Spot	A/M/L	0.5	0.004191	1	10	1	79.5	2.64E-04	100	100	100	3.79E+05	3.79E+05	3.79E+05
Max	Ground	Truck Mount	B/B	A	0.5	0.00034	2.25	8	1	79.5	3.85E-05	100	100	100	2.60E+06	2.60E+06	2.60E+06
Max	Ground	Truck Mount	B/B	M/L	0.5	0.000291	2.25	6	1	79.5	2.47E-05	100	100	100	4.05E+06	4.05E+06	4.05E+06
Max	Ground	Truck Mount	B/B	A/M/L	0.5	0.000631	2.25	8	1	79.5	7.14E-05	100	100	100	1.40E+06	1.40E+06	1.40E+06

Calculation: Aggregate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

					Margin of Exposure (MOE) Dermal Exposure (unitless)			Margin of Exposure (MOE) Inhalation Exposure (unitless)			Target MOE (TM)		Aggregate Index (ARI) [1/(TMderm/MOEderm) + (TMinh/MOEinh)]		
Scenario	Application Type	Application Vehicle	Application Method	Receptor	Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Aerial	Plane	FW	P	NC	NC	NC	4.50E+05	4.50E+05	4.50E+05	100	100	4.50E+03	4.50E+03	4.50E+03
Typical	Aerial	Plane	FW	M/L	NC	NC	NC	1.05E+05	1.05E+05	1.05E+05	100	100	1.05E+03	1.05E+03	1.05E+03
Typical	Aerial	Helicopter	Rotary	P	NC	NC	NC	1.12E+06	1.12E+06	1.12E+06	100	100	1.12E+04	1.12E+04	1.12E+04
Typical	Aerial	Helicopter	Rotary	M/L	NC	NC	NC	2.63E+05	2.63E+05	2.63E+05	100	100	2.63E+03	2.63E+03	2.63E+03
Typical	Ground	Human	Bpack	A/M/L	NC	NC	NC	1.98E+07	1.98E+07	1.98E+07	100	100	1.98E+05	1.98E+05	1.98E+05
Typical	Ground	Human	Hback	A/M/L	NC	NC	NC	2.63E+06	2.63E+06	2.63E+06	100	100	2.63E+04	2.63E+04	2.63E+04
Typical	Ground	ATV/UTV	Spot	A	NC	NC	NC	6.27E+06	6.27E+06	6.27E+06	100	100	6.27E+04	6.27E+04	6.27E+04
Typical	Ground	ATV/UTV	Spot	M/L	NC	NC	NC	1.40E+08	1.40E+08	1.40E+08	100	100	1.40E+06	1.40E+06	1.40E+06
Typical	Ground	ATV/UTV	Spot	A/M/L	NC	NC	NC	5.84E+06	5.84E+06	5.84E+06	100	100	5.84E+04	5.84E+04	5.84E+04
Typical	Ground	ATV/UTV	B/B	A	NC	NC	NC	2.25E+07	2.25E+07	2.25E+07	100	100	2.25E+05	2.25E+05	2.25E+05
Typical	Ground	ATV/UTV	B/B	M/L	NC	NC	NC	4.38E+07	4.38E+07	4.38E+07	100	100	4.38E+05	4.38E+05	4.38E+05
Typical	Ground	ATV/UTV	B/B	A/M/L	NC	NC	NC	1.21E+07	1.21E+07	1.21E+07	100	100	1.21E+05	1.21E+05	1.21E+05
Typical	Ground	Truck Mount	Spot	A	NC	NC	NC	3.44E+06	3.44E+06	3.44E+06	100	100	3.44E+04	3.44E+04	3.44E+04
Typical	Ground	Truck Mount	Spot	M/L	NC	NC	NC	6.91E+07	6.91E+07	6.91E+07	100	100	6.91E+05	6.91E+05	6.91E+05
Typical	Ground	Truck Mount	Spot	A/M/L	NC	NC	NC	3.20E+06	3.20E+06	3.20E+06	100	100	3.20E+04	3.20E+04	3.20E+04
Typical	Ground	Truck Mount	B/B	A	NC	NC	NC	1.20E+07	1.20E+07	1.20E+07	100	100	1.20E+05	1.20E+05	1.20E+05
Typical	Ground	Truck Mount	B/B	M/L	NC	NC	NC	2.34E+07	2.34E+07	2.34E+07	100	100	2.34E+05	2.34E+05	2.34E+05
Typical	Ground	Truck Mount	B/B	A/M/L	NC	NC	NC	6.46E+06	6.46E+06	6.46E+06	100	100	6.46E+04	6.46E+04	6.46E+04
Max	Aerial	Plane	FW	P	NC	NC	NC	7.79E+04	7.79E+04	7.79E+04	100	100	7.79E+02	7.79E+02	7.79E+02
Max	Aerial	Plane	FW	M/L	NC	NC	NC	1.82E+04	1.82E+04	1.82E+04	100	100	1.82E+02	1.82E+02	1.82E+02
Max	Aerial	Helicopter	Rotary	P	NC	NC	NC	1.95E+05	1.95E+05	1.95E+05	100	100	1.95E+03	1.95E+03	1.95E+03
Max	Aerial	Helicopter	Rotary	M/L	NC	NC	NC	4.55E+04	4.55E+04	4.55E+04	100	100	4.55E+02	4.55E+02	4.55E+02
Max	Ground	Human	Bpack	A/M/L	NC	NC	NC	2.57E+06	2.57E+06	2.57E+06	100	100	2.57E+04	2.57E+04	2.57E+04
Max	Ground	Human	Hback	A/M/L	NC	NC	NC	7.70E+05	7.70E+05	7.70E+05	100	100	7.70E+03	7.70E+03	7.70E+03
Max	Ground	ATV/UTV	Spot	A	NC	NC	NC	9.06E+05	9.06E+05	9.06E+05	100	100	9.06E+03	9.06E+03	9.06E+03
Max	Ground	ATV/UTV	Spot	M/L	NC	NC	NC	1.82E+07	1.82E+07	1.82E+07	100	100	1.82E+05	1.82E+05	1.82E+05
Max	Ground	ATV/UTV	Spot	A/M/L	NC	NC	NC	8.43E+05	8.43E+05	8.43E+05	100	100	8.43E+03	8.43E+03	8.43E+03
Max	Ground	ATV/UTV	B/B	A	NC	NC	NC	3.25E+06	3.25E+06	3.25E+06	100	100	3.25E+04	3.25E+04	3.25E+04
Max	Ground	ATV/UTV	B/B	M/L	NC	NC	NC	6.83E+06	6.83E+06	6.83E+06	100	100	6.83E+04	6.83E+04	6.83E+04
Max	Ground	ATV/UTV	B/B	A/M/L	NC	NC	NC	1.75E+06	1.75E+06	1.75E+06	100	100	1.75E+04	1.75E+04	1.75E+04
Max	Ground	Truck Mount	Spot	A	NC	NC	NC	4.08E+05	4.08E+05	4.08E+05	100	100	4.08E+03	4.08E+03	4.08E+03
Max	Ground	Truck Mount	Spot	M/L	NC	NC	NC	6.83E+06	6.83E+06	6.83E+06	100	100	6.83E+04	6.83E+04	6.83E+04
Max	Ground	Truck Mount	Spot	A/M/L	NC	NC	NC	3.79E+05	3.79E+05	3.79E+05	100	100	3.79E+03	3.79E+03	3.79E+03
Max	Ground	Truck Mount	B/B	A	NC	NC	NC	2.60E+06	2.60E+06	2.60E+06	100	100	2.60E+04	2.60E+04	2.60E+04
Max	Ground	Truck Mount	B/B	M/L	NC	NC	NC	4.05E+06	4.05E+06	4.05E+06	100	100	4.05E+04	4.05E+04	4.05E+04
Max	Ground	Truck Mount	B/B	A/M/L	NC	NC	NC	1.40E+06	1.40E+06	1.40E+06	100	100	1.40E+04	1.40E+04	1.40E+04

NC - Not calculated. Based on toxicity assessment, dermal exposure is not of concern.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational Receptors (all) - Accidental Exposure (Spill)
Pathway: Dermal Contact with Herbicide
Herbicide: Fluroxypyr
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Amount Spilled (S) (a) (L/day)	Concentration in Spill (Cs) (mg a.e./L)		Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Surface Area Ratio (SAR) (c)	Dermal Dose [(S x Cs x SAR x DAF)/BW] (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	Margin of Exposure (MOE) (unitless)	Target MOE (TM) (unitless)	Aggregate Risk Index (ARI) [1/(TM/MOE)] (unitless)
Concentrated Liquid	0.5	336,000	(b)	NA	79.5	44%	NC	NA	NC	100	NC

NC - Not calculated. Based on toxicity assessment, dermal exposure is not of concern.
(a) - It is assumed that the amount spilled is 0.5 liters.
(b) - See Table 4-6.
(c) - It is assumed that 80% of the spill lands on clothing with a 30% penetration rate through the clothing, and that 20% lands on bare skin. Therefore, the percentage of exposed skin equals 44%: (80% spilled to clothing * 30% penetration rate) + 20% spilled to bare skin.

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

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.i./acre)	Dermal Unit Exposure (UEderm) (mg/lb a.i.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Dermal Dose [(AR x AT x H x UE x DAF)/BW] (mg a.i./kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	0.0625	0.005	250	4	0.17	79.5	6.68E-04	6.25	6.25	NA	9.35E+03	9.35E+03	NC
Typical	Aerial	Plane	FW	M/L	0.0625	0.0516	250	4	0.17	79.5	6.90E-03	6.25	6.25	NA	9.06E+02	9.06E+02	NC
Typical	Aerial	Helicopter	Rotary	P	0.0625	0.005	100	4	0.17	79.5	2.67E-04	6.25	6.25	NA	2.34E+04	2.34E+04	NC
Typical	Aerial	Helicopter	Rotary	M/L	0.0625	0.0516	100	4	0.17	79.5	2.76E-03	6.25	6.25	NA	2.27E+03	2.27E+03	NC
Typical	Ground	Human	Bpack	A/M/L	0.0625	8.26	0.2	3	0.17	79.5	6.62E-04	6.25	6.25	NA	9.44E+03	9.44E+03	NC
Typical	Ground	Human	Hback	A/M/L	0.0625	8.26	0.75	6	0.17	79.5	4.97E-03	6.25	6.25	NA	1.26E+03	1.26E+03	NC
Typical	Ground	ATV/UTV	Spot	A	0.0625	1.3	0.25	5	0.17	79.5	2.17E-04	6.25	6.25	NA	2.88E+04	2.88E+04	NC
Typical	Ground	ATV/UTV	Spot	M/L	0.0625	0.0516	0.25	3	0.17	79.5	5.17E-06	6.25	6.25	NA	1.21E+06	1.21E+06	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	0.0625	1.3516	0.25	5	0.17	79.5	2.26E-04	6.25	6.25	NA	2.77E+04	2.77E+04	NC
Typical	Ground	ATV/UTV	B/B	A	0.0625	0.0161	0.8	5	0.17	79.5	8.61E-06	6.25	6.25	NA	7.26E+05	7.26E+05	NC
Typical	Ground	ATV/UTV	B/B	M/L	0.0625	0.0516	0.8	3	0.17	79.5	1.66E-05	6.25	6.25	NA	3.78E+05	3.78E+05	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	0.0625	0.0677	0.8	5	0.17	79.5	3.62E-05	6.25	6.25	NA	1.73E+05	1.73E+05	NC
Typical	Ground	Truck Mount	Spot	A	0.0625	1.3	0.38	6	0.17	79.5	3.96E-04	6.25	6.25	NA	1.58E+04	1.58E+04	NC
Typical	Ground	Truck Mount	Spot	M/L	0.0625	0.0516	0.38	4	0.17	79.5	1.05E-05	6.25	6.25	NA	5.96E+05	5.96E+05	NC
Typical	Ground	Truck Mount	Spot	A/M/L	0.0625	1.3516	0.38	6	0.17	79.5	4.12E-04	6.25	6.25	NA	1.52E+04	1.52E+04	NC
Typical	Ground	Truck Mount	B/B	A	0.0625	0.0161	1.5	5	0.17	79.5	1.61E-05	6.25	6.25	NA	3.87E+05	3.87E+05	NC
Typical	Ground	Truck Mount	B/B	M/L	0.0625	0.0516	1.5	3	0.17	79.5	3.10E-05	6.25	6.25	NA	2.01E+05	2.01E+05	NC
Typical	Ground	Truck Mount	B/B	A/M/L	0.0625	0.0677	1.5	5	0.17	79.5	6.79E-05	6.25	6.25	NA	9.21E+04	9.21E+04	NC
Max	Aerial	Plane	FW	P	0.0625	0.005	500	6	0.17	79.5	2.00E-03	6.25	6.25	NA	3.12E+03	3.12E+03	NC
Max	Aerial	Plane	FW	M/L	0.0625	0.0516	500	6	0.17	79.5	2.07E-02	6.25	6.25	NA	3.02E+02	3.02E+02	NC
Max	Aerial	Helicopter	Rotary	P	0.0625	0.005	200	6	0.17	79.5	8.02E-04	6.25	6.25	NA	7.79E+03	7.79E+03	NC
Max	Aerial	Helicopter	Rotary	M/L	0.0625	0.0516	200	6	0.17	79.5	8.28E-03	6.25	6.25	NA	7.55E+02	7.55E+02	NC
Max	Ground	Human	Bpack	A/M/L	0.0625	8.26	0.4	6	0.17	79.5	2.65E-03	6.25	6.25	NA	2.36E+03	2.36E+03	NC
Max	Ground	Human	Hback	A/M/L	0.0625	8.26	1	8	0.17	79.5	8.83E-03	6.25	6.25	NA	7.08E+02	7.08E+02	NC
Max	Ground	ATV/UTV	Spot	A	0.0625	1.3	0.5	9	0.17	79.5	7.82E-04	6.25	6.25	NA	7.99E+03	7.99E+03	NC
Max	Ground	ATV/UTV	Spot	M/L	0.0625	0.0516	0.5	6	0.17	79.5	2.07E-05	6.25	6.25	NA	3.02E+05	3.02E+05	NC
Max	Ground	ATV/UTV	Spot	A/M/L	0.0625	1.3516	0.5	9	0.17	79.5	8.13E-04	6.25	6.25	NA	7.69E+03	7.69E+03	NC
Max	Ground	ATV/UTV	B/B	A	0.0625	0.0161	1.6	9	0.17	79.5	3.10E-05	6.25	6.25	NA	2.02E+05	2.02E+05	NC
Max	Ground	ATV/UTV	B/B	M/L	0.0625	0.0516	1.6	5	0.17	79.5	5.52E-05	6.25	6.25	NA	1.13E+05	1.13E+05	NC
Max	Ground	ATV/UTV	B/B	A/M/L	0.0625	0.0677	1.6	9	0.17	79.5	1.30E-04	6.25	6.25	NA	4.80E+04	4.80E+04	NC
Max	Ground	Truck Mount	Spot	A	0.0625	1.3	1	10	0.17	79.5	1.74E-03	6.25	6.25	NA	3.60E+03	3.60E+03	NC
Max	Ground	Truck Mount	Spot	M/L	0.0625	0.0516	1	8	0.17	79.5	5.52E-05	6.25	6.25	NA	1.13E+05	1.13E+05	NC
Max	Ground	Truck Mount	Spot	A/M/L	0.0625	1.3516	1	10	0.17	79.5	1.81E-03	6.25	6.25	NA	3.46E+03	3.46E+03	NC
Max	Ground	Truck Mount	B/B	A	0.0625	0.0161	2.25	8	0.17	79.5	3.87E-05	6.25	6.25	NA	1.61E+05	1.61E+05	NC
Max	Ground	Truck Mount	B/B	M/L	0.0625	0.0516	2.25	6	0.17	79.5	9.31E-05	6.25	6.25	NA	6.71E+04	6.71E+04	NC
Max	Ground	Truck Mount	B/B	A/M/L	0.0625	0.0677	2.25	8	0.17	79.5	1.63E-04	6.25	6.25	NA	3.84E+04	3.84E+04	NC

NA/NC - Not Available/Not calculated. Based on toxicity assessment, dermal exposure is not of concern.
Typical application rate for rangeland and public domain forest land is 0.0469 lb a.i./acre; since the typical rate for other programs is higher and does not show potential risk, the higher rate is used.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational - Routine Exposure
Pathway: Inhalation of Herbicide
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Application Rate (AR) (lb a.i./acre)	Inhalation Unit Exposure (UEinh) (mg/lb a.i.)	Acres Treated (AT) per Hour	Hours (H) Per Day	Inhalation Absorption Factor (IAF)	Body Weight (BW) (kg)	Inhalation Dose [(AR x AT x H x UE x IAF)/BW)] (mg a.i./kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure (MOE) (NOAEL/Dose) (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Aerial	Plane	FW	P	0.0625	0.000068	250	4	1	79.5	5.35E-05	6.25	6.25	NA	1.17E+05	1.17E+05	NC
Typical	Aerial	Plane	FW	M/L	0.0625	0.00896	250	4	1	79.5	7.04E-03	6.25	6.25	NA	8.87E+02	8.87E+02	NC
Typical	Aerial	Helicopter	Rotary	P	0.0625	0.000068	100	4	1	79.5	2.14E-05	6.25	6.25	NA	2.92E+05	2.92E+05	NC
Typical	Aerial	Helicopter	Rotary	M/L	0.0625	0.00896	100	4	1	79.5	2.82E-03	6.25	6.25	NA	2.22E+03	2.22E+03	NC
Typical	Ground	Human	Bpack	A/M/L	0.0625	0.00258	0.2	3	1	79.5	1.22E-06	6.25	6.25	NA	5.14E+06	5.14E+06	NC
Typical	Ground	Human	Hback	A/M/L	0.0625	0.00258	0.75	6	1	79.5	9.13E-06	6.25	6.25	NA	6.85E+05	6.85E+05	NC
Typical	Ground	ATV/UTV	Spot	A	0.0625	0.0039	0.25	5	1	79.5	3.83E-06	6.25	6.25	NA	1.63E+06	1.63E+06	NC
Typical	Ground	ATV/UTV	Spot	M/L	0.0625	0.00896	0.25	3	1	79.5	5.28E-06	6.25	6.25	NA	1.18E+06	1.18E+06	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	0.0625	0.01286	0.25	5	1	79.5	1.26E-05	6.25	6.25	NA	4.95E+05	4.95E+05	NC
Typical	Ground	ATV/UTV	B/B	A	0.0625	0.00034	0.8	5	1	79.5	1.07E-06	6.25	6.25	NA	5.85E+06	5.85E+06	NC
Typical	Ground	ATV/UTV	B/B	M/L	0.0625	0.00896	0.8	3	1	79.5	1.69E-05	6.25	6.25	NA	3.70E+05	3.70E+05	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	0.0625	0.0093	0.8	5	1	79.5	2.92E-05	6.25	6.25	NA	2.14E+05	2.14E+05	NC
Typical	Ground	Truck Mount	Spot	A	0.0625	0.0039	0.38	6	1	79.5	6.99E-06	6.25	6.25	NA	8.94E+05	8.94E+05	NC
Typical	Ground	Truck Mount	Spot	M/L	0.0625	0.00896	0.38	4	1	79.5	1.07E-05	6.25	6.25	NA	5.84E+05	5.84E+05	NC
Typical	Ground	Truck Mount	Spot	A/M/L	0.0625	0.01286	0.38	6	1	79.5	2.31E-05	6.25	6.25	NA	2.71E+05	2.71E+05	NC
Typical	Ground	Truck Mount	B/B	A	0.0625	0.00034	1.5	5	1	79.5	2.00E-06	6.25	6.25	NA	3.12E+06	3.12E+06	NC
Typical	Ground	Truck Mount	B/B	M/L	0.0625	0.00896	1.5	3	1	79.5	3.17E-05	6.25	6.25	NA	1.97E+05	1.97E+05	NC
Typical	Ground	Truck Mount	B/B	A/M/L	0.0625	0.0093	1.5	5	1	79.5	5.48E-05	6.25	6.25	NA	1.14E+05	1.14E+05	NC
Max	Aerial	Plane	FW	P	0.0625	0.000068	500	6	1	79.5	1.60E-04	6.25	6.25	NA	3.90E+04	3.90E+04	NC
Max	Aerial	Plane	FW	M/L	0.0625	0.00896	500	6	1	79.5	2.11E-02	6.25	6.25	NA	2.96E+02	2.96E+02	NC
Max	Aerial	Helicopter	Rotary	P	0.0625	0.000068	200	6	1	79.5	6.42E-05	6.25	6.25	NA	9.74E+04	9.74E+04	NC
Max	Aerial	Helicopter	Rotary	M/L	0.0625	0.00896	200	6	1	79.5	8.45E-03	6.25	6.25	NA	7.39E+02	7.39E+02	NC
Max	Ground	Human	Bpack	A/M/L	0.0625	0.00258	0.4	6	1	79.5	4.87E-06	6.25	6.25	NA	1.28E+06	1.28E+06	NC
Max	Ground	Human	Hback	A/M/L	0.0625	0.00258	1	8	1	79.5	1.62E-05	6.25	6.25	NA	3.85E+05	3.85E+05	NC
Max	Ground	ATV/UTV	Spot	A	0.0625	0.0039	0.5	9	1	79.5	1.38E-05	6.25	6.25	NA	4.53E+05	4.53E+05	NC
Max	Ground	ATV/UTV	Spot	M/L	0.0625	0.00896	0.5	6	1	79.5	2.11E-05	6.25	6.25	NA	2.96E+05	2.96E+05	NC
Max	Ground	ATV/UTV	Spot	A/M/L	0.0625	0.01286	0.5	9	1	79.5	4.55E-05	6.25	6.25	NA	1.37E+05	1.37E+05	NC
Max	Ground	ATV/UTV	B/B	A	0.0625	0.00034	1.6	9	1	79.5	3.85E-06	6.25	6.25	NA	1.62E+06	1.62E+06	NC
Max	Ground	ATV/UTV	B/B	M/L	0.0625	0.00896	1.6	5	1	79.5	5.64E-05	6.25	6.25	NA	1.11E+05	1.11E+05	NC
Max	Ground	ATV/UTV	B/B	A/M/L	0.0625	0.0093	1.6	9	1	79.5	1.05E-04	6.25	6.25	NA	5.94E+04	5.94E+04	NC
Max	Ground	Truck Mount	Spot	A	0.0625	0.0039	1	10	1	79.5	3.07E-05	6.25	6.25	NA	2.04E+05	2.04E+05	NC
Max	Ground	Truck Mount	Spot	M/L	0.0625	0.00896	1	8	1	79.5	5.64E-05	6.25	6.25	NA	1.11E+05	1.11E+05	NC
Max	Ground	Truck Mount	Spot	A/M/L	0.0625	0.01286	1	10	1	79.5	1.01E-04	6.25	6.25	NA	6.18E+04	6.18E+04	NC
Max	Ground	Truck Mount	B/B	A	0.0625	0.00034	2.25	8	1	79.5	4.81E-06	6.25	6.25	NA	1.30E+06	1.30E+06	NC
Max	Ground	Truck Mount	B/B	M/L	0.0625	0.00896	2.25	6	1	79.5	9.51E-05	6.25	6.25	NA	6.57E+04	6.57E+04	NC
Max	Ground	Truck Mount	B/B	A/M/L	0.0625	0.0093	2.25	8	1	79.5	1.32E-04	6.25	6.25	NA	4.75E+04	4.75E+04	NC

NA/NC - Not Available/Not calculated. According to USEPA, ow toxicity, use pattern, application method/rate do not indicate a need for risk assessment via inhalation.
Typical application rate for rangeland and public domain forest land is 0.0469 lb a.i./acre; since the typical rate for other programs is higher and does not show potential risk, the higher rate is used.

Calculation: Aggregrate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

					Margin of Exposure (MOE) Dermal Exposure (unitless)			Margin of Exposure (MOE) Inhalation Exposure (unitless)			Target MOE (TM)		Aggregate Index (ARI) [1/(TMderm/MOEderm) + (TMinh/MOEinh)]		
Scenario	Application Type	Application Vehicle	Application Method	Receptor	Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Aerial	Plane	FW	P	9.35E+03	9.35E+03	NC	1.17E+05	1.17E+05	NC	100	100	8.66E+01	8.66E+01	NC
Typical	Aerial	Plane	FW	M/L	9.06E+02	9.06E+02	NC	8.87E+02	8.87E+02	NC	100	100	4.48E+00	4.48E+00	NC
Typical	Aerial	Helicopter	Rotary	P	2.34E+04	2.34E+04	NC	2.92E+05	2.92E+05	NC	100	100	2.17E+02	2.17E+02	NC
Typical	Aerial	Helicopter	Rotary	M/L	2.27E+03	2.27E+03	NC	2.22E+03	2.22E+03	NC	100	100	1.12E+01	1.12E+01	NC
Typical	Ground	Human	Bpack	A/M/L	9.44E+03	9.44E+03	NC	5.14E+06	5.14E+06	NC	100	100	9.42E+01	9.42E+01	NC
Typical	Ground	Human	Hback	A/M/L	1.26E+03	1.26E+03	NC	6.85E+05	6.85E+05	NC	100	100	1.26E+01	1.26E+01	NC
Typical	Ground	ATV/UTV	Spot	A	2.88E+04	2.88E+04	NC	1.63E+06	1.63E+06	NC	100	100	2.83E+02	2.83E+02	NC
Typical	Ground	ATV/UTV	Spot	M/L	1.21E+06	1.21E+06	NC	1.18E+06	1.18E+06	NC	100	100	5.98E+03	5.98E+03	NC
Typical	Ground	ATV/UTV	Spot	A/M/L	2.77E+04	2.77E+04	NC	4.95E+05	4.95E+05	NC	100	100	2.62E+02	2.62E+02	NC
Typical	Ground	ATV/UTV	B/B	A	7.26E+05	7.26E+05	NC	5.85E+06	5.85E+06	NC	100	100	6.46E+03	6.46E+03	NC
Typical	Ground	ATV/UTV	B/B	M/L	3.78E+05	3.78E+05	NC	3.70E+05	3.70E+05	NC	100	100	1.87E+03	1.87E+03	NC
Typical	Ground	ATV/UTV	B/B	A/M/L	1.73E+05	1.73E+05	NC	2.14E+05	2.14E+05	NC	100	100	9.55E+02	9.55E+02	NC
Typical	Ground	Truck Mount	Spot	A	1.58E+04	1.58E+04	NC	8.94E+05	8.94E+05	NC	100	100	1.55E+02	1.55E+02	NC
Typical	Ground	Truck Mount	Spot	M/L	5.96E+05	5.96E+05	NC	5.84E+05	5.84E+05	NC	100	100	2.95E+03	2.95E+03	NC
Typical	Ground	Truck Mount	Spot	A/M/L	1.52E+04	1.52E+04	NC	2.71E+05	2.71E+05	NC	100	100	1.44E+02	1.44E+02	NC
Typical	Ground	Truck Mount	B/B	A	3.87E+05	3.87E+05	NC	3.12E+06	3.12E+06	NC	100	100	3.44E+03	3.44E+03	NC
Typical	Ground	Truck Mount	B/B	M/L	2.01E+05	2.01E+05	NC	1.97E+05	1.97E+05	NC	100	100	9.96E+02	9.96E+02	NC
Typical	Ground	Truck Mount	B/B	A/M/L	9.21E+04	9.21E+04	NC	1.14E+05	1.14E+05	NC	100	100	5.09E+02	5.09E+02	NC
Max	Aerial	Plane	FW	P	3.12E+03	3.12E+03	NC	3.90E+04	3.90E+04	NC	100	100	2.89E+01	2.89E+01	NC
Max	Aerial	Plane	FW	M/L	3.02E+02	3.02E+02	NC	2.96E+02	2.96E+02	NC	100	100	1.49E+00	1.49E+00	NC
Max	Aerial	Helicopter	Rotary	P	7.79E+03	7.79E+03	NC	9.74E+04	9.74E+04	NC	100	100	7.22E+01	7.22E+01	NC
Max	Aerial	Helicopter	Rotary	M/L	7.55E+02	7.55E+02	NC	7.39E+02	7.39E+02	NC	100	100	3.74E+00	3.74E+00	NC
Max	Ground	Human	Bpack	A/M/L	2.36E+03	2.36E+03	NC	1.28E+06	1.28E+06	NC	100	100	2.35E+01	2.35E+01	NC
Max	Ground	Human	Hback	A/M/L	7.08E+02	7.08E+02	NC	3.85E+05	3.85E+05	NC	100	100	7.06E+00	7.06E+00	NC
Max	Ground	ATV/UTV	Spot	A	7.99E+03	7.99E+03	NC	4.53E+05	4.53E+05	NC	100	100	7.86E+01	7.86E+01	NC
Max	Ground	ATV/UTV	Spot	M/L	3.02E+05	3.02E+05	NC	2.96E+05	2.96E+05	NC	100	100	1.49E+03	1.49E+03	NC
Max	Ground	ATV/UTV	Spot	A/M/L	7.69E+03	7.69E+03	NC	1.37E+05	1.37E+05	NC	100	100	7.28E+01	7.28E+01	NC
Max	Ground	ATV/UTV	B/B	A	2.02E+05	2.02E+05	NC	1.62E+06	1.62E+06	NC	100	100	1.79E+03	1.79E+03	NC
Max	Ground	ATV/UTV	B/B	M/L	1.13E+05	1.13E+05	NC	1.11E+05	1.11E+05	NC	100	100	5.60E+02	5.60E+02	NC
Max	Ground	ATV/UTV	B/B	A/M/L	4.80E+04	4.80E+04	NC	5.94E+04	5.94E+04	NC	100	100	2.65E+02	2.65E+02	NC
Max	Ground	Truck Mount	Spot	A	3.60E+03	3.60E+03	NC	2.04E+05	2.04E+05	NC	100	100	3.53E+01	3.53E+01	NC
Max	Ground	Truck Mount	Spot	M/L	1.13E+05	1.13E+05	NC	1.11E+05	1.11E+05	NC	100	100	5.60E+02	5.60E+02	NC
Max	Ground	Truck Mount	Spot	A/M/L	3.46E+03	3.46E+03	NC	6.18E+04	6.18E+04	NC	100	100	3.28E+01	3.28E+01	NC
Max	Ground	Truck Mount	B/B	A	1.61E+05	1.61E+05	NC	1.30E+06	1.30E+06	NC	100	100	1.44E+03	1.44E+03	NC
Max	Ground	Truck Mount	B/B	M/L	6.71E+04	6.71E+04	NC	6.57E+04	6.57E+04	NC	100	100	3.32E+02	3.32E+02	NC
Max	Ground	Truck Mount	B/B	A/M/L	3.84E+04	3.84E+04	NC	4.75E+04	4.75E+04	NC	100	100	2.12E+02	2.12E+02	NC

NC - Not calculated. Based on toxicity assessment, dermal and inhalation exposures are not of concern.

Calculation: Potential Doses and Margins of Exposure
Scenario: Occupational Receptors (all) - Accidental Exposure (Spill)
Pathway: Dermal Contact with Herbicide
Herbicide: Rimsulfuron
Program: Rangeland, Public-domain Forestland, Energy and Mineral Sites, Rights-of-way, and Recreation and Cultural Sites

Scenario	Amount Spilled (S) (a) (L/day)	Concentration in Spill (Cs) (mg a.i./L)		Dermal Abs. Factor (DAF)	Body Weight (BW) (kg)	Surface Area Ratio (SAR) (b)	Dermal Dose [(S x Cs x SAR x DAF)/BW] (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	Margin of Exposure (MOE) (unitless)	Target MOE (TM) (unitless)	Aggregate Risk Index (ARI) [1/(TM/MOE)] (unitless)
Mixed Solution (maximum application rate)	0.5	1,500	(c)	0.17	79.5	44%	0.71	6.25	8.857	100	**8.86E-02**
Mixed Solution (typical application rate)	0.5	1,126	(d)	0.17	79.5	44%	0.53	6.25	11.803	100	**1.18E-01**

(a) - It is assumed that the amount spilled is 0.5 liters.
(b) - It is assumed that 80% of the spill lands on clothing with a 30% penetration rate through the clothing, and that 20% lands on bare skin. Therefore, the percentage of exposed skin equals 44%: (80% spilled to clothing * 30% penetration rate) + 20% spilled to bare skin.
(c) - See Table 4-6.
(d) - See Table 4-7.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	1.72E+04
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	1.66E-04	7.17E+01	1.19E-03	2.50E+01	2.10E+04
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	3.89E-04	7.17E+01	2.79E-03	2.50E+01	8.97E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	2.13E-05	7.17E+01	1.53E-04	2.50E+01	1.64E+05
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	5.04E-05	7.17E+01	3.61E-04	2.50E+01	6.92E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	7.95E-05	7.17E+01	5.70E-04	2.50E+01	4.38E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	2.03E-04	1.87E+02	3.78E-03	2.50E+01	6.61E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	1.66E-04	1.87E+02	3.09E-03	2.50E+01	8.08E+03
Typical	Aerial	Forested	Plane	Berry - child	1.00E-01	3.89E-04	1.87E+02	7.25E-03	2.50E+01	3.45E+03
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E-01	2.13E-05	1.87E+02	3.97E-04	2.50E+01	6.29E+04
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	5.04E-05	1.87E+02	9.41E-04	2.50E+01	2.66E+04
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	7.95E-05	1.87E+02	1.48E-03	2.50E+01	1.68E+04
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	2.50E+01	2.97E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	2.50E+01	3.71E+03
Max	Aerial	Forested	Plane	Berry - child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	2.50E+01	1.70E+03
Max	Aerial	Forested	Helicopter	Berry - child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	2.50E+01	3.32E+04
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	2.50E+01	1.33E+04
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	2.50E+01	8.42E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	2.03E-04	7.17E+01	1.45E-03	2.50E+01	1.72E+04
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	1.66E-04	7.17E+01	1.19E-03	2.50E+01	2.10E+04
Typical	Aerial	Forested	Plane	Berry - adult	1.00E-01	3.89E-04	7.17E+01	2.79E-03	2.50E+01	8.97E+03
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	2.13E-05	7.17E+01	1.53E-04	2.50E+01	1.64E+05
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	5.04E-05	7.17E+01	3.61E-04	2.50E+01	6.92E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	7.95E-05	7.17E+01	5.70E-04	2.50E+01	4.38E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Max	Aerial	Forested	Plane	Berry - adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	1.72E+04
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	1.66E-04	7.17E+01	1.19E-03	2.50E+01	2.10E+04
Typical	Aerial	Forested	Plane	Angler	1.00E-01	3.89E-04	7.17E+01	2.79E-03	2.50E+01	8.97E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E-01	2.13E-05	7.17E+01	1.53E-04	2.50E+01	1.64E+05
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	5.04E-05	7.17E+01	3.61E-04	2.50E+01	6.92E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	7.95E-05	7.17E+01	5.70E-04	2.50E+01	4.38E+04
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Max	Aerial	Forested	Plane	Angler	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Max	Aerial	Forested	Helicopter	Angler	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	2.03E-04	1.87E+02	3.78E-03	2.50E+01	6.61E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	1.66E-04	1.87E+02	3.09E-03	2.50E+01	8.08E+03
Typical	Aerial	Forested	Plane	Res-child	1.00E-01	3.89E-04	1.87E+02	7.25E-03	2.50E+01	3.45E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-01	2.13E-05	1.87E+02	3.97E-04	2.50E+01	6.29E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	5.04E-05	1.87E+02	9.41E-04	2.50E+01	2.66E+04
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	7.95E-05	1.87E+02	1.48E-03	2.50E+01	1.68E+04
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	2.50E+01	2.97E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	2.50E+01	3.71E+03
Max	Aerial	Forested	Plane	Res-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	2.50E+01	1.70E+03
Max	Aerial	Forested	Helicopter	Res-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	2.50E+01	3.32E+04
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	2.50E+01	1.33E+04
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	2.50E+01	8.42E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	2.03E-04	7.17E+01	1.45E-03	2.50E+01	1.72E+04
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	1.66E-04	7.17E+01	1.19E-03	2.50E+01	2.10E+04
Typical	Aerial	Forested	Plane	Res-adult	1.00E-01	3.89E-04	7.17E+01	2.79E-03	2.50E+01	8.97E+03
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-01	2.13E-05	7.17E+01	1.53E-04	2.50E+01	1.64E+05
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	5.04E-05	7.17E+01	3.61E-04	2.50E+01	6.92E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	7.95E-05	7.17E+01	5.70E-04	2.50E+01	4.38E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Max	Aerial	Forested	Plane	Res-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	6.61E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	1.66E-04	1.87E+02	3.09E-03	2.50E+01	8.08E+03
Typical	Aerial	Forested	Plane	N.A.-child	1.00E-01	3.89E-04	1.87E+02	7.25E-03	2.50E+01	3.45E+03
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	2.13E-05	1.87E+02	3.97E-04	2.50E+01	6.29E+04
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	5.04E-05	1.87E+02	9.41E-04	2.50E+01	2.66E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	7.95E-05	1.87E+02	1.48E-03	2.50E+01	1.68E+04
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	2.50E+01	2.97E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	2.50E+01	3.71E+03
Max	Aerial	Forested	Plane	N.A.-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	2.50E+01	1.70E+03
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	2.50E+01	3.32E+04
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	2.50E+01	1.33E+04
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	2.50E+01	8.42E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	2.03E-04	7.17E+01	1.45E-03	2.50E+01	1.72E+04
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	1.66E-04	7.17E+01	1.19E-03	2.50E+01	2.10E+04
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E-01	3.89E-04	7.17E+01	2.79E-03	2.50E+01	8.97E+03
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	2.13E-05	7.17E+01	1.53E-04	2.50E+01	1.64E+05
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	5.04E-05	7.17E+01	3.61E-04	2.50E+01	6.92E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	7.95E-05	7.17E+01	5.70E-04	2.50E+01	4.38E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Max	Aerial	Forested	Plane	N.A.-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+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, Short-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)	Short-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	2.50E+01	2.45E+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	2.50E+01	3.00E+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	2.50E+01	1.28E+05
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.50E-01	1.00E-01	2.13E-05	5.32E-06	2.01E+01	1.07E-05	2.50E+01	2.33E+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	2.50E+01	9.86E+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	2.50E+01	6.25E+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	2.50E+01	1.10E+05
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	2.50E+01	1.38E+05
Max	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	2.50E+01	6.29E+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	2.50E+01	1.23E+06
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	2.50E+01	4.93E+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	2.50E+01	3.12E+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	2.50E+01	8.15E+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	2.50E+01	9.97E+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	2.50E+01	4.25E+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	2.50E+01	7.77E+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	2.50E+01	3.28E+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	2.50E+01	2.08E+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	2.50E+01	3.67E+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	2.50E+01	4.58E+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	2.50E+01	2.09E+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	2.50E+01	4.10E+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	2.50E+01	1.64E+05
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	2.50E+01	1.04E+05
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	2.50E+01	1.43E+05
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	2.50E+01	1.74E+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	2.50E+01	7.44E+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	2.50E+01	1.36E+06
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	2.50E+01	5.74E+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	2.50E+01	3.64E+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	2.50E+01	6.42E+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	2.50E+01	8.02E+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	2.50E+01	3.66E+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	2.50E+01	7.17E+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	2.50E+01	2.87E+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	2.50E+01	1.82E+05

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	2.45E+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	2.50E+01	3.00E+05
Typical	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	3.89E-04	9.72E-05	2.01E+01	1.96E-04	2.50E+01	1.28E+05
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	2.13E-05	5.32E-06	2.01E+01	1.07E-05	2.50E+01	2.33E+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	2.50E+01	9.86E+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	2.50E+01	6.25E+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	2.50E+01	1.10E+05
Max	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	2.50E+01	1.38E+05
Max	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	2.50E+01	6.29E+04
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	2.50E+01	1.23E+06
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	2.50E+01	4.93E+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	2.50E+01	3.12E+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	2.50E+01	2.08E+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	2.50E+01	2.54E+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	2.50E+01	1.08E+04
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-02	1.00E-01	2.13E-05	2.13E-07	5.94E+03	1.26E-04	2.50E+01	1.98E+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	2.50E+01	8.35E+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	2.50E+01	5.29E+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	2.50E+01	9.35E+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	2.50E+01	1.17E+04
Max	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	7.90E-04	7.90E-06	5.94E+03	4.69E-03	2.50E+01	5.33E+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	2.50E+01	1.04E+05
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	2.50E+01	4.18E+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	2.50E+01	2.65E+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	2.50E+01	3.63E+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	2.50E+01	4.44E+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	2.50E+01	1.89E+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	2.50E+01	3.46E+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	2.50E+01	1.46E+05
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	2.50E+01	9.26E+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	2.50E+01	1.63E+04
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	2.50E+01	2.04E+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	2.50E+01	9.32E+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	2.50E+01	1.83E+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	2.50E+01	7.30E+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	2.50E+01	4.63E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	6.79E+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	2.50E+01	8.31E+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	2.50E+01	3.54E+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	2.50E+01	6.47E+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	2.50E+01	2.73E+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	2.50E+01	1.73E+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	2.50E+01	3.06E+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	2.50E+01	3.82E+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	2.50E+01	1.74E+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	2.50E+01	3.42E+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	2.50E+01	1.37E+05
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	2.50E+01	8.66E+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	2.50E+01	1.19E+05
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	2.50E+01	1.45E+05
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	2.50E+01	6.20E+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	2.50E+01	1.13E+06
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	2.50E+01	4.78E+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	2.50E+01	3.03E+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	2.50E+01	5.35E+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	2.50E+01	6.68E+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	2.50E+01	3.05E+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	2.50E+01	5.97E+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	2.50E+01	2.39E+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	2.50E+01	1.51E+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 and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	7.27E-02	1.00E-03	4.40E+02	9.39E-07	2.50E+01	2.66E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	7.23E-02	1.00E-03	4.40E+02	9.33E-07	2.50E+01	2.68E+07
Typical	Aerial	Forested	Plane	Swimmer-child	2.93E-05	7.52E-02	1.00E-03	4.40E+02	9.70E-07	2.50E+01	2.58E+07
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	7.05E-02	1.00E-03	4.40E+02	9.09E-07	2.50E+01	2.75E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	7.08E-02	1.00E-03	4.40E+02	9.14E-07	2.50E+01	2.73E+07
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	7.13E-02	1.00E-03	4.40E+02	9.20E-07	2.50E+01	2.72E+07
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.46E-01	1.00E-03	4.40E+02	1.88E-06	2.50E+01	1.33E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	1.45E-01	1.00E-03	4.40E+02	1.87E-06	2.50E+01	1.34E+07
Max	Aerial	Forested	Plane	Swimmer-child	2.93E-05	1.50E-01	1.00E-03	4.40E+02	1.94E-06	2.50E+01	1.29E+07
Max	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	1.41E-01	1.00E-03	4.40E+02	1.82E-06	2.50E+01	1.37E+07
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	1.42E-01	1.00E-03	4.40E+02	1.83E-06	2.50E+01	1.37E+07
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	1.61E-01	1.00E-03	4.40E+02	2.08E-06	2.50E+01	1.20E+07
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	7.27E-02	1.00E-03	2.26E+02	4.83E-07	2.50E+01	5.18E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	7.23E-02	1.00E-03	2.26E+02	4.80E-07	2.50E+01	5.21E+07
Typical	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	7.52E-02	1.00E-03	2.26E+02	4.99E-07	2.50E+01	5.01E+07
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	7.05E-02	1.00E-03	2.26E+02	4.68E-07	2.50E+01	5.34E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	7.08E-02	1.00E-03	2.26E+02	4.71E-07	2.50E+01	5.31E+07
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	7.13E-02	1.00E-03	2.26E+02	4.73E-07	2.50E+01	5.28E+07
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.46E-01	1.00E-03	2.26E+02	9.69E-07	2.50E+01	2.58E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	1.45E-01	1.00E-03	2.26E+02	9.62E-07	2.50E+01	2.60E+07
Max	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	1.50E-01	1.00E-03	2.26E+02	9.99E-07	2.50E+01	2.50E+07
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	1.41E-01	1.00E-03	2.26E+02	9.36E-07	2.50E+01	2.67E+07
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	1.42E-01	1.00E-03	2.26E+02	9.41E-07	2.50E+01	2.66E+07
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	1.61E-01	1.00E-03	2.26E+02	1.07E-06	2.50E+01	2.33E+07
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	7.27E-02	1.00E-03	1.14E+03	2.44E-06	2.50E+01	1.02E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	7.23E-02	1.00E-03	1.14E+03	2.43E-06	2.50E+01	1.03E+07
Typical	Aerial	Forested	Plane	N.American-child	2.93E-05	7.52E-02	1.00E-03	1.14E+03	2.52E-06	2.50E+01	9.91E+06
Typical	Aerial	Forested	Helicopter	N.American-child	2.93E-05	7.05E-02	1.00E-03	1.14E+03	2.36E-06	2.50E+01	1.06E+07
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	7.08E-02	1.00E-03	1.14E+03	2.38E-06	2.50E+01	1.05E+07
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	7.13E-02	1.00E-03	1.14E+03	2.39E-06	2.50E+01	1.05E+07
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.46E-01	1.00E-03	1.14E+03	4.90E-06	2.50E+01	5.11E+06
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	1.45E-01	1.00E-03	1.14E+03	4.86E-06	2.50E+01	5.14E+06
Max	Aerial	Forested	Plane	N.American-child	2.93E-05	1.50E-01	1.00E-03	1.14E+03	5.05E-06	2.50E+01	4.95E+06
Max	Aerial	Forested	Helicopter	N.American-child	2.93E-05	1.41E-01	1.00E-03	1.14E+03	4.73E-06	2.50E+01	5.29E+06
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	1.42E-01	1.00E-03	1.14E+03	4.75E-06	2.50E+01	5.26E+06
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	1.61E-01	1.00E-03	1.14E+03	5.41E-06	2.50E+01	4.62E+06

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	7.27E-02	1.00E-03	5.89E+02	1.26E-06	2.50E+01	1.99E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	7.23E-02	1.00E-03	5.89E+02	1.25E-06	2.50E+01	2.00E+07
Typical	Aerial	Forested	Plane	N.American-adult	2.93E-05	7.52E-02	1.00E-03	5.89E+02	1.30E-06	2.50E+01	1.93E+07
Typical	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	7.05E-02	1.00E-03	5.89E+02	1.22E-06	2.50E+01	2.05E+07
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	7.08E-02	1.00E-03	5.89E+02	1.22E-06	2.50E+01	2.04E+07
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	7.13E-02	1.00E-03	5.89E+02	1.23E-06	2.50E+01	2.03E+07
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.46E-01	1.00E-03	5.89E+02	2.52E-06	2.50E+01	9.92E+06
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	1.45E-01	1.00E-03	5.89E+02	2.50E-06	2.50E+01	9.99E+06
Max	Aerial	Forested	Plane	N.American-adult	2.93E-05	1.50E-01	1.00E-03	5.89E+02	2.60E-06	2.50E+01	9.62E+06
Max	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	1.41E-01	1.00E-03	5.89E+02	2.43E-06	2.50E+01	1.03E+07
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	1.42E-01	1.00E-03	5.89E+02	2.45E-06	2.50E+01	1.02E+07
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	1.61E-01	1.00E-03	5.89E+02	2.79E-06	2.50E+01	8.98E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Short-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	7.27E-02	8.00E-03	5.82E-04	2.50E+01	4.30E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	7.23E-02	8.00E-03	5.78E-04	2.50E+01	4.32E+04
Typical	Aerial	Forested	Plane	Swimmer-child	7.52E-02	8.00E-03	6.01E-04	2.50E+01	4.16E+04
Typical	Aerial	Forested	Helicopter	Swimmer-child	7.05E-02	8.00E-03	5.64E-04	2.50E+01	4.44E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-child	7.08E-02	8.00E-03	5.67E-04	2.50E+01	4.41E+04
Typical	Ground	Not applicable	High Boom	Swimmer-child	7.13E-02	8.00E-03	5.70E-04	2.50E+01	4.39E+04
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.46E-01	8.00E-03	1.17E-03	2.50E+01	2.14E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.45E-01	8.00E-03	1.16E-03	2.50E+01	2.16E+04
Max	Aerial	Forested	Plane	Swimmer-child	1.50E-01	8.00E-03	1.20E-03	2.50E+01	2.08E+04
Max	Aerial	Forested	Helicopter	Swimmer-child	1.41E-01	8.00E-03	1.13E-03	2.50E+01	2.22E+04
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.42E-01	8.00E-03	1.13E-03	2.50E+01	2.21E+04
Max	Ground	Not applicable	High Boom	Swimmer-child	1.61E-01	8.00E-03	1.29E-03	2.50E+01	1.94E+04
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	7.27E-02	8.93E-04	6.49E-05	2.50E+01	3.85E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	7.23E-02	8.93E-04	6.46E-05	2.50E+01	3.87E+05
Typical	Aerial	Forested	Plane	Swimmer-adult	7.52E-02	8.93E-04	6.71E-05	2.50E+01	3.72E+05
Typical	Aerial	Forested	Helicopter	Swimmer-adult	7.05E-02	8.93E-04	6.29E-05	2.50E+01	3.97E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	7.08E-02	8.93E-04	6.33E-05	2.50E+01	3.95E+05
Typical	Ground	Not applicable	High Boom	Swimmer-adult	7.13E-02	8.93E-04	6.36E-05	2.50E+01	3.93E+05
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.46E-01	8.93E-04	1.30E-04	2.50E+01	1.92E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.45E-01	8.93E-04	1.29E-04	2.50E+01	1.93E+05
Max	Aerial	Forested	Plane	Swimmer-adult	1.50E-01	8.93E-04	1.34E-04	2.50E+01	1.86E+05
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.41E-01	8.93E-04	1.26E-04	2.50E+01	1.99E+05
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.42E-01	8.93E-04	1.27E-04	2.50E+01	1.98E+05
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.61E-01	8.93E-04	1.44E-04	2.50E+01	1.74E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	7.27E-02	2.52E-02	1.83E-03	2.50E-02	7.3%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	7.23E-02	2.52E-02	1.82E-03	2.50E-02	7.3%
Typical	Aerial	Forested	Plane	Hiker/Hunter	7.52E-02	2.52E-02	1.89E-03	2.50E-02	7.6%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	7.05E-02	2.52E-02	1.77E-03	2.50E-02	7.1%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	7.08E-02	2.52E-02	1.78E-03	2.50E-02	7.1%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	7.13E-02	2.52E-02	1.79E-03	2.50E-02	7.2%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.46E-01	2.52E-02	3.67E-03	2.50E-02	15%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.45E-01	2.52E-02	3.64E-03	2.50E-02	15%
Max	Aerial	Forested	Plane	Hiker/Hunter	1.50E-01	2.52E-02	3.78E-03	2.50E-02	15%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.41E-01	2.52E-02	3.54E-03	2.50E-02	14%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.42E-01	2.52E-02	3.56E-03	2.50E-02	14%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.61E-01	2.52E-02	4.06E-03	2.50E-02	16%
Typical	Aerial	Non-Forested	Plane	Berry - child	7.27E-02	6.67E-02	4.85E-03	2.50E-02	19%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	7.23E-02	6.67E-02	4.82E-03	2.50E-02	19%
Typical	Aerial	Forested	Plane	Berry - child	7.52E-02	6.67E-02	5.01E-03	2.50E-02	20%
Typical	Aerial	Forested	Helicopter	Berry - child	7.05E-02	6.67E-02	4.70E-03	2.50E-02	19%
Typical	Ground	Not applicable	Low Boom	Berry - child	7.08E-02	6.67E-02	4.72E-03	2.50E-02	19%
Typical	Ground	Not applicable	High Boom	Berry - child	7.13E-02	6.67E-02	4.75E-03	2.50E-02	19%
Max	Aerial	Non-Forested	Plane	Berry - child	1.46E-01	6.67E-02	9.73E-03	2.50E-02	39%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.45E-01	6.67E-02	9.66E-03	2.50E-02	39%
Max	Aerial	Forested	Plane	Berry - child	1.50E-01	6.67E-02	1.00E-02	2.50E-02	40%
Max	Aerial	Forested	Helicopter	Berry - child	1.41E-01	6.67E-02	9.39E-03	2.50E-02	38%
Max	Ground	Not applicable	Low Boom	Berry - child	1.42E-01	6.67E-02	9.45E-03	2.50E-02	38%
Max	Ground	Not applicable	High Boom	Berry - child	1.61E-01	6.67E-02	1.08E-02	2.50E-02	43%
Typical	Aerial	Non-Forested	Plane	Berry - adult	7.27E-02	2.52E-02	1.83E-03	2.50E-02	7.3%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	7.23E-02	2.52E-02	1.82E-03	2.50E-02	7.3%
Typical	Aerial	Forested	Plane	Berry - adult	7.52E-02	2.52E-02	1.89E-03	2.50E-02	7.6%
Typical	Aerial	Forested	Helicopter	Berry - adult	7.05E-02	2.52E-02	1.77E-03	2.50E-02	7.1%
Typical	Ground	Not applicable	Low Boom	Berry - adult	7.08E-02	2.52E-02	1.78E-03	2.50E-02	7.1%
Typical	Ground	Not applicable	High Boom	Berry - adult	7.13E-02	2.52E-02	1.79E-03	2.50E-02	7.2%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.46E-01	2.52E-02	3.67E-03	2.50E-02	15%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.45E-01	2.52E-02	3.64E-03	2.50E-02	15%
Max	Aerial	Forested	Plane	Berry - adult	1.50E-01	2.52E-02	3.78E-03	2.50E-02	15%
Max	Aerial	Forested	Helicopter	Berry - adult	1.41E-01	2.52E-02	3.54E-03	2.50E-02	14%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.42E-01	2.52E-02	3.56E-03	2.50E-02	14%
Max	Ground	Not applicable	High Boom	Berry - adult	1.61E-01	2.52E-02	4.06E-03	2.50E-02	16%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	7.27E-02	2.52E-02	1.83E-03	2.50E-02	7.3%
Typical	Aerial	Non-Forested	Helicopter	Angler	7.23E-02	2.52E-02	1.82E-03	2.50E-02	7.3%
Typical	Aerial	Forested	Plane	Angler	7.52E-02	2.52E-02	1.89E-03	2.50E-02	7.6%
Typical	Aerial	Forested	Helicopter	Angler	7.05E-02	2.52E-02	1.77E-03	2.50E-02	7.1%
Typical	Ground	Not applicable	Low Boom	Angler	7.08E-02	2.52E-02	1.78E-03	2.50E-02	7.1%
Typical	Ground	Not applicable	High Boom	Angler	7.13E-02	2.52E-02	1.79E-03	2.50E-02	7.2%
Max	Aerial	Non-Forested	Plane	Angler	1.46E-01	2.52E-02	3.67E-03	2.50E-02	15%
Max	Aerial	Non-Forested	Helicopter	Angler	1.45E-01	2.52E-02	3.64E-03	2.50E-02	15%
Max	Aerial	Forested	Plane	Angler	1.50E-01	2.52E-02	3.78E-03	2.50E-02	15%
Max	Aerial	Forested	Helicopter	Angler	1.41E-01	2.52E-02	3.54E-03	2.50E-02	14%
Max	Ground	Not applicable	Low Boom	Angler	1.42E-01	2.52E-02	3.56E-03	2.50E-02	14%
Max	Ground	Not applicable	High Boom	Angler	1.61E-01	2.52E-02	4.06E-03	2.50E-02	16%
Typical	Aerial	Non-Forested	Plane	N.American - child	7.27E-02	3.33E-02	2.42E-03	2.50E-02	9.7%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	7.23E-02	3.33E-02	2.41E-03	2.50E-02	9.6%
Typical	Aerial	Forested	Plane	N.American - child	7.52E-02	3.33E-02	2.51E-03	2.50E-02	10%
Typical	Aerial	Forested	Helicopter	N.American - child	7.05E-02	3.33E-02	2.35E-03	2.50E-02	9.4%
Typical	Ground	Not applicable	Low Boom	N.American - child	7.08E-02	3.33E-02	2.36E-03	2.50E-02	9.4%
Typical	Ground	Not applicable	High Boom	N.American - child	7.13E-02	3.33E-02	2.38E-03	2.50E-02	9.5%
Max	Aerial	Non-Forested	Plane	N.American - child	1.46E-01	3.33E-02	4.86E-03	2.50E-02	19%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.45E-01	3.33E-02	4.83E-03	2.50E-02	19%
Max	Aerial	Forested	Plane	N.American - child	1.50E-01	3.33E-02	5.01E-03	2.50E-02	20%
Max	Aerial	Forested	Helicopter	N.American - child	1.41E-01	3.33E-02	4.70E-03	2.50E-02	19%
Max	Ground	Not applicable	Low Boom	N.American - child	1.42E-01	3.33E-02	4.72E-03	2.50E-02	19%
Max	Ground	Not applicable	High Boom	N.American - child	1.61E-01	3.33E-02	5.38E-03	2.50E-02	22%
Typical	Aerial	Non-Forested	Plane	N.American - adult	7.27E-02	1.26E-02	9.15E-04	2.50E-02	3.7%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	7.23E-02	1.26E-02	9.09E-04	2.50E-02	3.6%
Typical	Aerial	Forested	Plane	N.American - adult	7.52E-02	1.26E-02	9.45E-04	2.50E-02	3.8%
Typical	Aerial	Forested	Helicopter	N.American - adult	7.05E-02	1.26E-02	8.86E-04	2.50E-02	3.5%
Typical	Ground	Not applicable	Low Boom	N.American - adult	7.08E-02	1.26E-02	8.91E-04	2.50E-02	3.6%
Typical	Ground	Not applicable	High Boom	N.American - adult	7.13E-02	1.26E-02	8.96E-04	2.50E-02	3.6%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.46E-01	1.26E-02	1.84E-03	2.50E-02	7.3%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.45E-01	1.26E-02	1.82E-03	2.50E-02	7.3%
Max	Aerial	Forested	Plane	N.American - adult	1.50E-01	1.26E-02	1.89E-03	2.50E-02	7.6%
Max	Aerial	Forested	Helicopter	N.American - adult	1.41E-01	1.26E-02	1.77E-03	2.50E-02	7.1%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.42E-01	1.26E-02	1.78E-03	2.50E-02	7.1%
Max	Ground	Not applicable	High Boom	N.American - adult	1.61E-01	1.26E-02	2.03E-03	2.50E-02	8.1%

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, Short-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	Short-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)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	7.27E-02	1.00E+00	1.00E-06	7.67E+02	5.58E-05	2.50E-02	0.22%
Typical	Aerial	Non-Forested	Helicopter	Angler	7.23E-02	1.00E+00	1.00E-06	7.67E+02	5.55E-05	2.50E-02	0.22%
Typical	Aerial	Forested	Plane	Angler	7.52E-02	1.00E+00	1.00E-06	7.67E+02	5.77E-05	2.50E-02	0.23%
Typical	Aerial	Forested	Helicopter	Angler	7.05E-02	1.00E+00	1.00E-06	7.67E+02	5.41E-05	2.50E-02	0.22%
Typical	Ground	Not applicable	Low Boom	Angler	7.08E-02	1.00E+00	1.00E-06	7.67E+02	5.44E-05	2.50E-02	0.22%
Typical	Ground	Not applicable	High Boom	Angler	7.13E-02	1.00E+00	1.00E-06	7.67E+02	5.47E-05	2.50E-02	0.22%
Max	Aerial	Non-Forested	Plane	Angler	1.46E-01	1.00E+00	1.00E-06	7.67E+02	1.12E-04	2.50E-02	0.45%
Max	Aerial	Non-Forested	Helicopter	Angler	1.45E-01	1.00E+00	1.00E-06	7.67E+02	1.11E-04	2.50E-02	0.44%
Max	Aerial	Forested	Plane	Angler	1.50E-01	1.00E+00	1.00E-06	7.67E+02	1.15E-04	2.50E-02	0.46%
Max	Aerial	Forested	Helicopter	Angler	1.41E-01	1.00E+00	1.00E-06	7.67E+02	1.08E-04	2.50E-02	0.43%
Max	Ground	Not applicable	Low Boom	Angler	1.42E-01	1.00E+00	1.00E-06	7.67E+02	1.09E-04	2.50E-02	0.43%
Max	Ground	Not applicable	High Boom	Angler	1.61E-01	1.00E+00	1.00E-06	7.67E+02	1.24E-04	2.50E-02	0.50%
Typical	Aerial	Non-Forested	Plane	N.American - child	7.27E-02	1.00E+00	1.00E-06	1.11E+04	8.10E-04	2.50E-02	3.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	7.23E-02	1.00E+00	1.00E-06	1.11E+04	8.05E-04	2.50E-02	3.2%
Typical	Aerial	Forested	Plane	N.American - child	7.52E-02	1.00E+00	1.00E-06	1.11E+04	8.37E-04	2.50E-02	3.3%
Typical	Aerial	Forested	Helicopter	N.American - child	7.05E-02	1.00E+00	1.00E-06	1.11E+04	7.84E-04	2.50E-02	3.1%
Typical	Ground	Not applicable	Low Boom	N.American - child	7.08E-02	1.00E+00	1.00E-06	1.11E+04	7.89E-04	2.50E-02	3.2%
Typical	Ground	Not applicable	High Boom	N.American - child	7.13E-02	1.00E+00	1.00E-06	1.11E+04	7.93E-04	2.50E-02	3.2%
Max	Aerial	Non-Forested	Plane	N.American - child	1.46E-01	1.00E+00	1.00E-06	1.11E+04	1.62E-03	2.50E-02	6.5%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.45E-01	1.00E+00	1.00E-06	1.11E+04	1.61E-03	2.50E-02	6.5%
Max	Aerial	Forested	Plane	N.American - child	1.50E-01	1.00E+00	1.00E-06	1.11E+04	1.67E-03	2.50E-02	6.7%
Max	Aerial	Forested	Helicopter	N.American - child	1.41E-01	1.00E+00	1.00E-06	1.11E+04	1.57E-03	2.50E-02	6.3%
Max	Ground	Not applicable	Low Boom	N.American - child	1.42E-01	1.00E+00	1.00E-06	1.11E+04	1.58E-03	2.50E-02	6.3%
Max	Ground	Not applicable	High Boom	N.American - child	1.61E-01	1.00E+00	1.00E-06	1.11E+04	1.80E-03	2.50E-02	7.2%
Typical	Aerial	Non-Forested	Plane	N.American - adult	7.27E-02	1.00E+00	1.00E-06	1.11E+04	8.10E-04	2.50E-02	3.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	7.23E-02	1.00E+00	1.00E-06	1.11E+04	8.05E-04	2.50E-02	3.2%
Typical	Aerial	Forested	Plane	N.American - adult	7.52E-02	1.00E+00	1.00E-06	1.11E+04	8.37E-04	2.50E-02	3.3%
Typical	Aerial	Forested	Helicopter	N.American - adult	7.05E-02	1.00E+00	1.00E-06	1.11E+04	7.84E-04	2.50E-02	3.1%
Typical	Ground	Not applicable	Low Boom	N.American - adult	7.08E-02	1.00E+00	1.00E-06	1.11E+04	7.89E-04	2.50E-02	3.2%
Typical	Ground	Not applicable	High Boom	N.American - adult	7.13E-02	1.00E+00	1.00E-06	1.11E+04	7.93E-04	2.50E-02	3.2%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.46E-01	1.00E+00	1.00E-06	1.11E+04	1.62E-03	2.50E-02	6.5%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.45E-01	1.00E+00	1.00E-06	1.11E+04	1.61E-03	2.50E-02	6.5%
Max	Aerial	Forested	Plane	N.American - adult	1.50E-01	1.00E+00	1.00E-06	1.11E+04	1.67E-03	2.50E-02	6.7%
Max	Aerial	Forested	Helicopter	N.American - adult	1.41E-01	1.00E+00	1.00E-06	1.11E+04	1.57E-03	2.50E-02	6.3%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.42E-01	1.00E+00	1.00E-06	1.11E+04	1.58E-03	2.50E-02	6.3%
Max	Ground	Not applicable	High Boom	N.American - adult	1.61E-01	1.00E+00	1.00E-06	1.11E+04	1.80E-03	2.50E-02	7.2%

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, Short-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)	Acute 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	2.50E-02	3.24%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.66E-04	4.00E+00	6.63E-04	2.50E-02	2.65%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	3.89E-04	4.00E+00	1.55E-03	2.50E-02	6.2%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	2.13E-05	4.00E+00	8.51E-05	2.50E-02	0.340%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	2.50E-02	0.81%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	7.95E-05	4.00E+00	3.18E-04	2.50E-02	1.27%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	2.50E-02	7.2%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	2.50E-02	5.8%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	2.50E-02	12.6%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	2.50E-02	0.65%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	2.50E-02	1.61%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	2.50E-02	2.54%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	2.03E-04	4.03E+00	8.16E-04	2.50E-02	3.26%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.66E-04	4.03E+00	6.67E-04	2.50E-02	2.67%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	3.89E-04	4.03E+00	1.56E-03	2.50E-02	6.3%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	2.50E-02	0.343%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	2.50E-02	0.81%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	7.95E-05	4.03E+00	3.20E-04	2.50E-02	1.28%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	2.50E-02	7.2%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	2.50E-02	5.8%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	2.50E-02	12.7%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	2.50E-02	0.65%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	2.50E-02	1.62%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	2.50E-02	2.56%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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)	Acute 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	2.50E-02	3.24%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.66E-04	4.00E+00	6.63E-04	2.50E-02	2.65%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	3.89E-04	4.00E+00	1.55E-03	2.50E-02	6.2%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	2.13E-05	4.00E+00	8.51E-05	2.50E-02	0.340%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	2.50E-02	0.81%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	7.95E-05	4.00E+00	3.18E-04	2.50E-02	1.27%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	4.50E-04	4.00E+00	1.80E-03	2.50E-02	7.2%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	2.50E-02	5.8%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	2.50E-02	12.6%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	2.50E-02	0.65%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	2.50E-02	1.61%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	2.50E-02	2.54%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	2.03E-04	4.03E+00	8.16E-04	2.50E-02	3.26%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.66E-04	4.03E+00	6.67E-04	2.50E-02	2.67%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	3.89E-04	4.03E+00	1.56E-03	2.50E-02	6.3%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	2.50E-02	0.343%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	2.50E-02	0.81%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	7.95E-05	4.03E+00	3.20E-04	2.50E-02	1.28%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	2.50E-02	7.2%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	2.50E-02	5.8%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	2.50E-02	12.7%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	2.50E-02	0.65%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	2.50E-02	1.62%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	2.50E-02	2.56%

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, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	1.72E+04	2.45E+05	--	--	7.3%	--	--	7.39E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	2.10E+04	3.00E+05	--	--	7.3%	--	--	8.09E+00
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	8.97E+03	1.28E+05	--	--	7.6%	--	--	5.13E+00
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	1.64E+05	2.33E+06	--	--	7.1%	--	--	1.29E+01
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	6.92E+04	9.86E+05	--	--	7.1%	--	--	1.15E+01
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	4.38E+04	6.25E+05	--	--	7.2%	--	--	1.04E+01
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	7.74E+03	1.10E+05	--	--	15%	--	--	3.51E+00
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	9.67E+03	1.38E+05	--	--	15%	--	--	3.90E+00
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	4.42E+03	6.29E+04	--	--	15%	--	--	2.54E+00
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	8.65E+04	1.23E+06	--	--	14%	--	--	6.49E+00
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	3.46E+04	4.93E+05	--	--	14%	--	--	5.76E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	2.19E+04	3.12E+05	--	--	16%	--	--	4.74E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	6.61E+03	8.15E+04	--	--	19%	3.24%	--	2.56E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	8.08E+03	9.97E+04	--	--	19%	2.65%	--	2.83E+00
Typical	Aerial	Forested	Plane	Berry - child	1.00E+03	3.45E+03	4.25E+04	--	--	20%	6.2%	--	1.74E+00
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+03	6.29E+04	7.77E+05	--	--	19%	0.34%	--	4.80E+00
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	2.66E+04	3.28E+05	--	--	19%	0.81%	--	4.21E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	1.68E+04	2.08E+05	--	--	19%	1.27%	--	3.75E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	2.97E+03	3.67E+04	--	--	39%	7.2%	--	1.21E+00
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	3.71E+03	4.58E+04	--	--	39%	5.8%	--	1.36E+00
Max	Aerial	Forested	Plane	Berry - child	1.00E+03	1.70E+03	2.09E+04	--	--	40%	12.6%	--	**8.58E-01**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+03	3.32E+04	4.10E+05	--	--	38%	0.65%	--	2.41E+00
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	1.33E+04	1.64E+05	--	--	38%	1.61%	--	2.10E+00
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	8.42E+03	1.04E+05	--	--	43%	2.54%	--	1.71E+00
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	1.72E+04	1.43E+05	--	--	7.3%	3.26%	--	5.85E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	2.10E+04	1.74E+05	--	--	7.3%	2.67%	--	6.55E+00
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+03	8.97E+03	7.44E+04	--	--	7.6%	6.3%	--	3.80E+00
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	1.64E+05	1.36E+06	--	--	7.1%	0.34%	--	1.23E+01
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	6.92E+04	5.74E+05	--	--	7.1%	0.81%	--	1.05E+01
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	4.38E+04	3.64E+05	--	--	7.2%	1.28%	--	9.09E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	7.74E+03	6.42E+04	--	--	15%	7.2%	--	2.75E+00
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	9.67E+03	8.02E+04	--	--	15%	5.8%	--	3.13E+00
Max	Aerial	Forested	Plane	Berry - adult	1.00E+03	4.42E+03	3.66E+04	--	--	15%	12.7%	--	1.88E+00
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	8.65E+04	7.17E+05	--	--	14%	0.65%	--	6.20E+00
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	3.46E+04	2.87E+05	--	--	14%	1.62%	--	5.23E+00
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	2.19E+04	1.82E+05	--	--	16%	2.56%	--	4.18E+00

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	1.72E+04	2.45E+05	--	--	7.3%	--	0.22%	7.27E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	2.10E+04	3.00E+05	--	--	7.3%	--	0.22%	7.95E+00
Typical	Aerial	Forested	Plane	Angler	1.00E+03	8.97E+03	1.28E+05	--	--	7.6%	--	0.23%	5.07E+00
Typical	Aerial	Forested	Helicopter	Angler	1.00E+03	1.64E+05	2.33E+06	--	--	7.1%	--	0.22%	1.26E+01
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	6.92E+04	9.86E+05	--	--	7.1%	--	0.22%	1.12E+01
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	4.38E+04	6.25E+05	--	--	7.2%	--	0.22%	1.02E+01
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	7.74E+03	1.10E+05	--	--	15%	--	0.45%	3.45E+00
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	9.67E+03	1.38E+05	--	--	15%	--	0.44%	3.83E+00
Max	Aerial	Forested	Plane	Angler	1.00E+03	4.42E+03	6.29E+04	--	--	15%	--	0.46%	2.51E+00
Max	Aerial	Forested	Helicopter	Angler	1.00E+03	8.65E+04	1.23E+06	--	--	14%	--	0.43%	6.31E+00
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	3.46E+04	4.93E+05	--	--	14%	--	0.43%	5.62E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	2.19E+04	3.12E+05	--	--	16%	--	0.50%	4.63E+00
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	6.61E+03	2.08E+04	--	--	--	--	--	5.01E+00
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	8.08E+03	2.54E+04	--	--	--	--	--	6.13E+00
Typical	Aerial	Forested	Plane	Res-child	1.00E+03	3.45E+03	1.08E+04	--	--	--	--	--	2.61E+00
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+03	6.29E+04	1.98E+05	--	--	--	--	--	4.77E+01
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	2.66E+04	8.35E+04	--	--	--	--	--	2.02E+01
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	1.68E+04	5.29E+04	--	--	--	--	--	1.28E+01
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	2.97E+03	9.35E+03	--	--	--	--	--	2.26E+00
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	3.71E+03	1.17E+04	--	--	--	--	--	2.82E+00
Max	Aerial	Forested	Plane	Res-child	1.00E+03	1.70E+03	5.33E+03	--	--	--	--	--	1.29E+00
Max	Aerial	Forested	Helicopter	Res-child	1.00E+03	3.32E+04	1.04E+05	--	--	--	--	--	2.52E+01
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	1.33E+04	4.18E+04	--	--	--	--	--	1.01E+01
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	8.42E+03	2.65E+04	--	--	--	--	--	6.39E+00
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	1.72E+04	3.63E+04	--	--	--	--	--	1.17E+01
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	2.10E+04	4.44E+04	--	--	--	--	--	1.43E+01
Typical	Aerial	Forested	Plane	Res-adult	1.00E+03	8.97E+03	1.89E+04	--	--	--	--	--	6.09E+00
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+03	1.64E+05	3.46E+05	--	--	--	--	--	1.11E+02
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	6.92E+04	1.46E+05	--	--	--	--	--	4.69E+01
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	4.38E+04	9.26E+04	--	--	--	--	--	2.98E+01
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	7.74E+03	1.63E+04	--	--	--	--	--	5.26E+00
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	9.67E+03	2.04E+04	--	--	--	--	--	6.56E+00
Max	Aerial	Forested	Plane	Res-adult	1.00E+03	4.42E+03	9.32E+03	--	--	--	--	--	3.00E+00
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+03	8.65E+04	1.83E+05	--	--	--	--	--	5.87E+01
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	3.46E+04	7.30E+04	--	--	--	--	--	2.35E+01
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	2.19E+04	4.63E+04	--	--	--	--	--	1.49E+01

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	6.61E+03	6.79E+04	1.02E+07	--	9.7%	3.24%	3.2%	3.05E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	8.08E+03	8.31E+04	1.03E+07	--	9.6%	2.65%	3.2%	3.44E+00
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+03	3.45E+03	3.54E+04	9.91E+06	--	10%	6.2%	3.3%	1.94E+00
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	6.29E+04	6.47E+05	1.06E+07	--	9.4%	0.340%	3.1%	6.84E+00
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	2.66E+04	2.73E+05	1.05E+07	--	9.4%	0.81%	3.2%	5.70E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	1.68E+04	1.73E+05	1.05E+07	--	9.5%	1.27%	3.2%	4.89E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	2.97E+03	3.06E+04	5.11E+06	--	19%	7.2%	6.5%	1.43E+00
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	3.71E+03	3.82E+04	5.14E+06	--	19%	5.8%	6.5%	1.64E+00
Max	Aerial	Forested	Plane	N.A.-child	1.00E+03	1.70E+03	1.74E+04	4.95E+06	--	20%	12.6%	6.7%	**9.61E-01**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	3.32E+04	3.42E+05	5.29E+06	--	19%	0.65%	6.3%	3.45E+00
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	1.33E+04	1.37E+05	5.26E+06	--	19%	1.61%	6.3%	2.85E+00
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	8.42E+03	8.66E+04	4.62E+06	--	22%	2.54%	7.2%	2.26E+00
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	1.72E+04	1.19E+05	1.99E+07	--	3.7%	3.26%	3.2%	5.94E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	2.10E+04	1.45E+05	2.00E+07	--	3.6%	2.67%	3.2%	6.68E+00
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+03	8.97E+03	6.20E+04	1.93E+07	--	3.8%	6.3%	3.3%	3.82E+00
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	1.64E+05	1.13E+06	2.05E+07	--	3.5%	0.343%	3.1%	1.29E+01
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	6.92E+04	4.78E+05	2.04E+07	--	3.6%	0.81%	3.2%	1.09E+01
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	4.38E+04	3.03E+05	2.03E+07	--	3.6%	1.28%	3.2%	9.39E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	7.74E+03	5.35E+04	9.92E+06	--	7.3%	7.2%	6.5%	2.79E+00
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	9.67E+03	6.68E+04	9.99E+06	--	7.3%	5.8%	6.5%	3.18E+00
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+03	4.42E+03	3.05E+04	9.62E+06	--	7.6%	12.7%	6.7%	1.89E+00
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	8.65E+04	5.97E+05	1.03E+07	--	7.1%	0.65%	6.3%	6.52E+00
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	3.46E+04	2.39E+05	1.02E+07	--	7.1%	1.62%	6.3%	5.44E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	2.19E+04	1.51E+05	8.98E+06	--	8.1%	2.56%	7.2%	4.33E+00

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	2.66E+07	4.30E+04	--	--	--	4.29E+01
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	2.68E+07	4.32E+04	--	--	--	4.32E+01
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	2.58E+07	4.16E+04	--	--	--	4.15E+01
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	2.75E+07	4.44E+04	--	--	--	4.43E+01
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	2.73E+07	4.41E+04	--	--	--	4.40E+01
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	2.72E+07	4.39E+04	--	--	--	4.38E+01
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	1.33E+07	2.14E+04	--	--	--	2.14E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.34E+07	2.16E+04	--	--	--	2.15E+01
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	1.29E+07	2.08E+04	--	--	--	2.07E+01
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.37E+07	2.22E+04	--	--	--	2.21E+01
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	1.37E+07	2.21E+04	--	--	--	2.20E+01
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.20E+07	1.94E+04	--	--	--	1.93E+01
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	5.18E+07	3.85E+05	--	--	--	3.82E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	5.21E+07	3.87E+05	--	--	--	3.84E+02
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	5.01E+07	3.72E+05	--	--	--	3.70E+02
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	5.34E+07	3.97E+05	--	--	--	3.94E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	5.31E+07	3.95E+05	--	--	--	3.92E+02
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	5.28E+07	3.93E+05	--	--	--	3.90E+02
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.58E+07	1.92E+05	--	--	--	1.90E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.60E+07	1.93E+05	--	--	--	1.92E+02
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.50E+07	1.86E+05	--	--	--	1.85E+02
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.67E+07	1.99E+05	--	--	--	1.97E+02
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	2.66E+07	1.98E+05	--	--	--	1.96E+02
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	2.33E+07	1.74E+05	--	--	--	1.72E+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.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E-01	1.63E-03	7.17E+01	1.17E-02	2.50E+01	2.14E+03
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E-01	8.06E-05	7.17E+01	5.78E-04	2.50E+01	4.32E+04
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	2.50E+01	2.97E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	2.50E+01	3.71E+03
Typical	Aerial	Forested	Plane	Berry - child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	2.50E+01	1.70E+03
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	2.50E+01	3.32E+04
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	2.50E+01	1.33E+04
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	2.50E+01	8.42E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	2.50E+01	1.40E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	2.50E+01	1.73E+03
Max	Aerial	Forested	Plane	Berry - child	1.00E-01	1.63E-03	1.87E+02	3.04E-02	2.50E+01	**8.24E+02**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E-01	8.06E-05	1.87E+02	1.51E-03	2.50E+01	1.66E+04
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	2.50E+01	6.68E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	2.50E+01	4.21E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Aerial	Forested	Plane	Berry - adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Aerial	Forested	Plane	Berry - adult	1.00E-01	1.63E-03	7.17E+01	1.17E-02	2.50E+01	2.14E+03
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E-01	8.06E-05	7.17E+01	5.78E-04	2.50E+01	4.32E+04
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Aerial	Forested	Plane	Angler	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Aerial	Forested	Plane	Angler	1.00E-01	1.63E-03	7.17E+01	1.17E-02	2.50E+01	2.14E+03
Max	Aerial	Forested	Helicopter	Angler	1.00E-01	8.06E-05	7.17E+01	5.78E-04	2.50E+01	4.32E+04
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+04
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	2.50E+01	2.97E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	2.50E+01	3.71E+03
Typical	Aerial	Forested	Plane	Res-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	2.50E+01	1.70E+03
Typical	Aerial	Forested	Helicopter	Res-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	2.50E+01	3.32E+04
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	2.50E+01	1.33E+04
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	2.50E+01	8.42E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	2.50E+01	1.40E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	2.50E+01	1.73E+03
Max	Aerial	Forested	Plane	Res-child	1.00E-01	1.63E-03	1.87E+02	3.04E-02	2.50E+01	**8.24E+02**
Max	Aerial	Forested	Helicopter	Res-child	1.00E-01	8.06E-05	1.87E+02	1.51E-03	2.50E+01	1.66E+04
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	2.50E+01	6.68E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	2.50E+01	4.21E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Aerial	Forested	Plane	Res-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Aerial	Forested	Plane	Res-adult	1.00E-01	1.63E-03	7.17E+01	1.17E-02	2.50E+01	2.14E+03
Max	Aerial	Forested	Helicopter	Res-adult	1.00E-01	8.06E-05	7.17E+01	5.78E-04	2.50E+01	4.32E+04
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	2.97E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	2.50E+01	3.71E+03
Typical	Aerial	Forested	Plane	N.A.-child	1.00E-01	7.90E-04	1.87E+02	1.47E-02	2.50E+01	1.70E+03
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	4.03E-05	1.87E+02	7.53E-04	2.50E+01	3.32E+04
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	2.50E+01	1.33E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	2.50E+01	8.42E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	2.50E+01	1.40E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	2.50E+01	1.73E+03
Max	Aerial	Forested	Plane	N.A.-child	1.00E-01	1.63E-03	1.87E+02	3.04E-02	2.50E+01	**8.24E+02**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E-01	8.06E-05	1.87E+02	1.51E-03	2.50E+01	1.66E+04
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	2.50E+01	6.68E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	2.50E+01	4.21E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E-01	7.90E-04	7.17E+01	5.66E-03	2.50E+01	4.42E+03
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	4.03E-05	7.17E+01	2.89E-04	2.50E+01	8.65E+04
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Aerial	Forested	Plane	N.A.-adult	1.00E-01	1.63E-03	7.17E+01	1.17E-02	2.50E+01	2.14E+03
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E-01	8.06E-05	7.17E+01	5.78E-04	2.50E+01	4.32E+04
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+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, Short-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)	Short-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	2.50E+01	1.10E+05
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	2.50E+01	1.38E+05
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	2.50E+01	6.29E+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	2.50E+01	1.23E+06
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	2.50E+01	4.93E+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	2.50E+01	3.12E+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	2.50E+01	5.19E+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	2.50E+01	6.40E+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	2.50E+01	3.06E+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	2.50E+01	6.16E+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	2.50E+01	2.48E+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	2.50E+01	1.56E+05
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	2.50E+01	3.67E+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	2.50E+01	4.58E+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	2.50E+01	2.09E+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	2.50E+01	4.10E+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	2.50E+01	1.64E+05
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	2.50E+01	1.04E+05
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	2.50E+01	1.73E+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	2.50E+01	2.13E+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	2.50E+01	1.02E+04
Max	Aerial	Forested	Helicopter	Berry - child	2.50E-01	1.00E-01	8.06E-05	2.02E-05	6.05E+01	1.22E-04	2.50E+01	2.05E+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	2.50E+01	8.24E+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	2.50E+01	5.20E+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	2.50E+01	6.42E+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	2.50E+01	8.02E+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	2.50E+01	3.66E+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	2.50E+01	7.17E+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	2.50E+01	2.87E+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	2.50E+01	1.82E+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	2.50E+01	3.02E+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	2.50E+01	3.72E+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	2.50E+01	1.78E+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	2.50E+01	3.58E+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	2.50E+01	1.44E+05
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	2.50E+01	9.09E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	1.10E+05
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	2.50E+01	1.38E+05
Typical	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	7.90E-04	1.97E-04	2.01E+01	3.97E-04	2.50E+01	6.29E+04
Typical	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	4.03E-05	1.01E-05	2.01E+01	2.03E-05	2.50E+01	1.23E+06
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	2.50E+01	4.93E+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	2.50E+01	3.12E+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	2.50E+01	5.19E+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	2.50E+01	6.40E+04
Max	Aerial	Forested	Plane	Angler	2.50E-01	1.00E-01	1.63E-03	4.07E-04	2.01E+01	8.18E-04	2.50E+01	3.06E+04
Max	Aerial	Forested	Helicopter	Angler	2.50E-01	1.00E-01	8.06E-05	2.02E-05	2.01E+01	4.06E-05	2.50E+01	6.16E+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	2.50E+01	2.48E+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	2.50E+01	1.56E+05
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	2.50E+01	9.35E+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	2.50E+01	1.17E+04
Typical	Aerial	Forested	Plane	Res-child	1.00E-02	1.00E-01	7.90E-04	7.90E-06	5.94E+03	4.69E-03	2.50E+01	5.33E+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	2.50E+01	1.04E+05
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	2.50E+01	4.18E+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	2.50E+01	2.65E+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	2.50E+01	4.40E+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	2.50E+01	5.42E+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	2.50E+01	2.59E+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	2.50E+01	5.22E+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	2.50E+01	2.10E+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	2.50E+01	1.32E+04
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	2.50E+01	1.63E+04
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	2.50E+01	2.04E+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	2.50E+01	9.32E+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	2.50E+01	1.83E+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	2.50E+01	7.30E+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	2.50E+01	4.63E+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	2.50E+01	7.70E+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	2.50E+01	9.48E+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	2.50E+01	4.53E+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	2.50E+01	9.13E+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	2.50E+01	3.67E+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	2.50E+01	2.31E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	3.06E+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	2.50E+01	3.82E+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	2.50E+01	1.74E+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	2.50E+01	3.42E+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	2.50E+01	1.37E+05
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	2.50E+01	8.66E+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	2.50E+01	1.44E+04
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	2.50E+01	1.77E+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	2.50E+01	8.47E+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	2.50E+01	1.71E+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	2.50E+01	6.87E+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	2.50E+01	4.33E+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	2.50E+01	5.35E+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	2.50E+01	6.68E+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	2.50E+01	3.05E+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	2.50E+01	5.97E+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	2.50E+01	2.39E+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	2.50E+01	1.51E+05
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	2.50E+01	2.52E+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	2.50E+01	3.10E+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	2.50E+01	1.48E+04
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	2.50E+01	2.99E+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	2.50E+01	1.20E+05
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	2.50E+01	7.57E+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, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.40E-01	1.00E-03	4.40E+02	1.81E-06	2.50E+01	1.38E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	1.39E-01	1.00E-03	4.40E+02	1.80E-06	2.50E+01	1.39E+07
Typical	Aerial	Forested	Plane	Swimmer-child	2.93E-05	1.45E-01	1.00E-03	4.40E+02	1.87E-06	2.50E+01	1.34E+07
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	1.35E-01	1.00E-03	4.40E+02	1.74E-06	2.50E+01	1.43E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	1.36E-01	1.00E-03	4.40E+02	1.76E-06	2.50E+01	1.42E+07
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	1.37E-01	1.00E-03	4.40E+02	1.77E-06	2.50E+01	1.42E+07
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	2.81E-01	1.00E-03	4.40E+02	3.63E-06	2.50E+01	6.89E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	2.79E-01	1.00E-03	4.40E+02	3.60E-06	2.50E+01	6.94E+06
Max	Aerial	Forested	Plane	Swimmer-child	2.93E-05	2.90E-01	1.00E-03	4.40E+02	3.74E-06	2.50E+01	6.68E+06
Max	Aerial	Forested	Helicopter	Swimmer-child	2.93E-05	2.70E-01	1.00E-03	4.40E+02	3.49E-06	2.50E+01	7.16E+06
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	2.72E-01	1.00E-03	4.40E+02	3.51E-06	2.50E+01	7.12E+06
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	2.74E-01	1.00E-03	4.40E+02	3.53E-06	2.50E+01	7.08E+06
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.40E-01	1.00E-03	2.26E+02	9.31E-07	2.50E+01	2.68E+07
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	1.39E-01	1.00E-03	2.26E+02	9.24E-07	2.50E+01	2.70E+07
Typical	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	1.45E-01	1.00E-03	2.26E+02	9.61E-07	2.50E+01	2.60E+07
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	1.35E-01	1.00E-03	2.26E+02	8.98E-07	2.50E+01	2.78E+07
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	1.36E-01	1.00E-03	2.26E+02	9.03E-07	2.50E+01	2.77E+07
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	1.37E-01	1.00E-03	2.26E+02	9.09E-07	2.50E+01	2.75E+07
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	2.81E-01	1.00E-03	2.26E+02	1.87E-06	2.50E+01	1.34E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	2.79E-01	1.00E-03	2.26E+02	1.85E-06	2.50E+01	1.35E+07
Max	Aerial	Forested	Plane	Swimmer-adult	2.93E-05	2.90E-01	1.00E-03	2.26E+02	1.93E-06	2.50E+01	1.30E+07
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.93E-05	2.70E-01	1.00E-03	2.26E+02	1.80E-06	2.50E+01	1.39E+07
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	2.72E-01	1.00E-03	2.26E+02	1.81E-06	2.50E+01	1.38E+07
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	2.74E-01	1.00E-03	2.26E+02	1.82E-06	2.50E+01	1.38E+07
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.40E-01	1.00E-03	1.14E+03	4.71E-06	2.50E+01	5.31E+06
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	1.39E-01	1.00E-03	1.14E+03	4.67E-06	2.50E+01	5.35E+06
Typical	Aerial	Forested	Plane	N.American-child	2.93E-05	1.45E-01	1.00E-03	1.14E+03	4.86E-06	2.50E+01	5.15E+06
Typical	Aerial	Forested	Helicopter	N.American-child	2.93E-05	1.35E-01	1.00E-03	1.14E+03	4.54E-06	2.50E+01	5.51E+06
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	1.36E-01	1.00E-03	1.14E+03	4.56E-06	2.50E+01	5.48E+06
Typical	Ground	Not applicable	High Boom	N.American-child	2.93E-05	1.37E-01	1.00E-03	1.14E+03	4.59E-06	2.50E+01	5.45E+06
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	2.81E-01	1.00E-03	1.14E+03	9.44E-06	2.50E+01	2.65E+06
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	2.79E-01	1.00E-03	1.14E+03	9.37E-06	2.50E+01	2.67E+06
Max	Aerial	Forested	Plane	N.American-child	2.93E-05	2.90E-01	1.00E-03	1.14E+03	9.73E-06	2.50E+01	2.57E+06
Max	Aerial	Forested	Helicopter	N.American-child	2.93E-05	2.70E-01	1.00E-03	1.14E+03	9.07E-06	2.50E+01	2.76E+06
Max	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	2.72E-01	1.00E-03	1.14E+03	9.13E-06	2.50E+01	2.74E+06
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	2.74E-01	1.00E-03	1.14E+03	9.18E-06	2.50E+01	2.72E+06

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.40E-01	1.00E-03	5.89E+02	2.42E-06	2.50E+01	1.03E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	1.39E-01	1.00E-03	5.89E+02	2.40E-06	2.50E+01	1.04E+07
Typical	Aerial	Forested	Plane	N.American-adult	2.93E-05	1.45E-01	1.00E-03	5.89E+02	2.50E-06	2.50E+01	1.00E+07
Typical	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	1.35E-01	1.00E-03	5.89E+02	2.33E-06	2.50E+01	1.07E+07
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	1.36E-01	1.00E-03	5.89E+02	2.35E-06	2.50E+01	1.06E+07
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	1.37E-01	1.00E-03	5.89E+02	2.36E-06	2.50E+01	1.06E+07
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	2.81E-01	1.00E-03	5.89E+02	4.86E-06	2.50E+01	5.15E+06
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	2.79E-01	1.00E-03	5.89E+02	4.82E-06	2.50E+01	5.19E+06
Max	Aerial	Forested	Plane	N.American-adult	2.93E-05	2.90E-01	1.00E-03	5.89E+02	5.01E-06	2.50E+01	4.99E+06
Max	Aerial	Forested	Helicopter	N.American-adult	2.93E-05	2.70E-01	1.00E-03	5.89E+02	4.67E-06	2.50E+01	5.35E+06
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	2.72E-01	1.00E-03	5.89E+02	4.70E-06	2.50E+01	5.32E+06
Max	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	2.74E-01	1.00E-03	5.89E+02	4.73E-06	2.50E+01	5.29E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Short-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.40E-01	8.00E-03	1.12E-03	2.50E+01	2.23E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.39E-01	8.00E-03	1.11E-03	2.50E+01	2.25E+04
Typical	Aerial	Forested	Plane	Swimmer-child	1.45E-01	8.00E-03	1.16E-03	2.50E+01	2.16E+04
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.35E-01	8.00E-03	1.08E-03	2.50E+01	2.31E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.36E-01	8.00E-03	1.09E-03	2.50E+01	2.30E+04
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.37E-01	8.00E-03	1.09E-03	2.50E+01	2.28E+04
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.81E-01	8.00E-03	2.25E-03	2.50E+01	1.11E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.79E-01	8.00E-03	2.23E-03	2.50E+01	1.12E+04
Max	Aerial	Forested	Plane	Swimmer-child	2.90E-01	8.00E-03	2.32E-03	2.50E+01	1.08E+04
Max	Aerial	Forested	Helicopter	Swimmer-child	2.70E-01	8.00E-03	2.16E-03	2.50E+01	1.16E+04
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.72E-01	8.00E-03	2.18E-03	2.50E+01	1.15E+04
Max	Ground	Not applicable	High Boom	Swimmer-child	2.74E-01	8.00E-03	2.19E-03	2.50E+01	1.14E+04
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.40E-01	8.93E-04	1.25E-04	2.50E+01	2.00E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.39E-01	8.93E-04	1.24E-04	2.50E+01	2.01E+05
Typical	Aerial	Forested	Plane	Swimmer-adult	1.45E-01	8.93E-04	1.29E-04	2.50E+01	1.93E+05
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.35E-01	8.93E-04	1.21E-04	2.50E+01	2.07E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.36E-01	8.93E-04	1.21E-04	2.50E+01	2.06E+05
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.37E-01	8.93E-04	1.22E-04	2.50E+01	2.05E+05
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.81E-01	8.93E-04	2.51E-04	2.50E+01	9.96E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.79E-01	8.93E-04	2.49E-04	2.50E+01	1.00E+05
Max	Aerial	Forested	Plane	Swimmer-adult	2.90E-01	8.93E-04	2.59E-04	2.50E+01	9.65E+04
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.70E-01	8.93E-04	2.41E-04	2.50E+01	1.04E+05
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.72E-01	8.93E-04	2.43E-04	2.50E+01	1.03E+05
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.74E-01	8.93E-04	2.44E-04	2.50E+01	1.02E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	1.40E-01	2.52E-02	3.53E-03	2.50E-02	14%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.39E-01	2.52E-02	3.50E-03	2.50E-02	14%
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.45E-01	2.52E-02	3.64E-03	2.50E-02	15%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.35E-01	2.52E-02	3.40E-03	2.50E-02	14%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.36E-01	2.52E-02	3.42E-03	2.50E-02	14%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.37E-01	2.52E-02	3.44E-03	2.50E-02	14%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	2.81E-01	2.52E-02	7.07E-03	2.50E-02	28%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.79E-01	2.52E-02	7.02E-03	2.50E-02	28%
Max	Aerial	Forested	Plane	Hiker/Hunter	2.90E-01	2.52E-02	7.29E-03	2.50E-02	29%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	2.70E-01	2.52E-02	6.80E-03	2.50E-02	27%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.72E-01	2.52E-02	6.84E-03	2.50E-02	27%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	2.74E-01	2.52E-02	6.88E-03	2.50E-02	28%
Typical	Aerial	Non-Forested	Plane	Berry - child	1.40E-01	6.67E-02	9.35E-03	2.50E-02	37%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.39E-01	6.67E-02	9.28E-03	2.50E-02	37%
Typical	Aerial	Forested	Plane	Berry - child	1.45E-01	6.67E-02	9.65E-03	2.50E-02	39%
Typical	Aerial	Forested	Helicopter	Berry - child	1.35E-01	6.67E-02	9.01E-03	2.50E-02	36%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.36E-01	6.67E-02	9.07E-03	2.50E-02	36%
Typical	Ground	Not applicable	High Boom	Berry - child	1.37E-01	6.67E-02	9.12E-03	2.50E-02	36%
Max	Aerial	Non-Forested	Plane	Berry - child	2.81E-01	6.67E-02	1.87E-02	2.50E-02	75%
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.79E-01	6.67E-02	1.86E-02	2.50E-02	74%
Max	Aerial	Forested	Plane	Berry - child	2.90E-01	6.67E-02	1.93E-02	2.50E-02	77%
Max	Aerial	Forested	Helicopter	Berry - child	2.70E-01	6.67E-02	1.80E-02	2.50E-02	72%
Max	Ground	Not applicable	Low Boom	Berry - child	2.72E-01	6.67E-02	1.81E-02	2.50E-02	73%
Max	Ground	Not applicable	High Boom	Berry - child	2.74E-01	6.67E-02	1.82E-02	2.50E-02	73%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.40E-01	2.52E-02	3.53E-03	2.50E-02	14%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.39E-01	2.52E-02	3.50E-03	2.50E-02	14%
Typical	Aerial	Forested	Plane	Berry - adult	1.45E-01	2.52E-02	3.64E-03	2.50E-02	15%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.35E-01	2.52E-02	3.40E-03	2.50E-02	14%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.36E-01	2.52E-02	3.42E-03	2.50E-02	14%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.37E-01	2.52E-02	3.44E-03	2.50E-02	14%
Max	Aerial	Non-Forested	Plane	Berry - adult	2.81E-01	2.52E-02	7.07E-03	2.50E-02	28%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.79E-01	2.52E-02	7.02E-03	2.50E-02	28%
Max	Aerial	Forested	Plane	Berry - adult	2.90E-01	2.52E-02	7.29E-03	2.50E-02	29%
Max	Aerial	Forested	Helicopter	Berry - adult	2.70E-01	2.52E-02	6.80E-03	2.50E-02	27%
Max	Ground	Not applicable	Low Boom	Berry - adult	2.72E-01	2.52E-02	6.84E-03	2.50E-02	27%
Max	Ground	Not applicable	High Boom	Berry - adult	2.74E-01	2.52E-02	6.88E-03	2.50E-02	28%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.40E-01	2.52E-02	3.53E-03	2.50E-02	14%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.39E-01	2.52E-02	3.50E-03	2.50E-02	14%
Typical	Aerial	Forested	Plane	Angler	1.45E-01	2.52E-02	3.64E-03	2.50E-02	15%
Typical	Aerial	Forested	Helicopter	Angler	1.35E-01	2.52E-02	3.40E-03	2.50E-02	14%
Typical	Ground	Not applicable	Low Boom	Angler	1.36E-01	2.52E-02	3.42E-03	2.50E-02	14%
Typical	Ground	Not applicable	High Boom	Angler	1.37E-01	2.52E-02	3.44E-03	2.50E-02	14%
Max	Aerial	Non-Forested	Plane	Angler	2.81E-01	2.52E-02	7.07E-03	2.50E-02	28%
Max	Aerial	Non-Forested	Helicopter	Angler	2.79E-01	2.52E-02	7.02E-03	2.50E-02	28%
Max	Aerial	Forested	Plane	Angler	2.90E-01	2.52E-02	7.29E-03	2.50E-02	29%
Max	Aerial	Forested	Helicopter	Angler	2.70E-01	2.52E-02	6.80E-03	2.50E-02	27%
Max	Ground	Not applicable	Low Boom	Angler	2.72E-01	2.52E-02	6.84E-03	2.50E-02	27%
Max	Ground	Not applicable	High Boom	Angler	2.74E-01	2.52E-02	6.88E-03	2.50E-02	28%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.40E-01	3.33E-02	4.67E-03	2.50E-02	19%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.39E-01	3.33E-02	4.64E-03	2.50E-02	19%
Typical	Aerial	Forested	Plane	N.American - child	1.45E-01	3.33E-02	4.82E-03	2.50E-02	19%
Typical	Aerial	Forested	Helicopter	N.American - child	1.35E-01	3.33E-02	4.51E-03	2.50E-02	18%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.36E-01	3.33E-02	4.53E-03	2.50E-02	18%
Typical	Ground	Not applicable	High Boom	N.American - child	1.37E-01	3.33E-02	4.56E-03	2.50E-02	18%
Max	Aerial	Non-Forested	Plane	N.American - child	2.81E-01	3.33E-02	9.37E-03	2.50E-02	37%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.79E-01	3.33E-02	9.30E-03	2.50E-02	37%
Max	Aerial	Forested	Plane	N.American - child	2.90E-01	3.33E-02	9.66E-03	2.50E-02	39%
Max	Aerial	Forested	Helicopter	N.American - child	2.70E-01	3.33E-02	9.01E-03	2.50E-02	36%
Max	Ground	Not applicable	Low Boom	N.American - child	2.72E-01	3.33E-02	9.07E-03	2.50E-02	36%
Max	Ground	Not applicable	High Boom	N.American - child	2.74E-01	3.33E-02	9.12E-03	2.50E-02	36%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.40E-01	1.26E-02	1.76E-03	2.50E-02	7.1%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.39E-01	1.26E-02	1.75E-03	2.50E-02	7.0%
Typical	Aerial	Forested	Plane	N.American - adult	1.45E-01	1.26E-02	1.82E-03	2.50E-02	7.3%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.35E-01	1.26E-02	1.70E-03	2.50E-02	6.8%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.36E-01	1.26E-02	1.71E-03	2.50E-02	6.8%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.37E-01	1.26E-02	1.72E-03	2.50E-02	6.9%
Max	Aerial	Non-Forested	Plane	N.American - adult	2.81E-01	1.26E-02	3.54E-03	2.50E-02	14%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.79E-01	1.26E-02	3.51E-03	2.50E-02	14%
Max	Aerial	Forested	Plane	N.American - adult	2.90E-01	1.26E-02	3.65E-03	2.50E-02	15%
Max	Aerial	Forested	Helicopter	N.American - adult	2.70E-01	1.26E-02	3.40E-03	2.50E-02	14%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.72E-01	1.26E-02	3.42E-03	2.50E-02	14%
Max	Ground	Not applicable	High Boom	N.American - adult	2.74E-01	1.26E-02	3.44E-03	2.50E-02	14%

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, Short-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	Short-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)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	1.40E-01	1.00E+00	1.00E-06	7.67E+02	1.08E-04	2.50E-02	0.43%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.39E-01	1.00E+00	1.00E-06	7.67E+02	1.07E-04	2.50E-02	0.43%
Typical	Aerial	Forested	Plane	Angler	1.45E-01	1.00E+00	1.00E-06	7.67E+02	1.11E-04	2.50E-02	0.44%
Typical	Aerial	Forested	Helicopter	Angler	1.35E-01	1.00E+00	1.00E-06	7.67E+02	1.04E-04	2.50E-02	0.41%
Typical	Ground	Not applicable	Low Boom	Angler	1.36E-01	1.00E+00	1.00E-06	7.67E+02	1.04E-04	2.50E-02	0.42%
Typical	Ground	Not applicable	High Boom	Angler	1.37E-01	1.00E+00	1.00E-06	7.67E+02	1.05E-04	2.50E-02	0.42%
Max	Aerial	Non-Forested	Plane	Angler	2.81E-01	1.00E+00	1.00E-06	7.67E+02	2.16E-04	2.50E-02	0.86%
Max	Aerial	Non-Forested	Helicopter	Angler	2.79E-01	1.00E+00	1.00E-06	7.67E+02	2.14E-04	2.50E-02	0.86%
Max	Aerial	Forested	Plane	Angler	2.90E-01	1.00E+00	1.00E-06	7.67E+02	2.22E-04	2.50E-02	0.890%
Max	Aerial	Forested	Helicopter	Angler	2.70E-01	1.00E+00	1.00E-06	7.67E+02	2.07E-04	2.50E-02	0.83%
Max	Ground	Not applicable	Low Boom	Angler	2.72E-01	1.00E+00	1.00E-06	7.67E+02	2.09E-04	2.50E-02	0.83%
Max	Ground	Not applicable	High Boom	Angler	2.74E-01	1.00E+00	1.00E-06	7.67E+02	2.10E-04	2.50E-02	0.84%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.40E-01	1.00E+00	1.00E-06	1.11E+04	1.56E-03	2.50E-02	6.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.39E-01	1.00E+00	1.00E-06	1.11E+04	1.55E-03	2.50E-02	6.2%
Typical	Aerial	Forested	Plane	N.American - child	1.45E-01	1.00E+00	1.00E-06	1.11E+04	1.61E-03	2.50E-02	6.4%
Typical	Aerial	Forested	Helicopter	N.American - child	1.35E-01	1.00E+00	1.00E-06	1.11E+04	1.50E-03	2.50E-02	6.0%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.36E-01	1.00E+00	1.00E-06	1.11E+04	1.51E-03	2.50E-02	6.1%
Typical	Ground	Not applicable	High Boom	N.American - child	1.37E-01	1.00E+00	1.00E-06	1.11E+04	1.52E-03	2.50E-02	6.1%
Max	Aerial	Non-Forested	Plane	N.American - child	2.81E-01	1.00E+00	1.00E-06	1.11E+04	3.13E-03	2.50E-02	13%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.79E-01	1.00E+00	1.00E-06	1.11E+04	3.11E-03	2.50E-02	12%
Max	Aerial	Forested	Plane	N.American - child	2.90E-01	1.00E+00	1.00E-06	1.11E+04	3.23E-03	2.50E-02	13%
Max	Aerial	Forested	Helicopter	N.American - child	2.70E-01	1.00E+00	1.00E-06	1.11E+04	3.01E-03	2.50E-02	12%
Max	Ground	Not applicable	Low Boom	N.American - child	2.72E-01	1.00E+00	1.00E-06	1.11E+04	3.03E-03	2.50E-02	12%
Max	Ground	Not applicable	High Boom	N.American - child	2.74E-01	1.00E+00	1.00E-06	1.11E+04	3.05E-03	2.50E-02	12%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.40E-01	1.00E+00	1.00E-06	1.11E+04	1.56E-03	2.50E-02	6.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.39E-01	1.00E+00	1.00E-06	1.11E+04	1.55E-03	2.50E-02	6.2%
Typical	Aerial	Forested	Plane	N.American - adult	1.45E-01	1.00E+00	1.00E-06	1.11E+04	1.61E-03	2.50E-02	6.4%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.35E-01	1.00E+00	1.00E-06	1.11E+04	1.50E-03	2.50E-02	6.0%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.36E-01	1.00E+00	1.00E-06	1.11E+04	1.51E-03	2.50E-02	6.1%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.37E-01	1.00E+00	1.00E-06	1.11E+04	1.52E-03	2.50E-02	6.1%
Max	Aerial	Non-Forested	Plane	N.American - adult	2.81E-01	1.00E+00	1.00E-06	1.11E+04	3.13E-03	2.50E-02	13%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.79E-01	1.00E+00	1.00E-06	1.11E+04	3.11E-03	2.50E-02	12%
Max	Aerial	Forested	Plane	N.American - adult	2.90E-01	1.00E+00	1.00E-06	1.11E+04	3.23E-03	2.50E-02	13%
Max	Aerial	Forested	Helicopter	N.American - adult	2.70E-01	1.00E+00	1.00E-06	1.11E+04	3.01E-03	2.50E-02	12%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.72E-01	1.00E+00	1.00E-06	1.11E+04	3.03E-03	2.50E-02	12%
Max	Ground	Not applicable	High Boom	N.American - adult	2.74E-01	1.00E+00	1.00E-06	1.11E+04	3.05E-03	2.50E-02	12%

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, Short-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)	Acute 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	2.50E-02	7.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	2.50E-02	5.8%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	2.50E-02	12.6%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	2.50E-02	0.65%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	2.50E-02	1.61%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	2.50E-02	2.54%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	2.50E-02	15.3%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	2.50E-02	12.4%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.63E-03	4.00E+00	6.50E-03	2.50E-02	26.02%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	2.50E-02	1.29%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	2.50E-02	3.21%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	2.50E-02	5.1%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	2.50E-02	7.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	2.50E-02	5.8%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	2.50E-02	12.7%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	2.50E-02	0.65%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	2.50E-02	1.62%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	2.50E-02	2.56%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	2.50E-02	15.4%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	2.50E-02	12.5%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.63E-03	4.03E+00	6.55E-03	2.50E-02	26.2%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	2.50E-02	1.30%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	2.50E-02	3.23%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	2.50E-02	5.1%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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)	Acute 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	2.50E-02	7.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	2.50E-02	5.8%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	7.90E-04	4.00E+00	3.16E-03	2.50E-02	12.6%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	4.03E-05	4.00E+00	1.61E-04	2.50E-02	0.65%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	2.50E-02	1.61%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	2.50E-02	2.54%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	2.50E-02	15.3%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	2.50E-02	12.4%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.63E-03	4.00E+00	6.50E-03	2.50E-02	26.02%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	2.50E-02	1.29%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	2.50E-02	3.21%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	2.50E-02	5.1%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	2.50E-02	7.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	2.50E-02	5.8%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	7.90E-04	4.03E+00	3.18E-03	2.50E-02	12.7%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	2.50E-02	0.65%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	2.50E-02	1.62%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	2.50E-02	2.56%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	2.50E-02	15.4%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	2.50E-02	12.5%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.63E-03	4.03E+00	6.55E-03	2.50E-02	26.2%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	2.50E-02	1.30%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	2.50E-02	3.23%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	2.50E-02	5.1%

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, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	7.74E+03	1.10E+05	--	--	14%	--	--	3.58E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	9.67E+03	1.38E+05	--	--	14%	--	--	3.99E+00
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	4.42E+03	6.29E+04	--	--	15%	--	--	2.58E+00
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	8.65E+04	1.23E+06	--	--	14%	--	--	6.74E+00
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	3.46E+04	4.93E+05	--	--	14%	--	--	5.96E+00
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	2.19E+04	3.12E+05	--	--	14%	--	--	5.36E+00
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	3.65E+03	5.19E+04	--	--	28%	--	--	1.73E+00
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	4.49E+03	6.40E+04	--	--	28%	--	--	1.93E+00
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+03	2.14E+03	3.06E+04	--	--	29%	--	--	1.26E+00
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+03	4.32E+04	6.16E+05	--	--	27%	--	--	3.37E+00
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	1.74E+04	2.48E+05	--	--	27%	--	--	2.98E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	1.10E+04	1.56E+05	--	--	28%	--	--	2.68E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	2.97E+03	3.67E+04	--	--	37%	7.2%	--	1.24E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	3.71E+03	4.58E+04	--	--	37%	5.8%	--	1.39E+00
Typical	Aerial	Forested	Plane	Berry - child	1.00E+03	1.70E+03	2.09E+04	--	--	39%	12.6%	--	**8.70E-01**
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+03	3.32E+04	4.10E+05	--	--	36%	0.65%	--	2.50E+00
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	1.33E+04	1.64E+05	--	--	36%	1.61%	--	2.17E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	8.42E+03	1.04E+05	--	--	36%	2.54%	--	1.93E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	1.40E+03	1.73E+04	--	--	75%	15.3%	--	**5.97E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	1.73E+03	2.13E+04	--	--	74%	12.4%	--	**6.69E-01**
Max	Aerial	Forested	Plane	Berry - child	1.00E+03	**8.24E+02**	1.02E+04	--	--	77%	26.0%	--	**4.26E-01**
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+03	1.66E+04	2.05E+05	--	--	72%	1.29%	--	1.25E+00
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	6.68E+03	8.24E+04	--	--	73%	3.21%	--	1.09E+00
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	4.21E+03	5.20E+04	--	--	73%	5.1%	--	**9.64E-01**
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	7.74E+03	6.42E+04	--	--	14%	7.2%	--	2.79E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	9.67E+03	8.02E+04	--	--	14%	5.8%	--	3.18E+00
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+03	4.42E+03	3.66E+04	--	--	15%	12.7%	--	1.90E+00
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	8.65E+04	7.17E+05	--	--	14%	0.65%	--	6.43E+00
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	3.46E+04	2.87E+05	--	--	14%	1.62%	--	5.39E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	2.19E+04	1.82E+05	--	--	14%	2.56%	--	4.66E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	3.65E+03	3.02E+04	--	--	28%	15.4%	--	1.34E+00
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	4.49E+03	3.72E+04	--	--	28%	12.5%	--	1.53E+00
Max	Aerial	Forested	Plane	Berry - adult	1.00E+03	2.14E+03	1.78E+04	--	--	29%	26.2%	--	**9.29E-01**
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+03	4.32E+04	3.58E+05	--	--	27%	1.30%	--	3.22E+00
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	1.74E+04	1.44E+05	--	--	27%	3.23%	--	2.70E+00
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	1.10E+04	9.09E+04	--	--	28%	5.1%	--	2.33E+00

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	7.74E+03	1.10E+05	--	--	14%	--	0.43%	3.53E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	9.67E+03	1.38E+05	--	--	14%	--	0.43%	3.92E+00
Typical	Aerial	Forested	Plane	Angler	1.00E+03	4.42E+03	6.29E+04	--	--	15%	--	0.44%	2.55E+00
Typical	Aerial	Forested	Helicopter	Angler	1.00E+03	8.65E+04	1.23E+06	--	--	14%	--	0.41%	6.56E+00
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	3.46E+04	4.93E+05	--	--	14%	--	0.42%	5.82E+00
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	2.19E+04	3.12E+05	--	--	14%	--	0.42%	5.24E+00
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	3.65E+03	5.19E+04	--	--	28%	--	0.86%	1.71E+00
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	4.49E+03	6.40E+04	--	--	28%	--	0.86%	1.90E+00
Max	Aerial	Forested	Plane	Angler	1.00E+03	2.14E+03	3.06E+04	--	--	29%	--	0.890%	1.25E+00
Max	Aerial	Forested	Helicopter	Angler	1.00E+03	4.32E+04	6.16E+05	--	--	27%	--	0.83%	3.28E+00
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	1.74E+04	2.48E+05	--	--	27%	--	0.83%	2.91E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	1.10E+04	1.56E+05	--	--	28%	--	0.84%	2.62E+00
Typical	Aerial	Non-Forested	Plane	Res-child	1.00E+03	2.97E+03	9.35E+03	--	--	--	--	--	2.26E+00
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	3.71E+03	1.17E+04	--	--	--	--	--	2.82E+00
Typical	Aerial	Forested	Plane	Res-child	1.00E+03	1.70E+03	5.33E+03	--	--	--	--	--	1.29E+00
Typical	Aerial	Forested	Helicopter	Res-child	1.00E+03	3.32E+04	1.04E+05	--	--	--	--	--	2.52E+01
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	1.33E+04	4.18E+04	--	--	--	--	--	1.01E+01
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	8.42E+03	2.65E+04	--	--	--	--	--	6.39E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	1.40E+03	4.40E+03	--	--	--	--	--	1.06E+00
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	1.73E+03	5.42E+03	--	--	--	--	--	1.31E+00
Max	Aerial	Forested	Plane	Res-child	1.00E+03	**8.24E+02**	2.59E+03	--	--	--	--	--	**6.25E-01**
Max	Aerial	Forested	Helicopter	Res-child	1.00E+03	1.66E+04	5.22E+04	--	--	--	--	--	1.26E+01
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	6.68E+03	2.10E+04	--	--	--	--	--	5.07E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	4.21E+03	1.32E+04	--	--	--	--	--	3.19E+00
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	7.74E+03	1.63E+04	--	--	--	--	--	5.26E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	9.67E+03	2.04E+04	--	--	--	--	--	6.56E+00
Typical	Aerial	Forested	Plane	Res-adult	1.00E+03	4.42E+03	9.32E+03	--	--	--	--	--	3.00E+00
Typical	Aerial	Forested	Helicopter	Res-adult	1.00E+03	8.65E+04	1.83E+05	--	--	--	--	--	5.87E+01
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	3.46E+04	7.30E+04	--	--	--	--	--	2.35E+01
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	2.19E+04	4.63E+04	--	--	--	--	--	1.49E+01
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	3.65E+03	7.70E+03	--	--	--	--	--	2.47E+00
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	4.49E+03	9.48E+03	--	--	--	--	--	3.05E+00
Max	Aerial	Forested	Plane	Res-adult	1.00E+03	2.14E+03	4.53E+03	--	--	--	--	--	1.45E+00
Max	Aerial	Forested	Helicopter	Res-adult	1.00E+03	4.32E+04	9.13E+04	--	--	--	--	--	2.93E+01
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	1.74E+04	3.67E+04	--	--	--	--	--	1.18E+01
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	1.10E+04	2.31E+04	--	--	--	--	--	7.44E+00

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	2.97E+03	3.06E+04	5.31E+06	--	19%	7.2%	6.2%	1.45E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	3.71E+03	3.82E+04	5.35E+06	--	19%	5.8%	6.2%	1.66E+00
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+03	1.70E+03	1.74E+04	5.15E+06	--	19%	12.6%	6.4%	**9.70E-01**
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	3.32E+04	3.42E+05	5.51E+06	--	18%	0.65%	6.0%	3.57E+00
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	1.33E+04	1.37E+05	5.48E+06	--	18%	1.61%	6.1%	2.93E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	8.42E+03	8.66E+04	5.45E+06	--	18%	2.54%	6.1%	2.50E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	1.40E+03	1.44E+04	2.65E+06	--	37%	15.3%	13%	**6.96E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	1.73E+03	1.77E+04	2.67E+06	--	37%	12.4%	12%	**7.96E-01**
Max	Aerial	Forested	Plane	N.A.-child	1.00E+03	**8.24E+02**	8.47E+03	2.57E+06	--	39%	26.02%	13%	**4.74E-01**
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+03	1.66E+04	1.71E+05	2.76E+06	--	36%	1.29%	12%	1.78E+00
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	6.68E+03	6.87E+04	2.74E+06	--	36%	3.21%	12%	1.47E+00
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	4.21E+03	4.33E+04	2.72E+06	--	36%	5.1%	12%	1.25E+00
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	7.74E+03	5.35E+04	1.03E+07	--	7.1%	7.2%	6.2%	2.83E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	9.67E+03	6.68E+04	1.04E+07	--	7.0%	5.8%	6.2%	3.24E+00
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+03	4.42E+03	3.05E+04	1.00E+07	--	7.3%	12.7%	6.4%	1.91E+00
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	8.65E+04	5.97E+05	1.07E+07	--	6.8%	0.65%	6.0%	6.76E+00
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	3.46E+04	2.39E+05	1.06E+07	--	6.8%	1.62%	6.1%	5.61E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	2.19E+04	1.51E+05	1.06E+07	--	6.9%	2.56%	6.1%	4.82E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	3.65E+03	2.52E+04	5.15E+06	--	14%	15.4%	13%	1.36E+00
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	4.49E+03	3.10E+04	5.19E+06	--	14%	12.5%	12%	1.55E+00
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+03	2.14E+03	1.48E+04	4.99E+06	--	15%	26.2%	13%	**9.34E-01**
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+03	4.32E+04	2.99E+05	5.35E+06	--	14%	1.30%	12%	3.38E+00
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	1.74E+04	1.20E+05	5.32E+06	--	14%	3.23%	12%	2.81E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	1.10E+04	7.57E+04	5.29E+06	--	14%	5.1%	12%	2.41E+00

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	1.38E+07	2.23E+04	--	--	--	2.23E+01
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.39E+07	2.25E+04	--	--	--	2.24E+01
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	1.34E+07	2.16E+04	--	--	--	2.16E+01
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.43E+07	2.31E+04	--	--	--	2.31E+01
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	1.42E+07	2.30E+04	--	--	--	2.29E+01
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.42E+07	2.28E+04	--	--	--	2.28E+01
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	6.89E+06	1.11E+04	--	--	--	1.11E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	6.94E+06	1.12E+04	--	--	--	1.12E+01
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+03	--	--	6.68E+06	1.08E+04	--	--	--	1.08E+01
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+03	--	--	7.16E+06	1.16E+04	--	--	--	1.15E+01
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	7.12E+06	1.15E+04	--	--	--	1.15E+01
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	7.08E+06	1.14E+04	--	--	--	1.14E+01
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.68E+07	2.00E+05	--	--	--	1.98E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.70E+07	2.01E+05	--	--	--	2.00E+02
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.60E+07	1.93E+05	--	--	--	1.92E+02
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.78E+07	2.07E+05	--	--	--	2.06E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	2.77E+07	2.06E+05	--	--	--	2.04E+02
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	2.75E+07	2.05E+05	--	--	--	2.03E+02
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.34E+07	9.96E+04	--	--	--	9.88E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.35E+07	1.00E+05	--	--	--	9.96E+01
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.30E+07	9.65E+04	--	--	--	9.58E+01
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.39E+07	1.04E+05	--	--	--	1.03E+02
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	1.38E+07	1.03E+05	--	--	--	1.02E+02
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	1.38E+07	1.02E+05	--	--	--	1.02E+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.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+04
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	2.50E+01	2.97E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	2.50E+01	3.71E+03
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	2.50E+01	1.33E+04
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	2.50E+01	8.42E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	2.50E+01	1.40E+03
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	2.50E+01	1.73E+03
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	2.50E+01	6.68E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	2.50E+01	4.21E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+04
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	2.97E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	2.50E+01	3.71E+03
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	2.50E+01	1.33E+04
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	2.50E+01	8.42E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	2.50E+01	1.40E+03
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	2.50E+01	1.73E+03
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	2.50E+01	6.68E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	2.50E+01	4.21E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+04
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	4.50E-04	1.87E+02	8.40E-03	2.50E+01	2.97E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	3.61E-04	1.87E+02	6.73E-03	2.50E+01	3.71E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	1.01E-04	1.87E+02	1.88E-03	2.50E+01	1.33E+04
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	1.59E-04	1.87E+02	2.97E-03	2.50E+01	8.42E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	9.56E-04	1.87E+02	1.79E-02	2.50E+01	1.40E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	7.76E-04	1.87E+02	1.45E-02	2.50E+01	1.73E+03
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	2.00E-04	1.87E+02	3.74E-03	2.50E+01	6.68E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	3.18E-04	1.87E+02	5.94E-03	2.50E+01	4.21E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	4.50E-04	7.17E+01	3.23E-03	2.50E+01	7.74E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	3.61E-04	7.17E+01	2.59E-03	2.50E+01	9.67E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	1.01E-04	7.17E+01	7.23E-04	2.50E+01	3.46E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	1.59E-04	7.17E+01	1.14E-03	2.50E+01	2.19E+04
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	9.56E-04	7.17E+01	6.86E-03	2.50E+01	3.65E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	7.76E-04	7.17E+01	5.56E-03	2.50E+01	4.49E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	2.00E-04	7.17E+01	1.44E-03	2.50E+01	1.74E+04
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	3.18E-04	7.17E+01	2.28E-03	2.50E+01	1.10E+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, Short-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)	Short-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	2.50E+01	1.10E+05
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	2.50E+01	1.38E+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	2.50E+01	4.93E+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	2.50E+01	3.12E+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	2.50E+01	5.19E+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	2.50E+01	6.40E+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	2.50E+01	2.48E+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	2.50E+01	1.56E+05
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	2.50E+01	3.67E+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	2.50E+01	4.58E+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	2.50E+01	1.64E+05
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	2.50E+01	1.04E+05
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	2.50E+01	1.73E+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	2.50E+01	2.13E+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	2.50E+01	8.24E+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	2.50E+01	5.20E+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	2.50E+01	6.42E+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	2.50E+01	8.02E+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	2.50E+01	2.87E+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	2.50E+01	1.82E+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	2.50E+01	3.02E+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	2.50E+01	3.72E+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	2.50E+01	1.44E+05
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	2.50E+01	9.09E+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	2.50E+01	1.10E+05
Typical	Aerial	Non-Forested	Helicopter	Angler	2.50E-01	1.00E-01	3.61E-04	9.02E-05	2.01E+01	1.81E-04	2.50E+01	1.38E+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	2.50E+01	4.93E+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	2.50E+01	3.12E+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	2.50E+01	5.19E+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	2.50E+01	6.40E+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	2.50E+01	2.48E+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	2.50E+01	1.56E+05

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	9.35E+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	2.50E+01	1.17E+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	2.50E+01	4.18E+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	2.50E+01	2.65E+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	2.50E+01	4.40E+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	2.50E+01	5.42E+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	2.50E+01	2.10E+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	2.50E+01	1.32E+04
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	2.50E+01	1.63E+04
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	2.50E+01	2.04E+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	2.50E+01	7.30E+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	2.50E+01	4.63E+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	2.50E+01	7.70E+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	2.50E+01	9.48E+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	2.50E+01	3.67E+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	2.50E+01	2.31E+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	2.50E+01	3.06E+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	2.50E+01	3.82E+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	2.50E+01	1.37E+05
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	2.50E+01	8.66E+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	2.50E+01	1.44E+04
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	2.50E+01	1.77E+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	2.50E+01	6.87E+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	2.50E+01	4.33E+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	2.50E+01	5.35E+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	2.50E+01	6.68E+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	2.50E+01	2.39E+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	2.50E+01	1.51E+05
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	2.50E+01	2.52E+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	2.50E+01	3.10E+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	2.50E+01	1.20E+05
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	2.50E+01	7.57E+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, Short-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)	Short-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)	Short-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	2.50E+01	3.46E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	4.56E-03	1.00E-03	4.40E+02	5.89E-08	2.50E+01	4.25E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	1.36E-03	1.00E-03	4.40E+02	1.76E-08	2.50E+01	1.42E+09
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	2.19E-03	1.00E-03	4.40E+02	2.83E-08	2.50E+01	8.85E+08
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	1.19E-02	1.00E-03	4.40E+02	1.54E-07	2.50E+01	1.63E+08
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	9.84E-03	1.00E-03	4.40E+02	1.27E-07	2.50E+01	1.97E+08
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	2.73E-03	1.00E-03	4.40E+02	3.52E-08	2.50E+01	7.09E+08
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	4.38E-03	1.00E-03	4.40E+02	5.65E-08	2.50E+01	4.42E+08
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	5.60E-03	1.00E-03	2.26E+02	3.72E-08	2.50E+01	6.72E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	4.56E-03	1.00E-03	2.26E+02	3.03E-08	2.50E+01	8.25E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	1.36E-03	1.00E-03	2.26E+02	9.03E-09	2.50E+01	2.77E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	2.19E-03	1.00E-03	2.26E+02	1.45E-08	2.50E+01	1.72E+09
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.19E-02	1.00E-03	2.26E+02	7.90E-08	2.50E+01	3.16E+08
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	9.84E-03	1.00E-03	2.26E+02	6.54E-08	2.50E+01	3.83E+08
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	2.73E-03	1.00E-03	2.26E+02	1.81E-08	2.50E+01	1.38E+09
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	4.38E-03	1.00E-03	2.26E+02	2.91E-08	2.50E+01	8.59E+08
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	5.60E-03	1.00E-03	1.14E+03	1.88E-07	2.50E+01	1.33E+08
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	4.56E-03	1.00E-03	1.14E+03	1.53E-07	2.50E+01	1.63E+08
Typical	Ground	Not applicable	Low Boom	N.American-child	2.93E-05	1.36E-03	1.00E-03	1.14E+03	4.56E-08	2.50E+01	5.48E+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	2.50E+01	3.40E+08
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.19E-02	1.00E-03	1.14E+03	3.99E-07	2.50E+01	6.26E+07
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	9.84E-03	1.00E-03	1.14E+03	3.30E-07	2.50E+01	7.57E+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	2.50E+01	2.73E+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	2.50E+01	1.70E+08
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	5.60E-03	1.00E-03	5.89E+02	9.67E-08	2.50E+01	2.59E+08
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	4.56E-03	1.00E-03	5.89E+02	7.87E-08	2.50E+01	3.17E+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	2.50E+01	1.06E+09
Typical	Ground	Not applicable	High Boom	N.American-adult	2.93E-05	2.19E-03	1.00E-03	5.89E+02	3.78E-08	2.50E+01	6.61E+08
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.19E-02	1.00E-03	5.89E+02	2.06E-07	2.50E+01	1.22E+08
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	9.84E-03	1.00E-03	5.89E+02	1.70E-07	2.50E+01	1.47E+08
Max	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	2.73E-03	1.00E-03	5.89E+02	4.71E-08	2.50E+01	5.30E+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	2.50E+01	3.31E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Short-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	2.50E+01	5.58E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	4.56E-03	8.00E-03	3.65E-05	2.50E+01	6.85E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.36E-03	8.00E-03	1.09E-05	2.50E+01	2.30E+06
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.19E-03	8.00E-03	1.75E-05	2.50E+01	1.43E+06
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.19E-02	8.00E-03	9.52E-05	2.50E+01	2.63E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	9.84E-03	8.00E-03	7.87E-05	2.50E+01	3.18E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.73E-03	8.00E-03	2.18E-05	2.50E+01	1.14E+06
Max	Ground	Not applicable	High Boom	Swimmer-child	4.38E-03	8.00E-03	3.50E-05	2.50E+01	7.13E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	5.60E-03	8.93E-04	5.00E-06	2.50E+01	5.00E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	4.56E-03	8.93E-04	4.07E-06	2.50E+01	6.14E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.36E-03	8.93E-04	1.21E-06	2.50E+01	2.06E+07
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.19E-03	8.93E-04	1.96E-06	2.50E+01	1.28E+07
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.19E-02	8.93E-04	1.06E-05	2.50E+01	2.35E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	9.84E-03	8.93E-04	8.79E-06	2.50E+01	2.84E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.73E-03	8.93E-04	2.44E-06	2.50E+01	1.03E+07
Max	Ground	Not applicable	High Boom	Swimmer-adult	4.38E-03	8.93E-04	3.91E-06	2.50E+01	6.39E+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, Short-term
Pathway: Drinking Water Ingestion
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute 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	2.50E-02	0.56%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	4.56E-03	2.52E-02	1.15E-04	2.50E-02	0.46%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.36E-03	2.52E-02	3.42E-05	2.50E-02	0.14%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.19E-03	2.52E-02	5.51E-05	2.50E-02	0.2%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.19E-02	2.52E-02	2.99E-04	2.50E-02	1.2%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	9.84E-03	2.52E-02	2.48E-04	2.50E-02	1.0%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	2.73E-03	2.52E-02	6.87E-05	2.50E-02	0.27%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	4.38E-03	2.52E-02	1.10E-04	2.50E-02	0.44%
Typical	Aerial	Non-Forested	Plane	Berry - child	5.60E-03	6.67E-02	3.73E-04	2.50E-02	1.5%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	4.56E-03	6.67E-02	3.04E-04	2.50E-02	1.2%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.36E-03	6.67E-02	9.07E-05	2.50E-02	0.36%
Typical	Ground	Not applicable	High Boom	Berry - child	2.19E-03	6.67E-02	1.46E-04	2.50E-02	0.6%
Max	Aerial	Non-Forested	Plane	Berry - child	1.19E-02	6.67E-02	7.93E-04	2.50E-02	3.2%
Max	Aerial	Non-Forested	Helicopter	Berry - child	9.84E-03	6.67E-02	6.56E-04	2.50E-02	2.6%
Max	Ground	Not applicable	Low Boom	Berry - child	2.73E-03	6.67E-02	1.82E-04	2.50E-02	0.73%
Max	Ground	Not applicable	High Boom	Berry - child	4.38E-03	6.67E-02	2.92E-04	2.50E-02	1.2%
Typical	Aerial	Non-Forested	Plane	Berry - adult	5.60E-03	2.52E-02	1.41E-04	2.50E-02	0.56%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	4.56E-03	2.52E-02	1.15E-04	2.50E-02	0.46%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.36E-03	2.52E-02	3.42E-05	2.50E-02	0.14%
Typical	Ground	Not applicable	High Boom	Berry - adult	2.19E-03	2.52E-02	5.51E-05	2.50E-02	0.2%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.19E-02	2.52E-02	2.99E-04	2.50E-02	1.2%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	9.84E-03	2.52E-02	2.48E-04	2.50E-02	1.0%
Max	Ground	Not applicable	Low Boom	Berry - adult	2.73E-03	2.52E-02	6.87E-05	2.50E-02	0.27%
Max	Ground	Not applicable	High Boom	Berry - adult	4.38E-03	2.52E-02	1.10E-04	2.50E-02	0.44%

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

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute 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	2.50E-02	0.56%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.56E-03	2.52E-02	1.15E-04	2.50E-02	0.46%
Typical	Ground	Not applicable	Low Boom	Angler	1.36E-03	2.52E-02	3.42E-05	2.50E-02	0.14%
Typical	Ground	Not applicable	High Boom	Angler	2.19E-03	2.52E-02	5.51E-05	2.50E-02	0.2%
Max	Aerial	Non-Forested	Plane	Angler	1.19E-02	2.52E-02	2.99E-04	2.50E-02	1.2%
Max	Aerial	Non-Forested	Helicopter	Angler	9.84E-03	2.52E-02	2.48E-04	2.50E-02	1.0%
Max	Ground	Not applicable	Low Boom	Angler	2.73E-03	2.52E-02	6.87E-05	2.50E-02	0.27%
Max	Ground	Not applicable	High Boom	Angler	4.38E-03	2.52E-02	1.10E-04	2.50E-02	0.44%
Typical	Aerial	Non-Forested	Plane	N.American - child	5.60E-03	3.33E-02	1.87E-04	2.50E-02	0.75%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.56E-03	3.33E-02	1.52E-04	2.50E-02	0.61%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.36E-03	3.33E-02	4.53E-05	2.50E-02	0.18%
Typical	Ground	Not applicable	High Boom	N.American - child	2.19E-03	3.33E-02	7.30E-05	2.50E-02	0.3%
Max	Aerial	Non-Forested	Plane	N.American - child	1.19E-02	3.33E-02	3.97E-04	2.50E-02	1.6%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.84E-03	3.33E-02	3.28E-04	2.50E-02	1.3%
Max	Ground	Not applicable	Low Boom	N.American - child	2.73E-03	3.33E-02	9.10E-05	2.50E-02	0.36%
Max	Ground	Not applicable	High Boom	N.American - child	4.38E-03	3.33E-02	1.46E-04	2.50E-02	0.58%
Typical	Aerial	Non-Forested	Plane	N.American - adult	5.60E-03	1.26E-02	7.04E-05	2.50E-02	0.28%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.56E-03	1.26E-02	5.74E-05	2.50E-02	0.23%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.36E-03	1.26E-02	1.71E-05	2.50E-02	0.07%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.19E-03	1.26E-02	2.75E-05	2.50E-02	0.1%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.19E-02	1.26E-02	1.50E-04	2.50E-02	0.60%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.84E-03	1.26E-02	1.24E-04	2.50E-02	0.50%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.73E-03	1.26E-02	3.43E-05	2.50E-02	0.14%
Max	Ground	Not applicable	High Boom	N.American - adult	4.38E-03	1.26E-02	5.51E-05	2.50E-02	0.22%

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, Short-term
Pathway: Ingestion of Fish
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

Scenario:	AgDrift Scenario	Land Type	Equipment	Public Receptor	Short-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)	Acute 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	2.50E-02	0.017%
Typical	Aerial	Non-Forested	Helicopter	Angler	4.56E-03	1.00E+00	1.00E-06	7.67E+02	3.50E-06	2.50E-02	0.014%
Typical	Ground	Not applicable	Low Boom	Angler	1.36E-03	1.00E+00	1.00E-06	7.67E+02	1.04E-06	2.50E-02	0.004%
Typical	Ground	Not applicable	High Boom	Angler	2.19E-03	1.00E+00	1.00E-06	7.67E+02	1.68E-06	2.50E-02	0.007%
Max	Aerial	Non-Forested	Plane	Angler	1.19E-02	1.00E+00	1.00E-06	7.67E+02	9.13E-06	2.50E-02	0.037%
Max	Aerial	Non-Forested	Helicopter	Angler	9.84E-03	1.00E+00	1.00E-06	7.67E+02	7.55E-06	2.50E-02	0.030%
Max	Ground	Not applicable	Low Boom	Angler	2.73E-03	1.00E+00	1.00E-06	7.67E+02	2.09E-06	2.50E-02	0.008%
Max	Ground	Not applicable	High Boom	Angler	4.38E-03	1.00E+00	1.00E-06	7.67E+02	3.36E-06	2.50E-02	0.013%
Typical	Aerial	Non-Forested	Plane	N.American - child	5.60E-03	1.00E+00	1.00E-06	1.11E+04	6.23E-05	2.50E-02	0.25%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	4.56E-03	1.00E+00	1.00E-06	1.11E+04	5.08E-05	2.50E-02	0.20%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.36E-03	1.00E+00	1.00E-06	1.11E+04	1.51E-05	2.50E-02	0.061%
Typical	Ground	Not applicable	High Boom	N.American - child	2.19E-03	1.00E+00	1.00E-06	1.11E+04	2.44E-05	2.50E-02	0.1%
Max	Aerial	Non-Forested	Plane	N.American - child	1.19E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	2.50E-02	0.53%
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.84E-03	1.00E+00	1.00E-06	1.11E+04	1.10E-04	2.50E-02	0.44%
Max	Ground	Not applicable	Low Boom	N.American - child	2.73E-03	1.00E+00	1.00E-06	1.11E+04	3.04E-05	2.50E-02	0.12%
Max	Ground	Not applicable	High Boom	N.American - child	4.38E-03	1.00E+00	1.00E-06	1.11E+04	4.88E-05	2.50E-02	0.20%
Typical	Aerial	Non-Forested	Plane	N.American - adult	5.60E-03	1.00E+00	1.00E-06	1.11E+04	6.23E-05	2.50E-02	0.25%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	4.56E-03	1.00E+00	1.00E-06	1.11E+04	5.08E-05	2.50E-02	0.20%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.36E-03	1.00E+00	1.00E-06	1.11E+04	1.51E-05	2.50E-02	0.06%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.19E-03	1.00E+00	1.00E-06	1.11E+04	2.44E-05	2.50E-02	0.1%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.19E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	2.50E-02	0.53%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.84E-03	1.00E+00	1.00E-06	1.11E+04	1.10E-04	2.50E-02	0.44%
Max	Ground	Not applicable	Low Boom	N.American - adult	2.73E-03	1.00E+00	1.00E-06	1.11E+04	3.04E-05	2.50E-02	0.12%
Max	Ground	Not applicable	High Boom	N.American - adult	4.38E-03	1.00E+00	1.00E-06	1.11E+04	4.88E-05	2.50E-02	0.20%

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, Short-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)	Acute 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	2.50E-02	7.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	2.50E-02	5.8%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	2.50E-02	1.61%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	2.50E-02	2.54%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	2.50E-02	15.3%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	2.50E-02	12.4%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	2.50E-02	3.21%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	2.50E-02	5.1%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	2.50E-02	7.2%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	2.50E-02	5.8%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	2.50E-02	1.62%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	2.50E-02	2.56%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	2.50E-02	15.4%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	2.50E-02	12.5%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	2.50E-02	3.23%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	2.50E-02	5.1%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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)	Acute 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	2.50E-02	7.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.61E-04	4.00E+00	1.44E-03	2.50E-02	5.8%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.01E-04	4.00E+00	4.03E-04	2.50E-02	1.61%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.59E-04	4.00E+00	6.36E-04	2.50E-02	2.54%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.56E-04	4.00E+00	3.83E-03	2.50E-02	15.3%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.76E-04	4.00E+00	3.10E-03	2.50E-02	12.4%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.00E-04	4.00E+00	8.02E-04	2.50E-02	3.21%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.18E-04	4.00E+00	1.27E-03	2.50E-02	5.1%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.50E-04	4.03E+00	1.81E-03	2.50E-02	7.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.61E-04	4.03E+00	1.45E-03	2.50E-02	5.8%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.01E-04	4.03E+00	4.06E-04	2.50E-02	1.62%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.59E-04	4.03E+00	6.40E-04	2.50E-02	2.56%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.56E-04	4.03E+00	3.85E-03	2.50E-02	15.4%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.76E-04	4.03E+00	3.12E-03	2.50E-02	12.5%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.00E-04	4.03E+00	8.07E-04	2.50E-02	3.23%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.18E-04	4.03E+00	1.28E-03	2.50E-02	5.1%

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, Short-term
Herbicide: 2,4-D Aquatic (Floating and Emerged)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	7.74E+03	1.10E+05	--	--	0.56%	--	--	6.95E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	9.67E+03	1.38E+05	--	--	0.46%	--	--	8.67E+00
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	3.46E+04	4.93E+05	--	--	0.14%	--	--	3.10E+01
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	2.19E+04	3.12E+05	--	--	0.2%	--	--	1.96E+01
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	3.65E+03	5.19E+04	--	--	1.2%	--	--	3.27E+00
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	4.49E+03	6.40E+04	--	--	1.0%	--	--	4.03E+00
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	1.74E+04	2.48E+05	--	--	0.27%	--	--	1.56E+01
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	1.10E+04	1.56E+05	--	--	0.44%	--	--	9.80E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	2.97E+03	3.67E+04	--	--	1.5%	7.2%	--	2.22E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	3.71E+03	4.58E+04	--	--	1.2%	5.8%	--	2.77E+00
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	1.33E+04	1.64E+05	--	--	0.36%	1.61%	--	9.89E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	8.42E+03	1.04E+05	--	--	0.6%	2.54%	--	6.26E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	1.40E+03	1.73E+04	--	--	3.2%	15.3%	--	1.05E+00
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	1.73E+03	2.13E+04	--	--	2.6%	12.4%	--	1.29E+00
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	6.68E+03	8.24E+04	--	--	0.73%	3.21%	--	4.97E+00
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	4.21E+03	5.20E+04	--	--	1.2%	5.1%	--	3.13E+00
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	7.74E+03	6.42E+04	--	--	0.56%	7.2%	--	4.49E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	9.67E+03	8.02E+04	--	--	0.46%	5.8%	--	5.60E+00
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	3.46E+04	2.87E+05	--	--	0.14%	1.62%	--	2.00E+01
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	2.19E+04	1.82E+05	--	--	0.2%	2.56%	--	1.27E+01
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	3.65E+03	3.02E+04	--	--	1.2%	15.4%	--	2.11E+00
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	4.49E+03	3.72E+04	--	--	1.0%	12.5%	--	2.60E+00
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	1.74E+04	1.44E+05	--	--	0.27%	3.23%	--	1.01E+01
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	1.10E+04	9.09E+04	--	--	0.44%	5.1%	--	6.34E+00
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	7.74E+03	1.10E+05	--	--	0.56%	--	0.017%	6.94E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	9.67E+03	1.38E+05	--	--	0.46%	--	0.014%	8.66E+00
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	3.46E+04	4.93E+05	--	--	0.14%	--	0.0042%	3.09E+01
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	2.19E+04	3.12E+05	--	--	0.2%	--	0.007%	1.96E+01
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	3.65E+03	5.19E+04	--	--	1.2%	--	0.037%	3.27E+00
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	4.49E+03	6.40E+04	--	--	1.0%	--	0.030%	4.03E+00
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	1.74E+04	2.48E+05	--	--	0.27%	--	0.0084%	1.55E+01
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	1.10E+04	1.56E+05	--	--	0.44%	--	0.013%	9.79E+00

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

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	2.97E+03	9.35E+03	--	--	--	--	--	2.26E+00
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	3.71E+03	1.17E+04	--	--	--	--	--	2.82E+00
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	1.33E+04	4.18E+04	--	--	--	--	--	1.01E+01
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	8.42E+03	2.65E+04	--	--	--	--	--	6.39E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	1.40E+03	4.40E+03	--	--	--	--	--	1.06E+00
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	1.73E+03	5.42E+03	--	--	--	--	--	1.31E+00
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	6.68E+03	2.10E+04	--	--	--	--	--	5.07E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	4.21E+03	1.32E+04	--	--	--	--	--	3.19E+00
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	7.74E+03	1.63E+04	--	--	--	--	--	5.26E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	9.67E+03	2.04E+04	--	--	--	--	--	6.56E+00
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	3.46E+04	7.30E+04	--	--	--	--	--	2.35E+01
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	2.19E+04	4.63E+04	--	--	--	--	--	1.49E+01
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	3.65E+03	7.70E+03	--	--	--	--	--	2.47E+00
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	4.49E+03	9.48E+03	--	--	--	--	--	3.05E+00
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	1.74E+04	3.67E+04	--	--	--	--	--	1.18E+01
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	1.10E+04	2.31E+04	--	--	--	--	--	7.44E+00
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	2.97E+03	3.06E+04	1.33E+08	--	0.75%	7.2%	0.25%	2.22E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	3.71E+03	3.82E+04	1.63E+08	--	0.61%	5.8%	0.20%	2.77E+00
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	1.33E+04	1.37E+05	5.48E+08	--	0.18%	1.61%	0.061%	9.89E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	8.42E+03	8.66E+04	3.40E+08	--	0.3%	2.54%	0.1%	6.26E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	1.40E+03	1.44E+04	6.26E+07	--	1.6%	15.3%	0.53%	1.04E+00
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	1.73E+03	1.77E+04	7.57E+07	--	1.3%	12.4%	0.44%	1.29E+00
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	6.68E+03	6.87E+04	2.73E+08	--	0.36%	3.21%	0.12%	4.97E+00
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	4.21E+03	4.33E+04	1.70E+08	--	0.58%	5.1%	0.20%	3.13E+00
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	7.74E+03	5.35E+04	2.59E+08	--	0.28%	7.2%	0.25%	4.43E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	9.67E+03	6.68E+04	3.17E+08	--	0.23%	5.8%	0.20%	5.53E+00
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	3.46E+04	2.39E+05	1.06E+09	--	0.068%	1.62%	0.061%	1.98E+01
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	2.19E+04	1.51E+05	6.61E+08	--	0.1%	2.56%	0.1%	1.25E+01
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	3.65E+03	2.52E+04	1.22E+08	--	0.60%	15.4%	0.53%	2.09E+00
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	4.49E+03	3.10E+04	1.47E+08	--	0.50%	12.5%	0.44%	2.57E+00
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	1.74E+04	1.20E+05	5.30E+08	--	0.14%	3.23%	0.12%	9.93E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	1.10E+04	7.57E+04	3.31E+08	--	0.22%	5.1%	0.20%	6.26E+00

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

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	3.46E+08	5.58E+05	--	--	--	5.57E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	4.25E+08	6.85E+05	--	--	--	6.84E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	1.42E+09	2.30E+06	--	--	--	2.29E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	8.85E+08	1.43E+06	--	--	--	1.43E+03
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	1.63E+08	2.63E+05	--	--	--	2.62E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.97E+08	3.18E+05	--	--	--	3.17E+02
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	7.09E+08	1.14E+06	--	--	--	1.14E+03
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	4.42E+08	7.13E+05	--	--	--	7.12E+02
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	6.72E+08	5.00E+06	--	--	--	4.96E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	8.25E+08	6.14E+06	--	--	--	6.09E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	2.77E+09	2.06E+07	--	--	--	2.04E+04
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	1.72E+09	1.28E+07	--	--	--	1.27E+04
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	3.16E+08	2.35E+06	--	--	--	2.33E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	3.83E+08	2.84E+06	--	--	--	2.82E+03
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	1.38E+09	1.03E+07	--	--	--	1.02E+04
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	8.59E+08	6.39E+06	--	--	--	6.34E+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.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	2.70E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	1.05E-03	7.17E+01	7.51E-03	2.50E+01	3.33E+03
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	2.71E-04	7.17E+01	1.94E-03	2.50E+01	1.29E+04
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	4.29E-04	7.17E+01	3.08E-03	2.50E+01	8.13E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E-01	2.44E-03	7.17E+01	1.75E-02	2.50E+01	1.43E+03
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E-01	1.92E-03	7.17E+01	1.38E-02	2.50E+01	1.81E+03
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E-01	5.43E-04	7.17E+01	3.89E-03	2.50E+01	6.42E+03
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E-01	8.58E-04	7.17E+01	6.15E-03	2.50E+01	4.06E+03
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	1.29E-03	1.87E+02	2.41E-02	2.50E+01	1.04E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	1.05E-03	1.87E+02	1.95E-02	2.50E+01	1.28E+03
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	2.71E-04	1.87E+02	5.06E-03	2.50E+01	4.94E+03
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E-01	4.29E-04	1.87E+02	8.01E-03	2.50E+01	3.12E+03
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E-01	2.44E-03	1.87E+02	4.56E-02	2.50E+01	**5.48E+02**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E-01	1.92E-03	1.87E+02	3.59E-02	2.50E+01	**6.96E+02**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E-01	5.43E-04	1.87E+02	1.01E-02	2.50E+01	2.47E+03
Max	Ground	Not applicable	High Boom	Berry - child	1.00E-01	8.58E-04	1.87E+02	1.60E-02	2.50E+01	1.56E+03
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	1.29E-03	7.17E+01	9.25E-03	2.50E+01	2.70E+03
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	1.05E-03	7.17E+01	7.51E-03	2.50E+01	3.33E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	2.71E-04	7.17E+01	1.94E-03	2.50E+01	1.29E+04
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	4.29E-04	7.17E+01	3.08E-03	2.50E+01	8.13E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E-01	2.44E-03	7.17E+01	1.75E-02	2.50E+01	1.43E+03
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E-01	1.92E-03	7.17E+01	1.38E-02	2.50E+01	1.81E+03
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E-01	5.43E-04	7.17E+01	3.89E-03	2.50E+01	6.42E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E-01	8.58E-04	7.17E+01	6.15E-03	2.50E+01	4.06E+03
Typical	Aerial	Non-Forested	Plane	Angler	1.00E-01	1.29E-03	7.17E+01	9.25E-03	2.50E+01	2.70E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	1.05E-03	7.17E+01	7.51E-03	2.50E+01	3.33E+03
Typical	Ground	Not applicable	Low Boom	Angler	1.00E-01	2.71E-04	7.17E+01	1.94E-03	2.50E+01	1.29E+04
Typical	Ground	Not applicable	High Boom	Angler	1.00E-01	4.29E-04	7.17E+01	3.08E-03	2.50E+01	8.13E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E-01	2.44E-03	7.17E+01	1.75E-02	2.50E+01	1.43E+03
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E-01	1.92E-03	7.17E+01	1.38E-02	2.50E+01	1.81E+03
Max	Ground	Not applicable	Low Boom	Angler	1.00E-01	5.43E-04	7.17E+01	3.89E-03	2.50E+01	6.42E+03
Max	Ground	Not applicable	High Boom	Angler	1.00E-01	8.58E-04	7.17E+01	6.15E-03	2.50E+01	4.06E+03

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	1.04E+03
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	1.05E-03	1.87E+02	1.95E-02	2.50E+01	1.28E+03
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E-01	2.71E-04	1.87E+02	5.06E-03	2.50E+01	4.94E+03
Typical	Ground	Not applicable	High Boom	Res-child	1.00E-01	4.29E-04	1.87E+02	8.01E-03	2.50E+01	3.12E+03
Max	Aerial	Non-Forested	Plane	Res-child	1.00E-01	2.44E-03	1.87E+02	4.56E-02	2.50E+01	**5.48E+02**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E-01	1.92E-03	1.87E+02	3.59E-02	2.50E+01	**6.96E+02**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E-01	5.43E-04	1.87E+02	1.01E-02	2.50E+01	2.47E+03
Max	Ground	Not applicable	High Boom	Res-child	1.00E-01	8.58E-04	1.87E+02	1.60E-02	2.50E+01	1.56E+03
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	1.29E-03	7.17E+01	9.25E-03	2.50E+01	2.70E+03
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	1.05E-03	7.17E+01	7.51E-03	2.50E+01	3.33E+03
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	2.71E-04	7.17E+01	1.94E-03	2.50E+01	1.29E+04
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E-01	4.29E-04	7.17E+01	3.08E-03	2.50E+01	8.13E+03
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E-01	2.44E-03	7.17E+01	1.75E-02	2.50E+01	1.43E+03
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E-01	1.92E-03	7.17E+01	1.38E-02	2.50E+01	1.81E+03
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E-01	5.43E-04	7.17E+01	3.89E-03	2.50E+01	6.42E+03
Max	Ground	Not applicable	High Boom	Res-adult	1.00E-01	8.58E-04	7.17E+01	6.15E-03	2.50E+01	4.06E+03
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	1.29E-03	1.87E+02	2.41E-02	2.50E+01	1.04E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	1.05E-03	1.87E+02	1.95E-02	2.50E+01	1.28E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	2.71E-04	1.87E+02	5.06E-03	2.50E+01	4.94E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	4.29E-04	1.87E+02	8.01E-03	2.50E+01	3.12E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E-01	2.44E-03	1.87E+02	4.56E-02	2.50E+01	**5.48E+02**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E-01	1.92E-03	1.87E+02	3.59E-02	2.50E+01	**6.96E+02**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E-01	5.43E-04	1.87E+02	1.01E-02	2.50E+01	2.47E+03
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E-01	8.58E-04	1.87E+02	1.60E-02	2.50E+01	1.56E+03
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	1.29E-03	7.17E+01	9.25E-03	2.50E+01	2.70E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	1.05E-03	7.17E+01	7.51E-03	2.50E+01	3.33E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	2.71E-04	7.17E+01	1.94E-03	2.50E+01	1.29E+04
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	4.29E-04	7.17E+01	3.08E-03	2.50E+01	8.13E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E-01	2.44E-03	7.17E+01	1.75E-02	2.50E+01	1.43E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E-01	1.92E-03	7.17E+01	1.38E-02	2.50E+01	1.81E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E-01	5.43E-04	7.17E+01	3.89E-03	2.50E+01	6.42E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E-01	8.58E-04	7.17E+01	6.15E-03	2.50E+01	4.06E+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, Short-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)	Short-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	2.50E+01	3.85E+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	2.50E+01	4.74E+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	2.50E+01	1.83E+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	2.50E+01	1.16E+05
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	2.50E+01	2.03E+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	2.50E+01	2.58E+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	2.50E+01	9.15E+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	2.50E+01	5.79E+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	2.50E+01	1.28E+04
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	2.50E+01	1.58E+04
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	2.50E+01	6.10E+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	2.50E+01	3.85E+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	2.50E+01	6.77E+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	2.50E+01	8.59E+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	2.50E+01	3.04E+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	2.50E+01	1.93E+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	2.50E+01	2.24E+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	2.50E+01	2.76E+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	2.50E+01	1.07E+05
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	2.50E+01	6.74E+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	2.50E+01	1.18E+04
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	2.50E+01	1.50E+04
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	2.50E+01	5.32E+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	2.50E+01	3.37E+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	2.50E+01	3.85E+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	2.50E+01	4.74E+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	2.50E+01	1.83E+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	2.50E+01	1.16E+05
Max	Aerial	Non-Forested	Plane	Angler	2.50E-01	1.00E-01	2.44E-03	6.11E-04	2.01E+01	1.23E-03	2.50E+01	2.03E+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	2.50E+01	2.58E+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	2.50E+01	9.15E+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	2.50E+01	5.79E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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	2.50E+01	3.26E+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	2.50E+01	4.02E+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	2.50E+01	1.55E+04
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	2.50E+01	9.81E+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	2.50E+01	1.72E+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	2.50E+01	2.19E+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	2.50E+01	7.75E+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	2.50E+01	4.91E+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	2.50E+01	5.71E+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	2.50E+01	7.03E+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	2.50E+01	2.72E+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	2.50E+01	1.72E+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	2.50E+01	3.01E+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	2.50E+01	3.83E+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	2.50E+01	1.36E+04
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	2.50E+01	8.58E+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	2.50E+01	1.07E+04
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	2.50E+01	1.32E+04
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	2.50E+01	5.08E+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	2.50E+01	3.21E+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	2.50E+01	5.64E+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	2.50E+01	7.16E+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	2.50E+01	2.54E+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	2.50E+01	1.61E+04
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	2.50E+01	1.87E+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	2.50E+01	2.30E+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	2.50E+01	8.89E+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	2.50E+01	5.62E+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	2.50E+01	9.86E+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	2.50E+01	1.25E+04
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	2.50E+01	4.43E+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	2.50E+01	2.81E+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, Short-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)	Short-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)	Short-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	2.50E+01	1.20E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	1.34E-02	1.00E-03	4.40E+02	1.73E-07	2.50E+01	1.44E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	3.68E-03	1.00E-03	4.40E+02	4.75E-08	2.50E+01	5.26E+08
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	5.91E-03	1.00E-03	4.40E+02	7.63E-08	2.50E+01	3.28E+08
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.93E-05	3.15E-02	1.00E-03	4.40E+02	4.07E-07	2.50E+01	6.15E+07
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.93E-05	2.59E-02	1.00E-03	4.40E+02	3.34E-07	2.50E+01	7.49E+07
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.93E-05	7.36E-03	1.00E-03	4.40E+02	9.50E-08	2.50E+01	2.63E+08
Max	Ground	Not applicable	High Boom	Swimmer-child	2.93E-05	1.18E-02	1.00E-03	4.40E+02	1.53E-07	2.50E+01	1.64E+08
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	1.62E-02	1.00E-03	2.26E+02	1.08E-07	2.50E+01	2.32E+08
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	1.34E-02	1.00E-03	2.26E+02	8.93E-08	2.50E+01	2.80E+08
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	3.68E-03	1.00E-03	2.26E+02	2.45E-08	2.50E+01	1.02E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	5.91E-03	1.00E-03	2.26E+02	3.93E-08	2.50E+01	6.37E+08
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.93E-05	3.15E-02	1.00E-03	2.26E+02	2.09E-07	2.50E+01	1.19E+08
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.93E-05	2.59E-02	1.00E-03	2.26E+02	1.72E-07	2.50E+01	1.46E+08
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.93E-05	7.36E-03	1.00E-03	2.26E+02	4.89E-08	2.50E+01	5.11E+08
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.93E-05	1.18E-02	1.00E-03	2.26E+02	7.85E-08	2.50E+01	3.18E+08
Typical	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	1.62E-02	1.00E-03	1.14E+03	5.43E-07	2.50E+01	4.60E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	1.34E-02	1.00E-03	1.14E+03	4.51E-07	2.50E+01	5.54E+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	2.50E+01	2.02E+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	2.50E+01	1.26E+08
Max	Aerial	Non-Forested	Plane	N.American-child	2.93E-05	3.15E-02	1.00E-03	1.14E+03	1.06E-06	2.50E+01	2.36E+07
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.93E-05	2.59E-02	1.00E-03	1.14E+03	8.68E-07	2.50E+01	2.88E+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	2.50E+01	1.01E+08
Max	Ground	Not applicable	High Boom	N.American-child	2.93E-05	1.18E-02	1.00E-03	1.14E+03	3.97E-07	2.50E+01	6.30E+07
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	1.62E-02	1.00E-03	5.89E+02	2.80E-07	2.50E+01	8.94E+07
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	1.34E-02	1.00E-03	5.89E+02	2.32E-07	2.50E+01	1.08E+08
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.93E-05	3.68E-03	1.00E-03	5.89E+02	6.36E-08	2.50E+01	3.93E+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	2.50E+01	2.45E+08
Max	Aerial	Non-Forested	Plane	N.American-adult	2.93E-05	3.15E-02	1.00E-03	5.89E+02	5.44E-07	2.50E+01	4.60E+07
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.93E-05	2.59E-02	1.00E-03	5.89E+02	4.47E-07	2.50E+01	5.60E+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	2.50E+01	1.97E+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	2.50E+01	1.22E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Short-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	2.50E+01	1.93E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.34E-02	8.00E-03	1.08E-04	2.50E+01	2.33E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	3.68E-03	8.00E-03	2.94E-05	2.50E+01	8.49E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	5.91E-03	8.00E-03	4.73E-05	2.50E+01	5.29E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	3.15E-02	8.00E-03	2.52E-04	2.50E+01	9.92E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.59E-02	8.00E-03	2.07E-04	2.50E+01	1.21E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	7.36E-03	8.00E-03	5.89E-05	2.50E+01	4.24E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	1.18E-02	8.00E-03	9.46E-05	2.50E+01	2.64E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.62E-02	8.93E-04	1.45E-05	2.50E+01	1.73E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.34E-02	8.93E-04	1.20E-05	2.50E+01	2.08E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	3.68E-03	8.93E-04	3.29E-06	2.50E+01	7.60E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	5.91E-03	8.93E-04	5.28E-06	2.50E+01	4.74E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	3.15E-02	8.93E-04	2.81E-05	2.50E+01	8.89E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.59E-02	8.93E-04	2.31E-05	2.50E+01	1.08E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	7.36E-03	8.93E-04	6.58E-06	2.50E+01	3.80E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.18E-02	8.93E-04	1.06E-05	2.50E+01	2.37E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute 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	2.50E-02	1.6%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.34E-02	2.52E-02	3.38E-04	2.50E-02	1.4%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	3.68E-03	2.52E-02	9.26E-05	2.50E-02	0.37%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	5.91E-03	2.52E-02	1.49E-04	2.50E-02	0.59%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	3.15E-02	2.52E-02	7.92E-04	2.50E-02	3.2%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.59E-02	2.52E-02	6.50E-04	2.50E-02	2.6%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	7.36E-03	2.52E-02	1.85E-04	2.50E-02	0.74%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.18E-02	2.52E-02	2.97E-04	2.50E-02	1.2%
Typical	Aerial	Non-Forested	Plane	Berry - child	1.62E-02	6.67E-02	1.08E-03	2.50E-02	4.3%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.34E-02	6.67E-02	8.96E-04	2.50E-02	3.6%
Typical	Ground	Not applicable	Low Boom	Berry - child	3.68E-03	6.67E-02	2.45E-04	2.50E-02	0.98%
Typical	Ground	Not applicable	High Boom	Berry - child	5.91E-03	6.67E-02	3.94E-04	2.50E-02	1.6%
Max	Aerial	Non-Forested	Plane	Berry - child	3.15E-02	6.67E-02	2.10E-03	2.50E-02	8.4%
Max	Aerial	Non-Forested	Helicopter	Berry - child	2.59E-02	6.67E-02	1.72E-03	2.50E-02	6.9%
Max	Ground	Not applicable	Low Boom	Berry - child	7.36E-03	6.67E-02	4.91E-04	2.50E-02	2.0%
Max	Ground	Not applicable	High Boom	Berry - child	1.18E-02	6.67E-02	7.88E-04	2.50E-02	3.2%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.62E-02	2.52E-02	4.07E-04	2.50E-02	1.6%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.34E-02	2.52E-02	3.38E-04	2.50E-02	1.4%
Typical	Ground	Not applicable	Low Boom	Berry - adult	3.68E-03	2.52E-02	9.26E-05	2.50E-02	0.37%
Typical	Ground	Not applicable	High Boom	Berry - adult	5.91E-03	2.52E-02	1.49E-04	2.50E-02	0.59%
Max	Aerial	Non-Forested	Plane	Berry - adult	3.15E-02	2.52E-02	7.92E-04	2.50E-02	3.2%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	2.59E-02	2.52E-02	6.50E-04	2.50E-02	2.6%
Max	Ground	Not applicable	Low Boom	Berry - adult	7.36E-03	2.52E-02	1.85E-04	2.50E-02	0.74%
Max	Ground	Not applicable	High Boom	Berry - adult	1.18E-02	2.52E-02	2.97E-04	2.50E-02	1.2%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute 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	2.50E-02	1.6%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.34E-02	2.52E-02	3.38E-04	2.50E-02	1.4%
Typical	Ground	Not applicable	Low Boom	Angler	3.68E-03	2.52E-02	9.26E-05	2.50E-02	0.37%
Typical	Ground	Not applicable	High Boom	Angler	5.91E-03	2.52E-02	1.49E-04	2.50E-02	0.59%
Max	Aerial	Non-Forested	Plane	Angler	3.15E-02	2.52E-02	7.92E-04	2.50E-02	3.2%
Max	Aerial	Non-Forested	Helicopter	Angler	2.59E-02	2.52E-02	6.50E-04	2.50E-02	2.6%
Max	Ground	Not applicable	Low Boom	Angler	7.36E-03	2.52E-02	1.85E-04	2.50E-02	0.74%
Max	Ground	Not applicable	High Boom	Angler	1.18E-02	2.52E-02	2.97E-04	2.50E-02	1.2%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.62E-02	3.33E-02	5.40E-04	2.50E-02	2.2%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.34E-02	3.33E-02	4.48E-04	2.50E-02	1.8%
Typical	Ground	Not applicable	Low Boom	N.American - child	3.68E-03	3.33E-02	1.23E-04	2.50E-02	0.49%
Typical	Ground	Not applicable	High Boom	N.American - child	5.91E-03	3.33E-02	1.97E-04	2.50E-02	0.79%
Max	Aerial	Non-Forested	Plane	N.American - child	3.15E-02	3.33E-02	1.05E-03	2.50E-02	4.2%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.59E-02	3.33E-02	8.62E-04	2.50E-02	3.4%
Max	Ground	Not applicable	Low Boom	N.American - child	7.36E-03	3.33E-02	2.45E-04	2.50E-02	0.98%
Max	Ground	Not applicable	High Boom	N.American - child	1.18E-02	3.33E-02	3.94E-04	2.50E-02	1.6%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.62E-02	1.26E-02	2.04E-04	2.50E-02	0.81%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.34E-02	1.26E-02	1.69E-04	2.50E-02	0.68%
Typical	Ground	Not applicable	Low Boom	N.American - adult	3.68E-03	1.26E-02	4.63E-05	2.50E-02	0.19%
Typical	Ground	Not applicable	High Boom	N.American - adult	5.91E-03	1.26E-02	7.44E-05	2.50E-02	0.30%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.15E-02	1.26E-02	3.96E-04	2.50E-02	1.6%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.59E-02	1.26E-02	3.25E-04	2.50E-02	1.3%
Max	Ground	Not applicable	Low Boom	N.American - adult	7.36E-03	1.26E-02	9.26E-05	2.50E-02	0.37%
Max	Ground	Not applicable	High Boom	N.American - adult	1.18E-02	1.26E-02	1.49E-04	2.50E-02	0.59%

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, Short-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	Short-Term Water Concentra (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)	Acute 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	2.50E-02	0.050%
Typical	Aerial	Non-Forested	Helicopter	Angler	1.34E-02	1.00E+00	1.00E-06	7.67E+02	1.03E-05	2.50E-02	0.041%
Typical	Ground	Not applicable	Low Boom	Angler	3.68E-03	1.00E+00	1.00E-06	7.67E+02	2.82E-06	2.50E-02	0.011%
Typical	Ground	Not applicable	High Boom	Angler	5.91E-03	1.00E+00	1.00E-06	7.67E+02	4.54E-06	2.50E-02	0.018%
Max	Aerial	Non-Forested	Plane	Angler	3.15E-02	1.00E+00	1.00E-06	7.67E+02	2.42E-05	2.50E-02	0.10%
Max	Aerial	Non-Forested	Helicopter	Angler	2.59E-02	1.00E+00	1.00E-06	7.67E+02	1.98E-05	2.50E-02	0.079%
Max	Ground	Not applicable	Low Boom	Angler	7.36E-03	1.00E+00	1.00E-06	7.67E+02	5.65E-06	2.50E-02	0.023%
Max	Ground	Not applicable	High Boom	Angler	1.18E-02	1.00E+00	1.00E-06	7.67E+02	9.07E-06	2.50E-02	0.036%
Typical	Aerial	Non-Forested	Plane	N.American - child	1.62E-02	1.00E+00	1.00E-06	1.11E+04	1.80E-04	2.50E-02	0.72%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.34E-02	1.00E+00	1.00E-06	1.11E+04	1.50E-04	2.50E-02	0.60%
Typical	Ground	Not applicable	Low Boom	N.American - child	3.68E-03	1.00E+00	1.00E-06	1.11E+04	4.10E-05	2.50E-02	0.16%
Typical	Ground	Not applicable	High Boom	N.American - child	5.91E-03	1.00E+00	1.00E-06	1.11E+04	6.58E-05	2.50E-02	0.26%
Max	Aerial	Non-Forested	Plane	N.American - child	3.15E-02	1.00E+00	1.00E-06	1.11E+04	3.51E-04	2.50E-02	1.4%
Max	Aerial	Non-Forested	Helicopter	N.American - child	2.59E-02	1.00E+00	1.00E-06	1.11E+04	2.88E-04	2.50E-02	1.2%
Max	Ground	Not applicable	Low Boom	N.American - child	7.36E-03	1.00E+00	1.00E-06	1.11E+04	8.20E-05	2.50E-02	0.33%
Max	Ground	Not applicable	High Boom	N.American - child	1.18E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	2.50E-02	0.53%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.62E-02	1.00E+00	1.00E-06	1.11E+04	1.80E-04	2.50E-02	0.72%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.34E-02	1.00E+00	1.00E-06	1.11E+04	1.50E-04	2.50E-02	0.60%
Typical	Ground	Not applicable	Low Boom	N.American - adult	3.68E-03	1.00E+00	1.00E-06	1.11E+04	4.10E-05	2.50E-02	0.16%
Typical	Ground	Not applicable	High Boom	N.American - adult	5.91E-03	1.00E+00	1.00E-06	1.11E+04	6.58E-05	2.50E-02	0.26%
Max	Aerial	Non-Forested	Plane	N.American - adult	3.15E-02	1.00E+00	1.00E-06	1.11E+04	3.51E-04	2.50E-02	1.4%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	2.59E-02	1.00E+00	1.00E-06	1.11E+04	2.88E-04	2.50E-02	1.2%
Max	Ground	Not applicable	Low Boom	N.American - adult	7.36E-03	1.00E+00	1.00E-06	1.11E+04	8.20E-05	2.50E-02	0.33%
Max	Ground	Not applicable	High Boom	N.American - adult	1.18E-02	1.00E+00	1.00E-06	1.11E+04	1.32E-04	2.50E-02	0.53%

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, Short-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)	Acute 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	2.50E-02	20.6%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.05E-03	4.00E+00	4.19E-03	2.50E-02	16.8%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.71E-04	4.00E+00	1.08E-03	2.50E-02	4.337%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	4.29E-04	4.00E+00	1.72E-03	2.50E-02	6.9%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	2.44E-03	4.00E+00	9.77E-03	2.50E-02	39.1%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.92E-03	4.00E+00	7.70E-03	2.50E-02	30.8%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	5.43E-04	4.00E+00	2.17E-03	2.50E-02	8.7%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	8.58E-04	4.00E+00	3.43E-03	2.50E-02	13.7%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	1.29E-03	4.03E+00	5.19E-03	2.50E-02	20.8%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.05E-03	4.03E+00	4.22E-03	2.50E-02	16.9%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.71E-04	4.03E+00	1.09E-03	2.50E-02	4.36%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	4.29E-04	4.03E+00	1.73E-03	2.50E-02	6.9%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	2.44E-03	4.03E+00	9.83E-03	2.50E-02	39.3%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.92E-03	4.03E+00	7.75E-03	2.50E-02	31.0%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	5.43E-04	4.03E+00	2.19E-03	2.50E-02	8.7%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	8.58E-04	4.03E+00	3.45E-03	2.50E-02	13.8%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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)	Acute 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	2.50E-02	20.6%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.05E-03	4.00E+00	4.19E-03	2.50E-02	16.8%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.71E-04	4.00E+00	1.08E-03	2.50E-02	4.337%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	4.29E-04	4.00E+00	1.72E-03	2.50E-02	6.9%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	2.44E-03	4.00E+00	9.77E-03	2.50E-02	39.1%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.92E-03	4.00E+00	7.70E-03	2.50E-02	30.8%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	5.43E-04	4.00E+00	2.17E-03	2.50E-02	8.7%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	8.58E-04	4.00E+00	3.43E-03	2.50E-02	13.7%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	1.29E-03	4.03E+00	5.19E-03	2.50E-02	20.8%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.05E-03	4.03E+00	4.22E-03	2.50E-02	16.9%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.71E-04	4.03E+00	1.09E-03	2.50E-02	4.36%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	4.29E-04	4.03E+00	1.73E-03	2.50E-02	6.9%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	2.44E-03	4.03E+00	9.83E-03	2.50E-02	39.3%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.92E-03	4.03E+00	7.75E-03	2.50E-02	31.0%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	5.43E-04	4.03E+00	2.19E-03	2.50E-02	8.7%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	8.58E-04	4.03E+00	3.45E-03	2.50E-02	13.8%

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, Short-term
Herbicide: 2,4-D Aquatic (Submerged/Volume of Water; Liquid)
Program: Aquatic Sites

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	2.70E+03	3.85E+04	--	--	1.6%	--	--	2.43E+00
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	3.33E+03	4.74E+04	--	--	1.4%	--	--	2.99E+00
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	1.29E+04	1.83E+05	--	--	0.37%	--	--	1.15E+01
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	8.13E+03	1.16E+05	--	--	0.59%	--	--	7.27E+00
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+03	1.43E+03	2.03E+04	--	--	3.2%	--	--	1.28E+00
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+03	1.81E+03	2.58E+04	--	--	2.6%	--	--	1.62E+00
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+03	6.42E+03	9.15E+04	--	--	0.74%	--	--	5.74E+00
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+03	4.06E+03	5.79E+04	--	--	1.2%	--	--	3.63E+00
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	1.04E+03	1.28E+04	--	--	4.3%	20.6%	--	**7.75E-01**
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	1.28E+03	1.58E+04	--	--	3.6%	16.8%	--	**9.54E-01**
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	4.94E+03	6.10E+04	--	--	0.98%	4.3%	--	3.68E+00
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+03	3.12E+03	3.85E+04	--	--	1.58%	6.9%	--	2.32E+00
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+03	**5.48E+02**	6.77E+03	--	--	8.4%	39.1%	--	**4.09E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+03	**6.96E+02**	8.59E+03	--	--	6.9%	30.8%	--	**5.18E-01**
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+03	2.47E+03	3.04E+04	--	--	2.0%	8.7%	--	1.83E+00
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+03	1.56E+03	1.93E+04	--	--	3.2%	13.7%	--	1.16E+00
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	2.70E+03	2.24E+04	--	--	1.6%	20.8%	--	1.57E+00
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	3.33E+03	2.76E+04	--	--	1.4%	16.9%	--	1.93E+00
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	1.29E+04	1.07E+05	--	--	0.37%	4.4%	--	7.44E+00
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	8.13E+03	6.74E+04	--	--	0.59%	6.9%	--	4.70E+00
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+03	1.43E+03	1.18E+04	--	--	3.2%	39.3%	--	**8.26E-01**
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+03	1.81E+03	1.50E+04	--	--	2.6%	31.0%	--	1.05E+00
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+03	6.42E+03	5.32E+04	--	--	0.74%	8.7%	--	3.71E+00
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+03	4.06E+03	3.37E+04	--	--	1.2%	13.8%	--	2.35E+00
Typical	Aerial	Non-Forested	Plane	Angler	1.00E+03	2.70E+03	3.85E+04	--	--	1.6%	--	0.050%	2.42E+00
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	3.33E+03	4.74E+04	--	--	1.4%	--	0.041%	2.98E+00
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+03	1.29E+04	1.83E+05	--	--	0.37%	--	0.011%	1.15E+01
Typical	Ground	Not applicable	High Boom	Angler	1.00E+03	8.13E+03	1.16E+05	--	--	0.59%	--	0.018%	7.26E+00
Max	Aerial	Non-Forested	Plane	Angler	1.00E+03	1.43E+03	2.03E+04	--	--	3.2%	--	0.10%	1.28E+00
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+03	1.81E+03	2.58E+04	--	--	2.6%	--	0.079%	1.62E+00
Max	Ground	Not applicable	Low Boom	Angler	1.00E+03	6.42E+03	9.15E+04	--	--	0.74%	--	0.023%	5.74E+00
Max	Ground	Not applicable	High Boom	Angler	1.00E+03	4.06E+03	5.79E+04	--	--	1.2%	--	0.036%	3.63E+00

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

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	1.04E+03	3.26E+03	--	--	--	--	--	**7.87E-01**
Typical	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	1.28E+03	4.02E+03	--	--	--	--	--	**9.70E-01**
Typical	Ground	Not applicable	Low Boom	Res-child	1.00E+03	4.94E+03	1.55E+04	--	--	--	--	--	3.75E+00
Typical	Ground	Not applicable	High Boom	Res-child	1.00E+03	3.12E+03	9.81E+03	--	--	--	--	--	2.37E+00
Max	Aerial	Non-Forested	Plane	Res-child	1.00E+03	**5.48E+02**	1.72E+03	--	--	--	--	--	**4.16E-01**
Max	Aerial	Non-Forested	Helicopter	Res-child	1.00E+03	**6.96E+02**	2.19E+03	--	--	--	--	--	**5.28E-01**
Max	Ground	Not applicable	Low Boom	Res-child	1.00E+03	2.47E+03	7.75E+03	--	--	--	--	--	1.87E+00
Max	Ground	Not applicable	High Boom	Res-child	1.00E+03	1.56E+03	4.91E+03	--	--	--	--	--	1.18E+00
Typical	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	2.70E+03	5.71E+03	--	--	--	--	--	1.83E+00
Typical	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	3.33E+03	7.03E+03	--	--	--	--	--	2.26E+00
Typical	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	1.29E+04	2.72E+04	--	--	--	--	--	8.73E+00
Typical	Ground	Not applicable	High Boom	Res-adult	1.00E+03	8.13E+03	1.72E+04	--	--	--	--	--	5.52E+00
Max	Aerial	Non-Forested	Plane	Res-adult	1.00E+03	1.43E+03	3.01E+03	--	--	--	--	--	**9.69E-01**
Max	Aerial	Non-Forested	Helicopter	Res-adult	1.00E+03	1.81E+03	3.83E+03	--	--	--	--	--	1.23E+00
Max	Ground	Not applicable	Low Boom	Res-adult	1.00E+03	6.42E+03	1.36E+04	--	--	--	--	--	4.36E+00
Max	Ground	Not applicable	High Boom	Res-adult	1.00E+03	4.06E+03	8.58E+03	--	--	--	--	--	2.76E+00
Typical	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	1.04E+03	1.07E+04	4.60E+07	--	2.2%	20.6%	0.72%	**7.74E-01**
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	1.28E+03	1.32E+04	5.54E+07	--	1.8%	16.8%	0.60%	**9.53E-01**
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	4.94E+03	5.08E+04	2.02E+08	--	0.49%	4.337%	0.16%	3.68E+00
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	3.12E+03	3.21E+04	1.26E+08	--	0.79%	6.9%	0.26%	2.32E+00
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+03	**5.48E+02**	5.64E+03	2.36E+07	--	4.2%	39.1%	1.4%	**4.08E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+03	**6.96E+02**	7.16E+03	2.88E+07	--	3.4%	30.8%	1.2%	**5.18E-01**
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+03	2.47E+03	2.54E+04	1.01E+08	--	0.98%	8.7%	0.33%	1.83E+00
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+03	1.56E+03	1.61E+04	6.30E+07	--	1.6%	13.7%	0.53%	1.16E+00
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	2.70E+03	1.87E+04	8.94E+07	--	0.81%	20.8%	0.72%	1.55E+00
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	3.33E+03	2.30E+04	1.08E+08	--	0.68%	16.9%	0.60%	1.90E+00
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	1.29E+04	8.89E+04	3.93E+08	--	0.19%	4.4%	0.16%	7.35E+00
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	8.13E+03	5.62E+04	2.45E+08	--	0.30%	6.9%	0.26%	4.64E+00
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+03	1.43E+03	9.86E+03	4.60E+07	--	1.6%	39.3%	1.4%	**8.16E-01**
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+03	1.81E+03	1.25E+04	5.60E+07	--	1.3%	31.0%	1.2%	1.04E+00
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+03	6.42E+03	4.43E+04	1.97E+08	--	0.37%	8.7%	0.33%	3.67E+00
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+03	4.06E+03	2.81E+04	1.22E+08	--	0.59%	13.8%	0.53%	2.32E+00

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

						Dermal Exposure Pathways			Incidental Ingestion	Dietary Exposure Pathways			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	1.20E+08	1.93E+05	--	--	--	1.93E+02
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	1.44E+08	2.33E+05	--	--	--	2.32E+02
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	5.26E+08	8.49E+05	--	--	--	8.48E+02
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	3.28E+08	5.29E+05	--	--	--	5.28E+02
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+03	--	--	6.15E+07	9.92E+04	--	--	--	9.91E+01
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+03	--	--	7.49E+07	1.21E+05	--	--	--	1.21E+02
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+03	--	--	2.63E+08	4.24E+05	--	--	--	4.24E+02
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+03	--	--	1.64E+08	2.64E+05	--	--	--	2.64E+02
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	2.32E+08	1.73E+06	--	--	--	1.72E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	2.80E+08	2.08E+06	--	--	--	2.07E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	1.02E+09	7.60E+06	--	--	--	7.55E+03
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	6.37E+08	4.74E+06	--	--	--	4.70E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+03	--	--	1.19E+08	8.89E+05	--	--	--	8.82E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+03	--	--	1.46E+08	1.08E+06	--	--	--	1.07E+03
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+03	--	--	5.11E+08	3.80E+06	--	--	--	3.77E+03
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+03	--	--	3.18E+08	2.37E+06	--	--	--	2.35E+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.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	1.40E-06	6.56E-02	1.00E-03	4.40E+02	4.04E-08	1.04E+02	2.57E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.40E-06	6.55E-02	1.00E-03	4.40E+02	4.04E-08	1.04E+02	2.58E+09
Typical	Aerial	Forested	Plane	Swimmer-child	1.40E-06	6.61E-02	1.00E-03	4.40E+02	4.08E-08	1.04E+02	2.55E+09
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.40E-06	6.52E-02	1.00E-03	4.40E+02	4.02E-08	1.04E+02	2.59E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.40E-06	6.52E-02	1.00E-03	4.40E+02	4.02E-08	1.04E+02	2.59E+09
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.40E-06	6.52E-02	1.00E-03	4.40E+02	4.02E-08	1.04E+02	2.59E+09
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.40E-06	9.25E-02	1.00E-03	4.40E+02	5.70E-08	1.04E+02	1.82E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.40E-06	9.24E-02	1.00E-03	4.40E+02	5.70E-08	1.04E+02	1.83E+09
Max	Aerial	Forested	Plane	Swimmer-child	1.40E-06	9.33E-02	1.00E-03	4.40E+02	5.75E-08	1.04E+02	1.81E+09
Max	Aerial	Forested	Helicopter	Swimmer-child	1.40E-06	9.20E-02	1.00E-03	4.40E+02	5.67E-08	1.04E+02	1.83E+09
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.40E-06	9.19E-02	1.00E-03	4.40E+02	5.67E-08	1.04E+02	1.83E+09
Max	Ground	Not applicable	High Boom	Swimmer-child	1.40E-06	9.20E-02	1.00E-03	4.40E+02	5.67E-08	1.04E+02	1.83E+09
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.40E-06	6.56E-02	1.00E-03	2.26E+02	2.08E-08	1.04E+02	5.00E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.40E-06	6.55E-02	1.00E-03	2.26E+02	2.08E-08	1.04E+02	5.00E+09
Typical	Aerial	Forested	Plane	Swimmer-adult	1.40E-06	6.61E-02	1.00E-03	2.26E+02	2.10E-08	1.04E+02	4.96E+09
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.40E-06	6.52E-02	1.00E-03	2.26E+02	2.07E-08	1.04E+02	5.03E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.40E-06	6.52E-02	1.00E-03	2.26E+02	2.07E-08	1.04E+02	5.03E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.40E-06	6.52E-02	1.00E-03	2.26E+02	2.07E-08	1.04E+02	5.03E+09
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.40E-06	9.25E-02	1.00E-03	2.26E+02	2.93E-08	1.04E+02	3.54E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.40E-06	9.24E-02	1.00E-03	2.26E+02	2.93E-08	1.04E+02	3.55E+09
Max	Aerial	Forested	Plane	Swimmer-adult	1.40E-06	9.33E-02	1.00E-03	2.26E+02	2.96E-08	1.04E+02	3.52E+09
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.40E-06	9.20E-02	1.00E-03	2.26E+02	2.92E-08	1.04E+02	3.57E+09
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.40E-06	9.19E-02	1.00E-03	2.26E+02	2.92E-08	1.04E+02	3.57E+09
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.40E-06	9.20E-02	1.00E-03	2.26E+02	2.92E-08	1.04E+02	3.56E+09
Typical	Aerial	Non-Forested	Plane	N.American-child	1.40E-06	6.56E-02	1.00E-03	1.14E+03	1.05E-07	1.04E+02	9.89E+08
Typical	Aerial	Non-Forested	Helicopter	N.American-child	1.40E-06	6.55E-02	1.00E-03	1.14E+03	1.05E-07	1.04E+02	9.90E+08
Typical	Aerial	Forested	Plane	N.American-child	1.40E-06	6.61E-02	1.00E-03	1.14E+03	1.06E-07	1.04E+02	9.81E+08
Typical	Aerial	Forested	Helicopter	N.American-child	1.40E-06	6.52E-02	1.00E-03	1.14E+03	1.05E-07	1.04E+02	9.95E+08
Typical	Ground	Not applicable	Low Boom	N.American-child	1.40E-06	6.52E-02	1.00E-03	1.14E+03	1.05E-07	1.04E+02	9.95E+08
Typical	Ground	Not applicable	High Boom	N.American-child	1.40E-06	6.52E-02	1.00E-03	1.14E+03	1.05E-07	1.04E+02	9.95E+08
Max	Aerial	Non-Forested	Plane	N.American-child	1.40E-06	9.25E-02	1.00E-03	1.14E+03	1.48E-07	1.04E+02	7.01E+08
Max	Aerial	Non-Forested	Helicopter	N.American-child	1.40E-06	9.24E-02	1.00E-03	1.14E+03	1.48E-07	1.04E+02	7.02E+08
Max	Aerial	Forested	Plane	N.American-child	1.40E-06	9.33E-02	1.00E-03	1.14E+03	1.49E-07	1.04E+02	6.96E+08
Max	Aerial	Forested	Helicopter	N.American-child	1.40E-06	9.20E-02	1.00E-03	1.14E+03	1.47E-07	1.04E+02	7.06E+08
Max	Ground	Not applicable	Low Boom	N.American-child	1.40E-06	9.19E-02	1.00E-03	1.14E+03	1.47E-07	1.04E+02	7.06E+08
Max	Ground	Not applicable	High Boom	N.American-child	1.40E-06	9.20E-02	1.00E-03	1.14E+03	1.47E-07	1.04E+02	7.05E+08

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	1.40E-06	6.56E-02	1.00E-03	5.89E+02	5.41E-08	1.04E+02	1.92E+09
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	1.40E-06	6.55E-02	1.00E-03	5.89E+02	5.40E-08	1.04E+02	1.92E+09
Typical	Aerial	Forested	Plane	N.American-adult	1.40E-06	6.61E-02	1.00E-03	5.89E+02	5.45E-08	1.04E+02	1.91E+09
Typical	Aerial	Forested	Helicopter	N.American-adult	1.40E-06	6.52E-02	1.00E-03	5.89E+02	5.38E-08	1.04E+02	1.93E+09
Typical	Ground	Not applicable	Low Boom	N.American-adult	1.40E-06	6.52E-02	1.00E-03	5.89E+02	5.38E-08	1.04E+02	1.93E+09
Typical	Ground	Not applicable	High Boom	N.American-adult	1.40E-06	6.52E-02	1.00E-03	5.89E+02	5.38E-08	1.04E+02	1.93E+09
Max	Aerial	Non-Forested	Plane	N.American-adult	1.40E-06	9.25E-02	1.00E-03	5.89E+02	7.63E-08	1.04E+02	1.36E+09
Max	Aerial	Non-Forested	Helicopter	N.American-adult	1.40E-06	9.24E-02	1.00E-03	5.89E+02	7.62E-08	1.04E+02	1.36E+09
Max	Aerial	Forested	Plane	N.American-adult	1.40E-06	9.33E-02	1.00E-03	5.89E+02	7.69E-08	1.04E+02	1.35E+09
Max	Aerial	Forested	Helicopter	N.American-adult	1.40E-06	9.20E-02	1.00E-03	5.89E+02	7.58E-08	1.04E+02	1.37E+09
Max	Ground	Not applicable	Low Boom	N.American-adult	1.40E-06	9.19E-02	1.00E-03	5.89E+02	7.58E-08	1.04E+02	1.37E+09
Max	Ground	Not applicable	High Boom	N.American-adult	1.40E-06	9.20E-02	1.00E-03	5.89E+02	7.59E-08	1.04E+02	1.37E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Short-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	6.56E-02	8.00E-03	5.25E-04	1.04E+02	1.98E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	6.55E-02	8.00E-03	5.24E-04	1.04E+02	1.98E+05
Typical	Aerial	Forested	Plane	Swimmer-child	6.61E-02	8.00E-03	5.29E-04	1.04E+02	1.97E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	6.52E-02	8.00E-03	5.22E-04	1.04E+02	1.99E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	6.52E-02	8.00E-03	5.22E-04	1.04E+02	1.99E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	6.52E-02	8.00E-03	5.22E-04	1.04E+02	1.99E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	9.25E-02	8.00E-03	7.40E-04	1.04E+02	1.41E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	9.24E-02	8.00E-03	7.39E-04	1.04E+02	1.41E+05
Max	Aerial	Forested	Plane	Swimmer-child	9.33E-02	8.00E-03	7.46E-04	1.04E+02	1.39E+05
Max	Aerial	Forested	Helicopter	Swimmer-child	9.20E-02	8.00E-03	7.36E-04	1.04E+02	1.41E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	9.19E-02	8.00E-03	7.36E-04	1.04E+02	1.41E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	9.20E-02	8.00E-03	7.36E-04	1.04E+02	1.41E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	6.56E-02	8.93E-04	5.86E-05	1.04E+02	1.78E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	6.55E-02	8.93E-04	5.85E-05	1.04E+02	1.78E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	6.61E-02	8.93E-04	5.91E-05	1.04E+02	1.76E+06
Typical	Aerial	Forested	Helicopter	Swimmer-adult	6.52E-02	8.93E-04	5.82E-05	1.04E+02	1.79E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	6.52E-02	8.93E-04	5.82E-05	1.04E+02	1.79E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	6.52E-02	8.93E-04	5.83E-05	1.04E+02	1.79E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	9.25E-02	8.93E-04	8.26E-05	1.04E+02	1.26E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	9.24E-02	8.93E-04	8.25E-05	1.04E+02	1.26E+06
Max	Aerial	Forested	Plane	Swimmer-adult	9.33E-02	8.93E-04	8.33E-05	1.04E+02	1.25E+06
Max	Aerial	Forested	Helicopter	Swimmer-adult	9.20E-02	8.93E-04	8.21E-05	1.04E+02	1.27E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	9.19E-02	8.93E-04	8.21E-05	1.04E+02	1.27E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	9.20E-02	8.93E-04	8.22E-05	1.04E+02	1.27E+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, Short-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	Short-Term Water Concentration Cw (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	6.56E-02	2.52E-02	1.65E-03	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	6.55E-02	2.52E-02	1.65E-03	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	6.61E-02	2.52E-02	1.66E-03	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	6.52E-02	2.52E-02	1.64E-03	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	6.52E-02	2.52E-02	1.64E-03	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	6.52E-02	2.52E-02	1.64E-03	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	9.25E-02	2.52E-02	2.33E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	9.24E-02	2.52E-02	2.32E-03	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	9.33E-02	2.52E-02	2.35E-03	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	9.20E-02	2.52E-02	2.31E-03	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	9.19E-02	2.52E-02	2.31E-03	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	9.20E-02	2.52E-02	2.31E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	6.56E-02	6.67E-02	4.37E-03	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	6.55E-02	6.67E-02	4.37E-03	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	6.61E-02	6.67E-02	4.41E-03	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	6.52E-02	6.67E-02	4.35E-03	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	6.52E-02	6.67E-02	4.35E-03	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	6.52E-02	6.67E-02	4.35E-03	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	9.25E-02	6.67E-02	6.17E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	9.24E-02	6.67E-02	6.16E-03	NA	NC
Max	Aerial	Forested	Plane	Berry - child	9.33E-02	6.67E-02	6.22E-03	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	9.20E-02	6.67E-02	6.13E-03	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	9.19E-02	6.67E-02	6.13E-03	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	9.20E-02	6.67E-02	6.13E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	6.56E-02	2.52E-02	1.65E-03	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	6.55E-02	2.52E-02	1.65E-03	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	6.61E-02	2.52E-02	1.66E-03	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	6.52E-02	2.52E-02	1.64E-03	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	6.52E-02	2.52E-02	1.64E-03	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	6.52E-02	2.52E-02	1.64E-03	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	9.25E-02	2.52E-02	2.33E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	9.24E-02	2.52E-02	2.32E-03	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	9.33E-02	2.52E-02	2.35E-03	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	9.20E-02	2.52E-02	2.31E-03	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	9.19E-02	2.52E-02	2.31E-03	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	9.20E-02	2.52E-02	2.31E-03	NA	NC

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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	Short-Term Water Concentration Cw (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	6.56E-02	2.52E-02	1.65E-03	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	6.55E-02	2.52E-02	1.65E-03	NA	NC
Typical	Aerial	Forested	Plane	Angler	6.61E-02	2.52E-02	1.66E-03	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	6.52E-02	2.52E-02	1.64E-03	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	6.52E-02	2.52E-02	1.64E-03	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	6.52E-02	2.52E-02	1.64E-03	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	9.25E-02	2.52E-02	2.33E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	9.24E-02	2.52E-02	2.32E-03	NA	NC
Max	Aerial	Forested	Plane	Angler	9.33E-02	2.52E-02	2.35E-03	NA	NC
Max	Aerial	Forested	Helicopter	Angler	9.20E-02	2.52E-02	2.31E-03	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	9.19E-02	2.52E-02	2.31E-03	NA	NC
Max	Ground	Not applicable	High Boom	Angler	9.20E-02	2.52E-02	2.31E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - child	6.56E-02	3.33E-02	2.19E-03	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - child	6.55E-02	3.33E-02	2.18E-03	NA	NC
Typical	Aerial	Forested	Plane	N.American - child	6.61E-02	3.33E-02	2.20E-03	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - child	6.52E-02	3.33E-02	2.17E-03	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - child	6.52E-02	3.33E-02	2.17E-03	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - child	6.52E-02	3.33E-02	2.17E-03	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - child	9.25E-02	3.33E-02	3.08E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.24E-02	3.33E-02	3.08E-03	NA	NC
Max	Aerial	Forested	Plane	N.American - child	9.33E-02	3.33E-02	3.11E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.American - child	9.20E-02	3.33E-02	3.07E-03	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - child	9.19E-02	3.33E-02	3.06E-03	NA	NC
Max	Ground	Not applicable	High Boom	N.American - child	9.20E-02	3.33E-02	3.07E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - adult	6.56E-02	1.26E-02	8.25E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	6.55E-02	1.26E-02	8.24E-04	NA	NC
Typical	Aerial	Forested	Plane	N.American - adult	6.61E-02	1.26E-02	8.32E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - adult	6.52E-02	1.26E-02	8.20E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - adult	6.52E-02	1.26E-02	8.20E-04	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - adult	6.52E-02	1.26E-02	8.21E-04	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - adult	9.25E-02	1.26E-02	1.16E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.24E-02	1.26E-02	1.16E-03	NA	NC
Max	Aerial	Forested	Plane	N.American - adult	9.33E-02	1.26E-02	1.17E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.American - adult	9.20E-02	1.26E-02	1.16E-03	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - adult	9.19E-02	1.26E-02	1.16E-03	NA	NC
Max	Ground	Not applicable	High Boom	N.American - adult	9.20E-02	1.26E-02	1.16E-03	NA	NC

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, Short-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	Short-Term Water Concentr (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)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	6.56E-02	1.00E+00	1.00E-06	7.67E+02	5.03E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	6.55E-02	1.00E+00	1.00E-06	7.67E+02	5.03E-05	NA	NC
Typical	Aerial	Forested	Plane	Angler	6.61E-02	1.00E+00	1.00E-06	7.67E+02	5.07E-05	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	6.52E-02	1.00E+00	1.00E-06	7.67E+02	5.00E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	6.52E-02	1.00E+00	1.00E-06	7.67E+02	5.00E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	6.52E-02	1.00E+00	1.00E-06	7.67E+02	5.01E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	9.25E-02	1.00E+00	1.00E-06	7.67E+02	7.10E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	9.24E-02	1.00E+00	1.00E-06	7.67E+02	7.09E-05	NA	NC
Max	Aerial	Forested	Plane	Angler	9.33E-02	1.00E+00	1.00E-06	7.67E+02	7.16E-05	NA	NC
Max	Aerial	Forested	Helicopter	Angler	9.20E-02	1.00E+00	1.00E-06	7.67E+02	7.06E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	9.19E-02	1.00E+00	1.00E-06	7.67E+02	7.06E-05	NA	NC
Max	Ground	Not applicable	High Boom	Angler	9.20E-02	1.00E+00	1.00E-06	7.67E+02	7.06E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - child	6.56E-02	1.00E+00	1.00E-06	1.11E+04	7.30E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - child	6.55E-02	1.00E+00	1.00E-06	1.11E+04	7.29E-04	NA	NC
Typical	Aerial	Forested	Plane	N.American - child	6.61E-02	1.00E+00	1.00E-06	1.11E+04	7.36E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - child	6.52E-02	1.00E+00	1.00E-06	1.11E+04	7.26E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - child	6.52E-02	1.00E+00	1.00E-06	1.11E+04	7.26E-04	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - child	6.52E-02	1.00E+00	1.00E-06	1.11E+04	7.26E-04	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - child	9.25E-02	1.00E+00	1.00E-06	1.11E+04	1.03E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - child	9.24E-02	1.00E+00	1.00E-06	1.11E+04	1.03E-03	NA	NC
Max	Aerial	Forested	Plane	N.American - child	9.33E-02	1.00E+00	1.00E-06	1.11E+04	1.04E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.American - child	9.20E-02	1.00E+00	1.00E-06	1.11E+04	1.02E-03	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - child	9.19E-02	1.00E+00	1.00E-06	1.11E+04	1.02E-03	NA	NC
Max	Ground	Not applicable	High Boom	N.American - child	9.20E-02	1.00E+00	1.00E-06	1.11E+04	1.02E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - adult	6.56E-02	1.00E+00	1.00E-06	1.11E+04	7.30E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	6.55E-02	1.00E+00	1.00E-06	1.11E+04	7.29E-04	NA	NC
Typical	Aerial	Forested	Plane	N.American - adult	6.61E-02	1.00E+00	1.00E-06	1.11E+04	7.36E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - adult	6.52E-02	1.00E+00	1.00E-06	1.11E+04	7.26E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - adult	6.52E-02	1.00E+00	1.00E-06	1.11E+04	7.26E-04	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - adult	6.52E-02	1.00E+00	1.00E-06	1.11E+04	7.26E-04	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - adult	9.25E-02	1.00E+00	1.00E-06	1.11E+04	1.03E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - adult	9.24E-02	1.00E+00	1.00E-06	1.11E+04	1.03E-03	NA	NC
Max	Aerial	Forested	Plane	N.American - adult	9.33E-02	1.00E+00	1.00E-06	1.11E+04	1.04E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.American - adult	9.20E-02	1.00E+00	1.00E-06	1.11E+04	1.02E-03	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - adult	9.19E-02	1.00E+00	1.00E-06	1.11E+04	1.02E-03	NA	NC
Max	Ground	Not applicable	High Boom	N.American - adult	9.20E-02	1.00E+00	1.00E-06	1.11E+04	1.02E-03	NA	NC

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, Short-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)	Acute 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	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	2.80E-05	4.00E+00	1.12E-04	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	7.84E-05	4.00E+00	3.14E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	4.48E-06	4.00E+00	1.79E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	NA	NC
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.11E-04	4.00E+00	4.44E-04	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	2.80E-05	4.03E+00	1.13E-04	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	7.84E-05	4.03E+00	3.16E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	4.48E-06	4.03E+00	1.80E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.11E-04	4.03E+00	4.46E-04	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	NA	NC

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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)	Acute 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	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	2.80E-05	4.00E+00	1.12E-04	NA	NC
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	7.84E-05	4.00E+00	3.14E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	4.48E-06	4.00E+00	1.79E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	5.04E-05	4.00E+00	2.02E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	4.14E-05	4.00E+00	1.66E-04	NA	NC
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.11E-04	4.00E+00	4.44E-04	NA	NC
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	2.80E-05	4.03E+00	1.13E-04	NA	NC
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	7.84E-05	4.03E+00	3.16E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	4.48E-06	4.03E+00	1.80E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	5.04E-05	4.03E+00	2.03E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	NA	NC
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.11E-04	4.03E+00	4.46E-04	NA	NC
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	NA	NC

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 - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	NC	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	NC	--	NC	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
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 - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	9.89E+08	--	NC	NC	NC	9.89E+06
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	9.90E+08	--	NC	NC	NC	9.90E+06
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	9.81E+08	--	NC	NC	NC	9.81E+06
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	9.95E+08	--	NC	NC	NC	9.95E+06
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	9.95E+08	--	NC	NC	NC	9.95E+06
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	9.95E+08	--	NC	NC	NC	9.95E+06
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	7.01E+08	--	NC	NC	NC	7.01E+06
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	7.02E+08	--	NC	NC	NC	7.02E+06
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	6.96E+08	--	NC	NC	NC	6.96E+06
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	7.06E+08	--	NC	NC	NC	7.06E+06
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	7.06E+08	--	NC	NC	NC	7.06E+06
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	7.05E+08	--	NC	NC	NC	7.05E+06
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.92E+09	--	NC	NC	NC	1.92E+07
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.92E+09	--	NC	NC	NC	1.92E+07
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.91E+09	--	NC	NC	NC	1.91E+07
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.93E+09	--	NC	NC	NC	1.93E+07
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.93E+09	--	NC	NC	NC	1.93E+07
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.93E+09	--	NC	NC	NC	1.93E+07
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.36E+09	--	NC	NC	NC	1.36E+07
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.36E+09	--	NC	NC	NC	1.36E+07
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.35E+09	--	NC	NC	NC	1.35E+07
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.37E+09	--	NC	NC	NC	1.37E+07
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.37E+09	--	NC	NC	NC	1.37E+07
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.37E+09	--	NC	NC	NC	1.37E+07

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	2.57E+09	1.98E+05	--	--	--	1.98E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.58E+09	1.98E+05	--	--	--	1.98E+03
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	2.55E+09	1.97E+05	--	--	--	1.97E+03
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.59E+09	1.99E+05	--	--	--	1.99E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	2.59E+09	1.99E+05	--	--	--	1.99E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	2.59E+09	1.99E+05	--	--	--	1.99E+03
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	1.82E+09	1.41E+05	--	--	--	1.41E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.83E+09	1.41E+05	--	--	--	1.41E+03
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	1.81E+09	1.39E+05	--	--	--	1.39E+03
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.83E+09	1.41E+05	--	--	--	1.41E+03
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	1.83E+09	1.41E+05	--	--	--	1.41E+03
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	1.83E+09	1.41E+05	--	--	--	1.41E+03
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.00E+09	1.78E+06	--	--	--	1.78E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.00E+09	1.78E+06	--	--	--	1.78E+04
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	4.96E+09	1.76E+06	--	--	--	1.76E+04
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.03E+09	1.79E+06	--	--	--	1.79E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	5.03E+09	1.79E+06	--	--	--	1.79E+04
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	5.03E+09	1.79E+06	--	--	--	1.78E+04
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	3.54E+09	1.26E+06	--	--	--	1.26E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	3.55E+09	1.26E+06	--	--	--	1.26E+04
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	3.52E+09	1.25E+06	--	--	--	1.25E+04
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	3.57E+09	1.27E+06	--	--	--	1.27E+04
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	3.57E+09	1.27E+06	--	--	--	1.27E+04
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	3.56E+09	1.27E+06	--	--	--	1.27E+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.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.45E-06	2.69E-02	1.00E-03	4.40E+02	2.90E-08	7.50E+01	2.59E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.45E-06	2.68E-02	1.00E-03	4.40E+02	2.89E-08	7.50E+01	2.59E+09
Typical	Aerial	Forested	Plane	Swimmer-child	2.45E-06	2.76E-02	1.00E-03	4.40E+02	2.98E-08	7.50E+01	2.52E+09
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.45E-06	2.65E-02	1.00E-03	4.40E+02	2.85E-08	7.50E+01	2.63E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.45E-06	2.66E-02	1.00E-03	4.40E+02	2.86E-08	7.50E+01	2.62E+09
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.45E-06	2.67E-02	1.00E-03	4.40E+02	2.87E-08	7.50E+01	2.61E+09
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.45E-06	5.40E-02	1.00E-03	4.40E+02	5.82E-08	7.50E+01	1.29E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.45E-06	5.38E-02	1.00E-03	4.40E+02	5.79E-08	7.50E+01	1.29E+09
Max	Aerial	Forested	Plane	Swimmer-child	2.45E-06	5.53E-02	1.00E-03	4.40E+02	5.96E-08	7.50E+01	1.26E+09
Max	Aerial	Forested	Helicopter	Swimmer-child	2.45E-06	5.30E-02	1.00E-03	4.40E+02	5.71E-08	7.50E+01	1.31E+09
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.45E-06	5.31E-02	1.00E-03	4.40E+02	5.73E-08	7.50E+01	1.31E+09
Max	Ground	Not applicable	High Boom	Swimmer-child	2.45E-06	5.33E-02	1.00E-03	4.40E+02	5.75E-08	7.50E+01	1.30E+09
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.45E-06	2.69E-02	1.00E-03	2.26E+02	1.49E-08	7.50E+01	5.02E+09
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.45E-06	2.68E-02	1.00E-03	2.26E+02	1.49E-08	7.50E+01	5.04E+09
Typical	Aerial	Forested	Plane	Swimmer-adult	2.45E-06	2.76E-02	1.00E-03	2.26E+02	1.53E-08	7.50E+01	4.90E+09
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.45E-06	2.65E-02	1.00E-03	2.26E+02	1.47E-08	7.50E+01	5.11E+09
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.45E-06	2.66E-02	1.00E-03	2.26E+02	1.47E-08	7.50E+01	5.09E+09
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.45E-06	2.67E-02	1.00E-03	2.26E+02	1.48E-08	7.50E+01	5.07E+09
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.45E-06	5.40E-02	1.00E-03	2.26E+02	2.99E-08	7.50E+01	2.51E+09
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.45E-06	5.38E-02	1.00E-03	2.26E+02	2.98E-08	7.50E+01	2.52E+09
Max	Aerial	Forested	Plane	Swimmer-adult	2.45E-06	5.53E-02	1.00E-03	2.26E+02	3.07E-08	7.50E+01	2.45E+09
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.45E-06	5.30E-02	1.00E-03	2.26E+02	2.94E-08	7.50E+01	2.55E+09
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.45E-06	5.31E-02	1.00E-03	2.26E+02	2.95E-08	7.50E+01	2.55E+09
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.45E-06	5.33E-02	1.00E-03	2.26E+02	2.96E-08	7.50E+01	2.54E+09
Typical	Aerial	Non-Forested	Plane	N.American-child	2.45E-06	2.69E-02	1.00E-03	1.14E+03	7.54E-08	7.50E+01	9.94E+08
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.45E-06	2.68E-02	1.00E-03	1.14E+03	7.52E-08	7.50E+01	9.97E+08
Typical	Aerial	Forested	Plane	N.American-child	2.45E-06	2.76E-02	1.00E-03	1.14E+03	7.74E-08	7.50E+01	9.69E+08
Typical	Aerial	Forested	Helicopter	N.American-child	2.45E-06	2.65E-02	1.00E-03	1.14E+03	7.42E-08	7.50E+01	1.01E+09
Typical	Ground	Not applicable	Low Boom	N.American-child	2.45E-06	2.66E-02	1.00E-03	1.14E+03	7.44E-08	7.50E+01	1.01E+09
Typical	Ground	Not applicable	High Boom	N.American-child	2.45E-06	2.67E-02	1.00E-03	1.14E+03	7.47E-08	7.50E+01	1.00E+09
Max	Aerial	Non-Forested	Plane	N.American-child	2.45E-06	5.40E-02	1.00E-03	1.14E+03	1.51E-07	7.50E+01	4.96E+08
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.45E-06	5.38E-02	1.00E-03	1.14E+03	1.51E-07	7.50E+01	4.98E+08
Max	Aerial	Forested	Plane	N.American-child	2.45E-06	5.53E-02	1.00E-03	1.14E+03	1.55E-07	7.50E+01	4.84E+08
Max	Aerial	Forested	Helicopter	N.American-child	2.45E-06	5.30E-02	1.00E-03	1.14E+03	1.48E-07	7.50E+01	5.06E+08
Max	Ground	Not applicable	Low Boom	N.American-child	2.45E-06	5.31E-02	1.00E-03	1.14E+03	1.49E-07	7.50E+01	5.04E+08
Max	Ground	Not applicable	High Boom	N.American-child	2.45E-06	5.33E-02	1.00E-03	1.14E+03	1.49E-07	7.50E+01	5.02E+08

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.45E-06	2.69E-02	1.00E-03	5.89E+02	3.88E-08	7.50E+01	1.93E+09
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.45E-06	2.68E-02	1.00E-03	5.89E+02	3.87E-08	7.50E+01	1.94E+09
Typical	Aerial	Forested	Plane	N.American-adult	2.45E-06	2.76E-02	1.00E-03	5.89E+02	3.98E-08	7.50E+01	1.88E+09
Typical	Aerial	Forested	Helicopter	N.American-adult	2.45E-06	2.65E-02	1.00E-03	5.89E+02	3.82E-08	7.50E+01	1.96E+09
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.45E-06	2.66E-02	1.00E-03	5.89E+02	3.83E-08	7.50E+01	1.96E+09
Typical	Ground	Not applicable	High Boom	N.American-adult	2.45E-06	2.67E-02	1.00E-03	5.89E+02	3.85E-08	7.50E+01	1.95E+09
Max	Aerial	Non-Forested	Plane	N.American-adult	2.45E-06	5.40E-02	1.00E-03	5.89E+02	7.78E-08	7.50E+01	9.64E+08
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.45E-06	5.38E-02	1.00E-03	5.89E+02	7.75E-08	7.50E+01	9.67E+08
Max	Aerial	Forested	Plane	N.American-adult	2.45E-06	5.53E-02	1.00E-03	5.89E+02	7.97E-08	7.50E+01	9.41E+08
Max	Aerial	Forested	Helicopter	N.American-adult	2.45E-06	5.30E-02	1.00E-03	5.89E+02	7.63E-08	7.50E+01	9.82E+08
Max	Ground	Not applicable	Low Boom	N.American-adult	2.45E-06	5.31E-02	1.00E-03	5.89E+02	7.66E-08	7.50E+01	9.79E+08
Max	Ground	Not applicable	High Boom	N.American-adult	2.45E-06	5.33E-02	1.00E-03	5.89E+02	7.69E-08	7.50E+01	9.75E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Short-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.69E-02	8.00E-03	2.15E-04	7.50E+01	3.48E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.68E-02	8.00E-03	2.15E-04	7.50E+01	3.49E+05
Typical	Aerial	Forested	Plane	Swimmer-child	2.76E-02	8.00E-03	2.21E-04	7.50E+01	3.39E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.65E-02	8.00E-03	2.12E-04	7.50E+01	3.54E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.66E-02	8.00E-03	2.13E-04	7.50E+01	3.53E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.67E-02	8.00E-03	2.13E-04	7.50E+01	3.51E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	5.40E-02	8.00E-03	4.32E-04	7.50E+01	1.74E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	5.38E-02	8.00E-03	4.30E-04	7.50E+01	1.74E+05
Max	Aerial	Forested	Plane	Swimmer-child	5.53E-02	8.00E-03	4.42E-04	7.50E+01	1.70E+05
Max	Aerial	Forested	Helicopter	Swimmer-child	5.30E-02	8.00E-03	4.24E-04	7.50E+01	1.77E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	5.31E-02	8.00E-03	4.25E-04	7.50E+01	1.76E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	5.33E-02	8.00E-03	4.27E-04	7.50E+01	1.76E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.69E-02	8.93E-04	2.40E-05	7.50E+01	3.12E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.68E-02	8.93E-04	2.40E-05	7.50E+01	3.13E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	2.76E-02	8.93E-04	2.47E-05	7.50E+01	3.04E+06
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.65E-02	8.93E-04	2.36E-05	7.50E+01	3.17E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.66E-02	8.93E-04	2.37E-05	7.50E+01	3.16E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.67E-02	8.93E-04	2.38E-05	7.50E+01	3.15E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	5.40E-02	8.93E-04	4.82E-05	7.50E+01	1.56E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	5.38E-02	8.93E-04	4.80E-05	7.50E+01	1.56E+06
Max	Aerial	Forested	Plane	Swimmer-adult	5.53E-02	8.93E-04	4.94E-05	7.50E+01	1.52E+06
Max	Aerial	Forested	Helicopter	Swimmer-adult	5.30E-02	8.93E-04	4.73E-05	7.50E+01	1.59E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	5.31E-02	8.93E-04	4.75E-05	7.50E+01	1.58E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	5.33E-02	8.93E-04	4.76E-05	7.50E+01	1.57E+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, Short-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	Short-Term Water Concentration Cw (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.69E-02	2.52E-02	6.77E-04	7.50E-01	0.09%
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	2.68E-02	2.52E-02	6.75E-04	7.50E-01	0.09%
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.76E-02	2.52E-02	6.95E-04	7.50E-01	0.09%
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.65E-02	2.52E-02	6.66E-04	7.50E-01	0.09%
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.66E-02	2.52E-02	6.68E-04	7.50E-01	0.09%
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.67E-02	2.52E-02	6.71E-04	7.50E-01	0.09%
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	5.40E-02	2.52E-02	1.36E-03	7.50E-01	0.18%
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	5.38E-02	2.52E-02	1.35E-03	7.50E-01	0.18%
Max	Aerial	Forested	Plane	Hiker/Hunter	5.53E-02	2.52E-02	1.39E-03	7.50E-01	0.19%
Max	Aerial	Forested	Helicopter	Hiker/Hunter	5.30E-02	2.52E-02	1.33E-03	7.50E-01	0.18%
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	5.31E-02	2.52E-02	1.34E-03	7.50E-01	0.18%
Max	Ground	Not applicable	High Boom	Hiker/Hunter	5.33E-02	2.52E-02	1.34E-03	7.50E-01	0.18%
Typical	Aerial	Non-Forested	Plane	Berry - child	2.69E-02	6.67E-02	1.79E-03	7.50E-01	0.24%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	2.68E-02	6.67E-02	1.79E-03	7.50E-01	0.24%
Typical	Aerial	Forested	Plane	Berry - child	2.76E-02	6.67E-02	1.84E-03	7.50E-01	0.25%
Typical	Aerial	Forested	Helicopter	Berry - child	2.65E-02	6.67E-02	1.76E-03	7.50E-01	0.24%
Typical	Ground	Not applicable	Low Boom	Berry - child	2.66E-02	6.67E-02	1.77E-03	7.50E-01	0.24%
Typical	Ground	Not applicable	High Boom	Berry - child	2.67E-02	6.67E-02	1.78E-03	7.50E-01	0.24%
Max	Aerial	Non-Forested	Plane	Berry - child	5.40E-02	6.67E-02	3.60E-03	7.50E-01	0.48%
Max	Aerial	Non-Forested	Helicopter	Berry - child	5.38E-02	6.67E-02	3.58E-03	7.50E-01	0.48%
Max	Aerial	Forested	Plane	Berry - child	5.53E-02	6.67E-02	3.69E-03	7.50E-01	0.49%
Max	Aerial	Forested	Helicopter	Berry - child	5.30E-02	6.67E-02	3.53E-03	7.50E-01	0.47%
Max	Ground	Not applicable	Low Boom	Berry - child	5.31E-02	6.67E-02	3.54E-03	7.50E-01	0.47%
Max	Ground	Not applicable	High Boom	Berry - child	5.33E-02	6.67E-02	3.56E-03	7.50E-01	0.47%
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.69E-02	2.52E-02	6.77E-04	7.50E-01	0.09%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	2.68E-02	2.52E-02	6.75E-04	7.50E-01	0.09%
Typical	Aerial	Forested	Plane	Berry - adult	2.76E-02	2.52E-02	6.95E-04	7.50E-01	0.09%
Typical	Aerial	Forested	Helicopter	Berry - adult	2.65E-02	2.52E-02	6.66E-04	7.50E-01	0.09%
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.66E-02	2.52E-02	6.68E-04	7.50E-01	0.09%
Typical	Ground	Not applicable	High Boom	Berry - adult	2.67E-02	2.52E-02	6.71E-04	7.50E-01	0.09%
Max	Aerial	Non-Forested	Plane	Berry - adult	5.40E-02	2.52E-02	1.36E-03	7.50E-01	0.18%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	5.38E-02	2.52E-02	1.35E-03	7.50E-01	0.18%
Max	Aerial	Forested	Plane	Berry - adult	5.53E-02	2.52E-02	1.39E-03	7.50E-01	0.19%
Max	Aerial	Forested	Helicopter	Berry - adult	5.30E-02	2.52E-02	1.33E-03	7.50E-01	0.18%
Max	Ground	Not applicable	Low Boom	Berry - adult	5.31E-02	2.52E-02	1.34E-03	7.50E-01	0.18%
Max	Ground	Not applicable	High Boom	Berry - adult	5.33E-02	2.52E-02	1.34E-03	7.50E-01	0.18%

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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	Short-Term Water Concentration Cw (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	2.69E-02	2.52E-02	6.77E-04	7.50E-01	0.09%
Typical	Aerial	Non-Forested	Helicopter	Angler	2.68E-02	2.52E-02	6.75E-04	7.50E-01	0.09%
Typical	Aerial	Forested	Plane	Angler	2.76E-02	2.52E-02	6.95E-04	7.50E-01	0.09%
Typical	Aerial	Forested	Helicopter	Angler	2.65E-02	2.52E-02	6.66E-04	7.50E-01	0.09%
Typical	Ground	Not applicable	Low Boom	Angler	2.66E-02	2.52E-02	6.68E-04	7.50E-01	0.09%
Typical	Ground	Not applicable	High Boom	Angler	2.67E-02	2.52E-02	6.71E-04	7.50E-01	0.09%
Max	Aerial	Non-Forested	Plane	Angler	5.40E-02	2.52E-02	1.36E-03	7.50E-01	0.18%
Max	Aerial	Non-Forested	Helicopter	Angler	5.38E-02	2.52E-02	1.35E-03	7.50E-01	0.18%
Max	Aerial	Forested	Plane	Angler	5.53E-02	2.52E-02	1.39E-03	7.50E-01	0.19%
Max	Aerial	Forested	Helicopter	Angler	5.30E-02	2.52E-02	1.33E-03	7.50E-01	0.18%
Max	Ground	Not applicable	Low Boom	Angler	5.31E-02	2.52E-02	1.34E-03	7.50E-01	0.18%
Max	Ground	Not applicable	High Boom	Angler	5.33E-02	2.52E-02	1.34E-03	7.50E-01	0.18%
Typical	Aerial	Non-Forested	Plane	N.American - child	2.69E-02	3.33E-02	8.97E-04	7.50E-01	0.12%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	2.68E-02	3.33E-02	8.95E-04	7.50E-01	0.12%
Typical	Aerial	Forested	Plane	N.American - child	2.76E-02	3.33E-02	9.21E-04	7.50E-01	0.12%
Typical	Aerial	Forested	Helicopter	N.American - child	2.65E-02	3.33E-02	8.82E-04	7.50E-01	0.12%
Typical	Ground	Not applicable	Low Boom	N.American - child	2.66E-02	3.33E-02	8.86E-04	7.50E-01	0.12%
Typical	Ground	Not applicable	High Boom	N.American - child	2.67E-02	3.33E-02	8.89E-04	7.50E-01	0.12%
Max	Aerial	Non-Forested	Plane	N.American - child	5.40E-02	3.33E-02	1.80E-03	7.50E-01	0.24%
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.38E-02	3.33E-02	1.79E-03	7.50E-01	0.24%
Max	Aerial	Forested	Plane	N.American - child	5.53E-02	3.33E-02	1.84E-03	7.50E-01	0.25%
Max	Aerial	Forested	Helicopter	N.American - child	5.30E-02	3.33E-02	1.77E-03	7.50E-01	0.24%
Max	Ground	Not applicable	Low Boom	N.American - child	5.31E-02	3.33E-02	1.77E-03	7.50E-01	0.24%
Max	Ground	Not applicable	High Boom	N.American - child	5.33E-02	3.33E-02	1.78E-03	7.50E-01	0.24%
Typical	Aerial	Non-Forested	Plane	N.American - adult	2.69E-02	1.26E-02	3.39E-04	7.50E-01	0.045%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	2.68E-02	1.26E-02	3.38E-04	7.50E-01	0.045%
Typical	Aerial	Forested	Plane	N.American - adult	2.76E-02	1.26E-02	3.48E-04	7.50E-01	0.046%
Typical	Aerial	Forested	Helicopter	N.American - adult	2.65E-02	1.26E-02	3.33E-04	7.50E-01	0.044%
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.66E-02	1.26E-02	3.34E-04	7.50E-01	0.045%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.67E-02	1.26E-02	3.36E-04	7.50E-01	0.045%
Max	Aerial	Non-Forested	Plane	N.American - adult	5.40E-02	1.26E-02	6.79E-04	7.50E-01	0.09%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.38E-02	1.26E-02	6.76E-04	7.50E-01	0.09%
Max	Aerial	Forested	Plane	N.American - adult	5.53E-02	1.26E-02	6.95E-04	7.50E-01	0.09%
Max	Aerial	Forested	Helicopter	N.American - adult	5.30E-02	1.26E-02	6.66E-04	7.50E-01	0.09%
Max	Ground	Not applicable	Low Boom	N.American - adult	5.31E-02	1.26E-02	6.68E-04	7.50E-01	0.09%
Max	Ground	Not applicable	High Boom	N.American - adult	5.33E-02	1.26E-02	6.71E-04	7.50E-01	0.09%

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, Short-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	Short-Term Water Concentra (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)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	2.69E-02	1.00E+00	1.00E-06	7.67E+02	2.07E-05	7.50E-01	0.0028%
Typical	Aerial	Non-Forested	Helicopter	Angler	2.68E-02	1.00E+00	1.00E-06	7.67E+02	2.06E-05	7.50E-01	0.0027%
Typical	Aerial	Forested	Plane	Angler	2.76E-02	1.00E+00	1.00E-06	7.67E+02	2.12E-05	7.50E-01	0.0028%
Typical	Aerial	Forested	Helicopter	Angler	2.65E-02	1.00E+00	1.00E-06	7.67E+02	2.03E-05	7.50E-01	0.0027%
Typical	Ground	Not applicable	Low Boom	Angler	2.66E-02	1.00E+00	1.00E-06	7.67E+02	2.04E-05	7.50E-01	0.0027%
Typical	Ground	Not applicable	High Boom	Angler	2.67E-02	1.00E+00	1.00E-06	7.67E+02	2.05E-05	7.50E-01	0.0027%
Max	Aerial	Non-Forested	Plane	Angler	5.40E-02	1.00E+00	1.00E-06	7.67E+02	4.14E-05	7.50E-01	0.0055%
Max	Aerial	Non-Forested	Helicopter	Angler	5.38E-02	1.00E+00	1.00E-06	7.67E+02	4.13E-05	7.50E-01	0.0055%
Max	Aerial	Forested	Plane	Angler	5.53E-02	1.00E+00	1.00E-06	7.67E+02	4.24E-05	7.50E-01	0.0057%
Max	Aerial	Forested	Helicopter	Angler	5.30E-02	1.00E+00	1.00E-06	7.67E+02	4.06E-05	7.50E-01	0.0054%
Max	Ground	Not applicable	Low Boom	Angler	5.31E-02	1.00E+00	1.00E-06	7.67E+02	4.08E-05	7.50E-01	0.0054%
Max	Ground	Not applicable	High Boom	Angler	5.33E-02	1.00E+00	1.00E-06	7.67E+02	4.09E-05	7.50E-01	0.0055%
Typical	Aerial	Non-Forested	Plane	N.American - child	2.69E-02	1.00E+00	1.00E-06	1.11E+04	3.00E-04	7.50E-01	0.040%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	2.68E-02	1.00E+00	1.00E-06	1.11E+04	2.99E-04	7.50E-01	0.040%
Typical	Aerial	Forested	Plane	N.American - child	2.76E-02	1.00E+00	1.00E-06	1.11E+04	3.08E-04	7.50E-01	0.041%
Typical	Aerial	Forested	Helicopter	N.American - child	2.65E-02	1.00E+00	1.00E-06	1.11E+04	2.95E-04	7.50E-01	0.039%
Typical	Ground	Not applicable	Low Boom	N.American - child	2.66E-02	1.00E+00	1.00E-06	1.11E+04	2.96E-04	7.50E-01	0.039%
Typical	Ground	Not applicable	High Boom	N.American - child	2.67E-02	1.00E+00	1.00E-06	1.11E+04	2.97E-04	7.50E-01	0.040%
Max	Aerial	Non-Forested	Plane	N.American - child	5.40E-02	1.00E+00	1.00E-06	1.11E+04	6.01E-04	7.50E-01	0.080%
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.38E-02	1.00E+00	1.00E-06	1.11E+04	5.99E-04	7.50E-01	0.080%
Max	Aerial	Forested	Plane	N.American - child	5.53E-02	1.00E+00	1.00E-06	1.11E+04	6.15E-04	7.50E-01	0.082%
Max	Aerial	Forested	Helicopter	N.American - child	5.30E-02	1.00E+00	1.00E-06	1.11E+04	5.90E-04	7.50E-01	0.079%
Max	Ground	Not applicable	Low Boom	N.American - child	5.31E-02	1.00E+00	1.00E-06	1.11E+04	5.92E-04	7.50E-01	0.079%
Max	Ground	Not applicable	High Boom	N.American - child	5.33E-02	1.00E+00	1.00E-06	1.11E+04	5.94E-04	7.50E-01	0.079%
Typical	Aerial	Non-Forested	Plane	N.American - adult	2.69E-02	1.00E+00	1.00E-06	1.11E+04	3.00E-04	7.50E-01	0.040%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	2.68E-02	1.00E+00	1.00E-06	1.11E+04	2.99E-04	7.50E-01	0.040%
Typical	Aerial	Forested	Plane	N.American - adult	2.76E-02	1.00E+00	1.00E-06	1.11E+04	3.08E-04	7.50E-01	0.041%
Typical	Aerial	Forested	Helicopter	N.American - adult	2.65E-02	1.00E+00	1.00E-06	1.11E+04	2.95E-04	7.50E-01	0.039%
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.66E-02	1.00E+00	1.00E-06	1.11E+04	2.96E-04	7.50E-01	0.039%
Typical	Ground	Not applicable	High Boom	N.American - adult	2.67E-02	1.00E+00	1.00E-06	1.11E+04	2.97E-04	7.50E-01	0.040%
Max	Aerial	Non-Forested	Plane	N.American - adult	5.40E-02	1.00E+00	1.00E-06	1.11E+04	6.01E-04	7.50E-01	0.080%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.38E-02	1.00E+00	1.00E-06	1.11E+04	5.99E-04	7.50E-01	0.080%
Max	Aerial	Forested	Plane	N.American - adult	5.53E-02	1.00E+00	1.00E-06	1.11E+04	6.15E-04	7.50E-01	0.082%
Max	Aerial	Forested	Helicopter	N.American - adult	5.30E-02	1.00E+00	1.00E-06	1.11E+04	5.89E-04	7.50E-01	0.079%
Max	Ground	Not applicable	Low Boom	N.American - adult	5.31E-02	1.00E+00	1.00E-06	1.11E+04	5.92E-04	7.50E-01	0.079%
Max	Ground	Not applicable	High Boom	N.American - adult	5.33E-02	1.00E+00	1.00E-06	1.11E+04	5.94E-04	7.50E-01	0.079%

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, Short-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)	Acute 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	7.50E-01	0.0215%
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	7.50E-01	0.0179%
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	9.52E-05	4.00E+00	3.81E-04	7.50E-01	0.051%
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	7.50E-01	0.00299%
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.23E-05	4.00E+00	4.92E-05	7.50E-01	0.0066%
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	7.50E-01	0.0108%
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	7.50E-01	0.050%
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	7.50E-01	0.0394%
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.93E-04	4.00E+00	7.72E-04	7.50E-01	0.103%
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	1.12E-05	4.00E+00	4.48E-05	7.50E-01	0.0060%
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	7.50E-01	0.0131%
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	7.50E-01	0.0209%
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	7.50E-01	0.0216%
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	7.50E-01	0.0180%
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	9.52E-05	4.03E+00	3.83E-04	7.50E-01	0.051%
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	7.50E-01	0.00301%
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.23E-05	4.03E+00	4.95E-05	7.50E-01	0.0066%
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	7.50E-01	0.0108%
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	7.50E-01	0.050%
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	7.50E-01	0.0397%
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.93E-04	4.03E+00	7.77E-04	7.50E-01	0.104%
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	1.12E-05	4.03E+00	4.51E-05	7.50E-01	0.0060%
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	7.50E-01	0.0132%
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	7.50E-01	0.0210%

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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)	Acute 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	7.50E-01	0.0215%
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.36E-05	4.00E+00	1.34E-04	7.50E-01	0.0179%
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	9.52E-05	4.00E+00	3.81E-04	7.50E-01	0.051%
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	5.60E-06	4.00E+00	2.24E-05	7.50E-01	0.00299%
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.23E-05	4.00E+00	4.92E-05	7.50E-01	0.0066%
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	7.50E-01	0.0108%
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	7.50E-01	0.050%
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	7.50E-01	0.0394%
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.93E-04	4.00E+00	7.72E-04	7.50E-01	0.103%
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	1.12E-05	4.00E+00	4.48E-05	7.50E-01	0.0060%
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	7.50E-01	0.0131%
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	7.50E-01	0.0209%
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.03E-05	4.03E+00	1.62E-04	7.50E-01	0.0216%
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.36E-05	4.03E+00	1.35E-04	7.50E-01	0.0180%
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	9.52E-05	4.03E+00	3.83E-04	7.50E-01	0.051%
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	5.60E-06	4.03E+00	2.25E-05	7.50E-01	0.00301%
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.23E-05	4.03E+00	4.95E-05	7.50E-01	0.0066%
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	7.50E-01	0.0108%
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	7.50E-01	0.050%
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	7.50E-01	0.0397%
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.93E-04	4.03E+00	7.77E-04	7.50E-01	0.104%
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	1.12E-05	4.03E+00	4.51E-05	7.50E-01	0.0060%
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	7.50E-01	0.0132%
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	7.50E-01	0.0210%

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, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	0.09%	--	--	1.11E+03
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.11E+03
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.08E+03
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.13E+03
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.12E+03
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.09%	--	--	1.12E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.18%	--	--	5.52E+02
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.18%	--	--	5.54E+02
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.19%	--	--	5.39E+02
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.18%	--	--	5.63E+02
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.18%	--	--	5.61E+02
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	0.18%	--	--	5.59E+02
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.24%	0.0215%	--	3.83E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.24%	0.0179%	--	3.90E+02
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.25%	0.051%	--	3.37E+02
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.24%	0.00299%	--	4.20E+02
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.24%	0.0066%	--	4.12E+02
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.24%	0.0108%	--	4.03E+02
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.48%	0.050%	--	1.89E+02
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.48%	0.0394%	--	1.93E+02
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	0.49%	0.103%	--	1.68E+02
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	0.47%	0.0060%	--	2.10E+02
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	0.47%	0.0131%	--	2.06E+02
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	0.47%	0.0209%	--	2.02E+02
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.0216%	--	8.93E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.0180%	--	9.25E+02
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.051%	--	6.96E+02
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.00301%	--	1.09E+03
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.0066%	--	1.04E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.09%	0.0108%	--	9.97E+02
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.18%	0.050%	--	4.33E+02
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.18%	0.0397%	--	4.54E+02
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	0.19%	0.104%	--	3.46E+02
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	0.18%	0.0060%	--	5.45E+02
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.18%	0.0132%	--	5.22E+02
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	0.18%	0.0210%	--	5.00E+02

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	0.09%	--	0.0028%	1.07E+03
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.0027%	1.08E+03
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.0028%	1.05E+03
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.0027%	1.09E+03
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.0027%	1.09E+03
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.09%	--	0.0027%	1.08E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.18%	--	0.0055%	5.36E+02
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.18%	--	0.0055%	5.38E+02
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	0.19%	--	0.0057%	5.23E+02
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	0.18%	--	0.0054%	5.46E+02
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	0.18%	--	0.0054%	5.44E+02
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	0.18%	--	0.0055%	5.42E+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 - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	9.94E+08	--	0.12%	0.0215%	0.040%	5.52E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	9.97E+08	--	0.12%	0.0179%	0.040%	5.65E+02
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	9.69E+08	--	0.12%	0.051%	0.041%	4.66E+02
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.01E+09	--	0.12%	0.00299%	0.039%	6.25E+02
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	1.01E+09	--	0.12%	0.0066%	0.039%	6.09E+02
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	1.00E+09	--	0.12%	0.0108%	0.040%	5.92E+02
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	4.96E+08	--	0.24%	0.050%	0.080%	2.70E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	4.98E+08	--	0.24%	0.0394%	0.080%	2.79E+02
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	4.84E+08	--	0.25%	0.103%	0.082%	2.32E+02
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	5.06E+08	--	0.24%	0.0060%	0.079%	3.13E+02
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	5.04E+08	--	0.24%	0.0131%	0.079%	3.05E+02
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	5.02E+08	--	0.24%	0.0209%	0.079%	2.97E+02
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.93E+09	--	0.045%	0.0216%	0.040%	9.37E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.94E+09	--	0.045%	0.0180%	0.040%	9.72E+02
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.88E+09	--	0.046%	0.051%	0.041%	7.22E+02
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.96E+09	--	0.044%	0.00301%	0.039%	1.15E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.96E+09	--	0.045%	0.0066%	0.039%	1.10E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.95E+09	--	0.045%	0.0108%	0.040%	1.05E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	9.64E+08	--	0.09%	0.050%	0.080%	4.53E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	9.67E+08	--	0.09%	0.0397%	0.080%	4.77E+02
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	9.41E+08	--	0.09%	0.104%	0.082%	3.59E+02
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	9.82E+08	--	0.09%	0.0060%	0.079%	5.77E+02
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	9.79E+08	--	0.09%	0.0132%	0.079%	5.52E+02
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	9.75E+08	--	0.09%	0.0210%	0.079%	5.27E+02

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	2.59E+09	3.48E+05	--	--	--	3.48E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.59E+09	3.49E+05	--	--	--	3.49E+03
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	2.52E+09	3.39E+05	--	--	--	3.39E+03
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.63E+09	3.54E+05	--	--	--	3.54E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	2.62E+09	3.53E+05	--	--	--	3.53E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	2.61E+09	3.51E+05	--	--	--	3.51E+03
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	1.29E+09	1.74E+05	--	--	--	1.74E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.29E+09	1.74E+05	--	--	--	1.74E+03
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	1.26E+09	1.70E+05	--	--	--	1.70E+03
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.31E+09	1.77E+05	--	--	--	1.77E+03
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	1.31E+09	1.76E+05	--	--	--	1.76E+03
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	1.30E+09	1.76E+05	--	--	--	1.76E+03
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.02E+09	3.12E+06	--	--	--	3.12E+04
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.04E+09	3.13E+06	--	--	--	3.13E+04
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	4.90E+09	3.04E+06	--	--	--	3.04E+04
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.11E+09	3.17E+06	--	--	--	3.17E+04
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	5.09E+09	3.16E+06	--	--	--	3.16E+04
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	5.07E+09	3.15E+06	--	--	--	3.15E+04
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	2.51E+09	1.56E+06	--	--	--	1.55E+04
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	2.52E+09	1.56E+06	--	--	--	1.56E+04
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	2.45E+09	1.52E+06	--	--	--	1.52E+04
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	2.55E+09	1.59E+06	--	--	--	1.58E+04
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	2.55E+09	1.58E+06	--	--	--	1.58E+04
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	2.54E+09	1.57E+06	--	--	--	1.57E+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.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.95E-02	2.76E-02	1.00E-03	4.40E+02	3.59E-04	1.00E+02	2.79E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	2.95E-02	3.04E-02	1.00E-03	4.40E+02	3.94E-04	1.00E+02	2.54E+05
Typical	Aerial	Forested	Plane	Swimmer-child	2.95E-02	2.84E-02	1.00E-03	4.40E+02	3.68E-04	1.00E+02	2.71E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.95E-02	2.72E-02	1.00E-03	4.40E+02	3.53E-04	1.00E+02	2.83E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.95E-02	2.73E-02	1.00E-03	4.40E+02	3.54E-04	1.00E+02	2.82E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.95E-02	2.74E-02	1.00E-03	4.40E+02	3.56E-04	1.00E+02	2.81E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	2.95E-02	5.33E-02	1.00E-03	4.40E+02	6.92E-04	1.00E+02	1.45E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	2.95E-02	5.31E-02	1.00E-03	4.40E+02	6.89E-04	1.00E+02	1.45E+05
Max	Aerial	Forested	Plane	Swimmer-child	2.95E-02	5.47E-02	1.00E-03	4.40E+02	7.10E-04	1.00E+02	1.41E+05
Max	Aerial	Forested	Helicopter	Swimmer-child	2.95E-02	5.23E-02	1.00E-03	4.40E+02	6.79E-04	1.00E+02	1.47E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	2.95E-02	5.24E-02	1.00E-03	4.40E+02	6.81E-04	1.00E+02	1.47E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	2.95E-02	5.26E-02	1.00E-03	4.40E+02	6.84E-04	1.00E+02	1.46E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.95E-02	2.76E-02	1.00E-03	2.26E+02	1.85E-04	1.00E+02	5.41E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.95E-02	3.04E-02	1.00E-03	2.26E+02	2.03E-04	1.00E+02	4.93E+05
Typical	Aerial	Forested	Plane	Swimmer-adult	2.95E-02	2.84E-02	1.00E-03	2.26E+02	1.90E-04	1.00E+02	5.27E+05
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.95E-02	2.72E-02	1.00E-03	2.26E+02	1.82E-04	1.00E+02	5.51E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.95E-02	2.73E-02	1.00E-03	2.26E+02	1.82E-04	1.00E+02	5.49E+05
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.95E-02	2.74E-02	1.00E-03	2.26E+02	1.83E-04	1.00E+02	5.47E+05
Max	Aerial	Non-Forested	Plane	Swimmer-adult	2.95E-02	5.33E-02	1.00E-03	2.26E+02	3.56E-04	1.00E+02	2.81E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	2.95E-02	5.31E-02	1.00E-03	2.26E+02	3.55E-04	1.00E+02	2.82E+05
Max	Aerial	Forested	Plane	Swimmer-adult	2.95E-02	5.47E-02	1.00E-03	2.26E+02	3.65E-04	1.00E+02	2.74E+05
Max	Aerial	Forested	Helicopter	Swimmer-adult	2.95E-02	5.23E-02	1.00E-03	2.26E+02	3.49E-04	1.00E+02	2.86E+05
Max	Ground	Not applicable	Low Boom	Swimmer-adult	2.95E-02	5.24E-02	1.00E-03	2.26E+02	3.50E-04	1.00E+02	2.85E+05
Max	Ground	Not applicable	High Boom	Swimmer-adult	2.95E-02	5.26E-02	1.00E-03	2.26E+02	3.52E-04	1.00E+02	2.84E+05
Typical	Aerial	Non-Forested	Plane	N.American-child	2.95E-02	2.76E-02	1.00E-03	1.14E+03	9.33E-04	1.00E+02	1.07E+05
Typical	Aerial	Non-Forested	Helicopter	N.American-child	2.95E-02	3.04E-02	1.00E-03	1.14E+03	1.03E-03	1.00E+02	9.75E+04
Typical	Aerial	Forested	Plane	N.American-child	2.95E-02	2.84E-02	1.00E-03	1.14E+03	9.58E-04	1.00E+02	1.04E+05
Typical	Aerial	Forested	Helicopter	N.American-child	2.95E-02	2.72E-02	1.00E-03	1.14E+03	9.17E-04	1.00E+02	1.09E+05
Typical	Ground	Not applicable	Low Boom	N.American-child	2.95E-02	2.73E-02	1.00E-03	1.14E+03	9.21E-04	1.00E+02	1.09E+05
Typical	Ground	Not applicable	High Boom	N.American-child	2.95E-02	2.74E-02	1.00E-03	1.14E+03	9.24E-04	1.00E+02	1.08E+05
Max	Aerial	Non-Forested	Plane	N.American-child	2.95E-02	5.33E-02	1.00E-03	1.14E+03	1.80E-03	1.00E+02	5.56E+04
Max	Aerial	Non-Forested	Helicopter	N.American-child	2.95E-02	5.31E-02	1.00E-03	1.14E+03	1.79E-03	1.00E+02	5.58E+04
Max	Aerial	Forested	Plane	N.American-child	2.95E-02	5.47E-02	1.00E-03	1.14E+03	1.85E-03	1.00E+02	5.42E+04
Max	Aerial	Forested	Helicopter	N.American-child	2.95E-02	5.23E-02	1.00E-03	1.14E+03	1.76E-03	1.00E+02	5.67E+04
Max	Ground	Not applicable	Low Boom	N.American-child	2.95E-02	5.24E-02	1.00E-03	1.14E+03	1.77E-03	1.00E+02	5.65E+04
Max	Ground	Not applicable	High Boom	N.American-child	2.95E-02	5.26E-02	1.00E-03	1.14E+03	1.78E-03	1.00E+02	5.62E+04

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	2.95E-02	2.76E-02	1.00E-03	5.89E+02	4.80E-04	1.00E+02	2.08E+05
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	2.95E-02	3.04E-02	1.00E-03	5.89E+02	5.28E-04	1.00E+02	1.90E+05
Typical	Aerial	Forested	Plane	N.American-adult	2.95E-02	2.84E-02	1.00E-03	5.89E+02	4.93E-04	1.00E+02	2.03E+05
Typical	Aerial	Forested	Helicopter	N.American-adult	2.95E-02	2.72E-02	1.00E-03	5.89E+02	4.72E-04	1.00E+02	2.12E+05
Typical	Ground	Not applicable	Low Boom	N.American-adult	2.95E-02	2.73E-02	1.00E-03	5.89E+02	4.74E-04	1.00E+02	2.11E+05
Typical	Ground	Not applicable	High Boom	N.American-adult	2.95E-02	2.74E-02	1.00E-03	5.89E+02	4.76E-04	1.00E+02	2.10E+05
Max	Aerial	Non-Forested	Plane	N.American-adult	2.95E-02	5.33E-02	1.00E-03	5.89E+02	9.26E-04	1.00E+02	1.08E+05
Max	Aerial	Non-Forested	Helicopter	N.American-adult	2.95E-02	5.31E-02	1.00E-03	5.89E+02	9.22E-04	1.00E+02	1.08E+05
Max	Aerial	Forested	Plane	N.American-adult	2.95E-02	5.47E-02	1.00E-03	5.89E+02	9.50E-04	1.00E+02	1.05E+05
Max	Aerial	Forested	Helicopter	N.American-adult	2.95E-02	5.23E-02	1.00E-03	5.89E+02	9.08E-04	1.00E+02	1.10E+05
Max	Ground	Not applicable	Low Boom	N.American-adult	2.95E-02	5.24E-02	1.00E-03	5.89E+02	9.11E-04	1.00E+02	1.10E+05
Max	Ground	Not applicable	High Boom	N.American-adult	2.95E-02	5.26E-02	1.00E-03	5.89E+02	9.15E-04	1.00E+02	1.09E+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, Short-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	Short-Term Water Concentration (Cw) (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Short-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	2.76E-02	8.00E-03	2.21E-04	1.00E+02	4.52E+05
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	3.04E-02	8.00E-03	2.43E-04	1.00E+02	4.12E+05
Typical	Aerial	Forested	Plane	Swimmer-child	2.84E-02	8.00E-03	2.27E-04	1.00E+02	4.41E+05
Typical	Aerial	Forested	Helicopter	Swimmer-child	2.72E-02	8.00E-03	2.17E-04	1.00E+02	4.60E+05
Typical	Ground	Not applicable	Low Boom	Swimmer-child	2.73E-02	8.00E-03	2.18E-04	1.00E+02	4.58E+05
Typical	Ground	Not applicable	High Boom	Swimmer-child	2.74E-02	8.00E-03	2.19E-04	1.00E+02	4.57E+05
Max	Aerial	Non-Forested	Plane	Swimmer-child	5.33E-02	8.00E-03	4.26E-04	1.00E+02	2.35E+05
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	5.31E-02	8.00E-03	4.25E-04	1.00E+02	2.36E+05
Max	Aerial	Forested	Plane	Swimmer-child	5.47E-02	8.00E-03	4.37E-04	1.00E+02	2.29E+05
Max	Aerial	Forested	Helicopter	Swimmer-child	5.23E-02	8.00E-03	4.18E-04	1.00E+02	2.39E+05
Max	Ground	Not applicable	Low Boom	Swimmer-child	5.24E-02	8.00E-03	4.20E-04	1.00E+02	2.38E+05
Max	Ground	Not applicable	High Boom	Swimmer-child	5.26E-02	8.00E-03	4.21E-04	1.00E+02	2.37E+05
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	2.76E-02	8.93E-04	2.47E-05	1.00E+02	4.05E+06
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	3.04E-02	8.93E-04	2.71E-05	1.00E+02	3.69E+06
Typical	Aerial	Forested	Plane	Swimmer-adult	2.84E-02	8.93E-04	2.53E-05	1.00E+02	3.95E+06
Typical	Aerial	Forested	Helicopter	Swimmer-adult	2.72E-02	8.93E-04	2.43E-05	1.00E+02	4.12E+06
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	2.73E-02	8.93E-04	2.44E-05	1.00E+02	4.11E+06
Typical	Ground	Not applicable	High Boom	Swimmer-adult	2.74E-02	8.93E-04	2.44E-05	1.00E+02	4.09E+06
Max	Aerial	Non-Forested	Plane	Swimmer-adult	5.33E-02	8.93E-04	4.76E-05	1.00E+02	2.10E+06
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	5.31E-02	8.93E-04	4.74E-05	1.00E+02	2.11E+06
Max	Aerial	Forested	Plane	Swimmer-adult	5.47E-02	8.93E-04	4.88E-05	1.00E+02	2.05E+06
Max	Aerial	Forested	Helicopter	Swimmer-adult	5.23E-02	8.93E-04	4.67E-05	1.00E+02	2.14E+06
Max	Ground	Not applicable	Low Boom	Swimmer-adult	5.24E-02	8.93E-04	4.68E-05	1.00E+02	2.14E+06
Max	Ground	Not applicable	High Boom	Swimmer-adult	5.26E-02	8.93E-04	4.70E-05	1.00E+02	2.13E+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, Short-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	Short-Term Water Concentration Cw (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	2.76E-02	2.52E-02	6.95E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	3.04E-02	2.52E-02	7.64E-04	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	2.84E-02	2.52E-02	7.14E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	2.72E-02	2.52E-02	6.83E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	2.73E-02	2.52E-02	6.86E-04	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	2.74E-02	2.52E-02	6.89E-04	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	5.33E-02	2.52E-02	1.34E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	5.31E-02	2.52E-02	1.34E-03	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	5.47E-02	2.52E-02	1.38E-03	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	5.23E-02	2.52E-02	1.31E-03	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	5.24E-02	2.52E-02	1.32E-03	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	5.26E-02	2.52E-02	1.32E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	2.76E-02	6.67E-02	1.84E-03	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	3.04E-02	6.67E-02	2.02E-03	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	2.84E-02	6.67E-02	1.89E-03	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	2.72E-02	6.67E-02	1.81E-03	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	2.73E-02	6.67E-02	1.82E-03	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	2.74E-02	6.67E-02	1.83E-03	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	5.33E-02	6.67E-02	3.55E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	5.31E-02	6.67E-02	3.54E-03	NA	NC
Max	Aerial	Forested	Plane	Berry - child	5.47E-02	6.67E-02	3.64E-03	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	5.23E-02	6.67E-02	3.48E-03	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	5.24E-02	6.67E-02	3.50E-03	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	5.26E-02	6.67E-02	3.51E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	2.76E-02	2.52E-02	6.95E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	3.04E-02	2.52E-02	7.64E-04	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	2.84E-02	2.52E-02	7.14E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	2.72E-02	2.52E-02	6.83E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	2.73E-02	2.52E-02	6.86E-04	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	2.74E-02	2.52E-02	6.89E-04	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	5.33E-02	2.52E-02	1.34E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	5.31E-02	2.52E-02	1.34E-03	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	5.47E-02	2.52E-02	1.38E-03	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	5.23E-02	2.52E-02	1.31E-03	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	5.24E-02	2.52E-02	1.32E-03	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	5.26E-02	2.52E-02	1.32E-03	NA	NC

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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	Short-Term Water Concentration Cw (mg a.e./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.e./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	2.76E-02	2.52E-02	6.95E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	3.04E-02	2.52E-02	7.64E-04	NA	NC
Typical	Aerial	Forested	Plane	Angler	2.84E-02	2.52E-02	7.14E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	2.72E-02	2.52E-02	6.83E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	2.73E-02	2.52E-02	6.86E-04	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	2.74E-02	2.52E-02	6.89E-04	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	5.33E-02	2.52E-02	1.34E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	5.31E-02	2.52E-02	1.34E-03	NA	NC
Max	Aerial	Forested	Plane	Angler	5.47E-02	2.52E-02	1.38E-03	NA	NC
Max	Aerial	Forested	Helicopter	Angler	5.23E-02	2.52E-02	1.31E-03	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	5.24E-02	2.52E-02	1.32E-03	NA	NC
Max	Ground	Not applicable	High Boom	Angler	5.26E-02	2.52E-02	1.32E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - child	2.76E-02	3.33E-02	9.21E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - child	3.04E-02	3.33E-02	1.01E-03	NA	NC
Typical	Aerial	Forested	Plane	N.American - child	2.84E-02	3.33E-02	9.46E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - child	2.72E-02	3.33E-02	9.06E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - child	2.73E-02	3.33E-02	9.09E-04	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - child	2.74E-02	3.33E-02	9.13E-04	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - child	5.33E-02	3.33E-02	1.78E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.31E-02	3.33E-02	1.77E-03	NA	NC
Max	Aerial	Forested	Plane	N.American - child	5.47E-02	3.33E-02	1.82E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.American - child	5.23E-02	3.33E-02	1.74E-03	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - child	5.24E-02	3.33E-02	1.75E-03	NA	NC
Max	Ground	Not applicable	High Boom	N.American - child	5.26E-02	3.33E-02	1.75E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - adult	2.76E-02	1.26E-02	3.48E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	3.04E-02	1.26E-02	3.82E-04	NA	NC
Typical	Aerial	Forested	Plane	N.American - adult	2.84E-02	1.26E-02	3.57E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - adult	2.72E-02	1.26E-02	3.42E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.73E-02	1.26E-02	3.43E-04	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - adult	2.74E-02	1.26E-02	3.44E-04	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - adult	5.33E-02	1.26E-02	6.70E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.31E-02	1.26E-02	6.68E-04	NA	NC
Max	Aerial	Forested	Plane	N.American - adult	5.47E-02	1.26E-02	6.88E-04	NA	NC
Max	Aerial	Forested	Helicopter	N.American - adult	5.23E-02	1.26E-02	6.57E-04	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - adult	5.24E-02	1.26E-02	6.60E-04	NA	NC
Max	Ground	Not applicable	High Boom	N.American - adult	5.26E-02	1.26E-02	6.62E-04	NA	NC

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, Short-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	Short-Term Water Concentra (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)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	2.76E-02	6.06E+00	1.00E-06	7.67E+02	1.29E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	3.04E-02	6.06E+00	1.00E-06	7.67E+02	1.41E-04	NA	NC
Typical	Aerial	Forested	Plane	Angler	2.84E-02	6.06E+00	1.00E-06	7.67E+02	1.32E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	2.72E-02	6.06E+00	1.00E-06	7.67E+02	1.26E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	2.73E-02	6.06E+00	1.00E-06	7.67E+02	1.27E-04	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	2.74E-02	6.06E+00	1.00E-06	7.67E+02	1.27E-04	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	5.33E-02	6.06E+00	1.00E-06	7.67E+02	2.48E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	5.31E-02	6.06E+00	1.00E-06	7.67E+02	2.47E-04	NA	NC
Max	Aerial	Forested	Plane	Angler	5.47E-02	6.06E+00	1.00E-06	7.67E+02	2.54E-04	NA	NC
Max	Aerial	Forested	Helicopter	Angler	5.23E-02	6.06E+00	1.00E-06	7.67E+02	2.43E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	5.24E-02	6.06E+00	1.00E-06	7.67E+02	2.44E-04	NA	NC
Max	Ground	Not applicable	High Boom	Angler	5.26E-02	6.06E+00	1.00E-06	7.67E+02	2.45E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - child	2.76E-02	6.06E+00	1.00E-06	1.11E+04	1.86E-03	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - child	3.04E-02	6.06E+00	1.00E-06	1.11E+04	2.05E-03	NA	NC
Typical	Aerial	Forested	Plane	N.American - child	2.84E-02	6.06E+00	1.00E-06	1.11E+04	1.91E-03	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - child	2.72E-02	6.06E+00	1.00E-06	1.11E+04	1.83E-03	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - child	2.73E-02	6.06E+00	1.00E-06	1.11E+04	1.84E-03	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - child	2.74E-02	6.06E+00	1.00E-06	1.11E+04	1.85E-03	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - child	5.33E-02	6.06E+00	1.00E-06	1.11E+04	3.59E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - child	5.31E-02	6.06E+00	1.00E-06	1.11E+04	3.58E-03	NA	NC
Max	Aerial	Forested	Plane	N.American - child	5.47E-02	6.06E+00	1.00E-06	1.11E+04	3.69E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.American - child	5.23E-02	6.06E+00	1.00E-06	1.11E+04	3.53E-03	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - child	5.24E-02	6.06E+00	1.00E-06	1.11E+04	3.54E-03	NA	NC
Max	Ground	Not applicable	High Boom	N.American - child	5.26E-02	6.06E+00	1.00E-06	1.11E+04	3.55E-03	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - adult	2.76E-02	6.06E+00	1.00E-06	1.11E+04	1.86E-03	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	3.04E-02	6.06E+00	1.00E-06	1.11E+04	2.05E-03	NA	NC
Typical	Aerial	Forested	Plane	N.American - adult	2.84E-02	6.06E+00	1.00E-06	1.11E+04	1.91E-03	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - adult	2.72E-02	6.06E+00	1.00E-06	1.11E+04	1.83E-03	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - adult	2.73E-02	6.06E+00	1.00E-06	1.11E+04	1.84E-03	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - adult	2.74E-02	6.06E+00	1.00E-06	1.11E+04	1.85E-03	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - adult	5.33E-02	6.06E+00	1.00E-06	1.11E+04	3.59E-03	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - adult	5.31E-02	6.06E+00	1.00E-06	1.11E+04	3.58E-03	NA	NC
Max	Aerial	Forested	Plane	N.American - adult	5.47E-02	6.06E+00	1.00E-06	1.11E+04	3.69E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.American - adult	5.23E-02	6.06E+00	1.00E-06	1.11E+04	3.52E-03	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - adult	5.24E-02	6.06E+00	1.00E-06	1.11E+04	3.54E-03	NA	NC
Max	Ground	Not applicable	High Boom	N.American - adult	5.26E-02	6.06E+00	1.00E-06	1.11E+04	3.55E-03	NA	NC

a.e. - acid equivalent
NA - Not Available.
NC - Not Calculated (No dose-response value).

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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	Short-Term Water Concentr (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)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)

PAD - Population Adjusted Dose. %PAD values greater than 100% are highlighted.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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)	Acute 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	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	3.47E-05	4.00E+00	1.39E-04	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	1.87E-04	4.00E+00	7.48E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	1.46E-05	4.00E+00	5.82E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	1.34E-05	4.00E+00	5.36E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	NA	NC
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	3.77E-04	4.00E+00	1.51E-03	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	2.91E-05	4.00E+00	1.16E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	3.47E-05	4.03E+00	1.40E-04	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.87E-04	4.03E+00	7.53E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	1.46E-05	4.03E+00	5.86E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	1.34E-05	4.03E+00	5.39E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	3.77E-04	4.03E+00	1.52E-03	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	2.91E-05	4.03E+00	1.17E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	NA	NC

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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)	Acute 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	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	3.47E-05	4.00E+00	1.39E-04	NA	NC
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	1.87E-04	4.00E+00	7.48E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	1.46E-05	4.00E+00	5.82E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	1.34E-05	4.00E+00	5.36E-05	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	2.02E-05	4.00E+00	8.08E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	9.30E-05	4.00E+00	3.72E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	7.39E-05	4.00E+00	2.96E-04	NA	NC
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	3.77E-04	4.00E+00	1.51E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	2.91E-05	4.00E+00	1.16E-04	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.46E-05	4.00E+00	9.84E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.92E-05	4.00E+00	1.57E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	4.14E-05	4.03E+00	1.67E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	3.47E-05	4.03E+00	1.40E-04	NA	NC
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.87E-04	4.03E+00	7.53E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	1.46E-05	4.03E+00	5.86E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	1.34E-05	4.03E+00	5.39E-05	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	2.02E-05	4.03E+00	8.13E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	9.30E-05	4.03E+00	3.74E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	7.39E-05	4.03E+00	2.97E-04	NA	NC
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	3.77E-04	4.03E+00	1.52E-03	NA	NC
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	2.91E-05	4.03E+00	1.17E-04	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.46E-05	4.03E+00	9.90E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.92E-05	4.03E+00	1.58E-04	NA	NC

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 - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	NC	--	--	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	NC	NC	--	--	NC	--	--	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	NC	NC	--	--	NC	NC	--	NC

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	NC	--	NC	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Typical	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Aerial	Forested	Plane	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	NC	NC	--	--	NC	--	NC	NC
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 - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	1.07E+05	--	NC	NC	NC	1.07E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	9.75E+04	--	NC	NC	NC	9.75E+02
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	1.04E+05	--	NC	NC	NC	1.04E+03
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	1.09E+05	--	NC	NC	NC	1.09E+03
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	1.09E+05	--	NC	NC	NC	1.09E+03
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	1.08E+05	--	NC	NC	NC	1.08E+03
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	NC	NC	5.56E+04	--	NC	NC	NC	5.56E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	5.58E+04	--	NC	NC	NC	5.58E+02
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	NC	NC	5.42E+04	--	NC	NC	NC	5.42E+02
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	NC	NC	5.67E+04	--	NC	NC	NC	5.67E+02
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	NC	NC	5.65E+04	--	NC	NC	NC	5.65E+02
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	NC	NC	5.62E+04	--	NC	NC	NC	5.62E+02
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	2.08E+05	--	NC	NC	NC	2.08E+03
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.90E+05	--	NC	NC	NC	1.90E+03
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	2.03E+05	--	NC	NC	NC	2.03E+03
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	2.12E+05	--	NC	NC	NC	2.12E+03
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	2.11E+05	--	NC	NC	NC	2.11E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	2.10E+05	--	NC	NC	NC	2.10E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.08E+05	--	NC	NC	NC	1.08E+03
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.08E+05	--	NC	NC	NC	1.08E+03
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	NC	NC	1.05E+05	--	NC	NC	NC	1.05E+03
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	NC	NC	1.10E+05	--	NC	NC	NC	1.10E+03
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	NC	NC	1.10E+05	--	NC	NC	NC	1.10E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	NC	NC	1.09E+05	--	NC	NC	NC	1.09E+03

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	2.79E+05	4.52E+05	--	--	--	1.72E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.54E+05	4.12E+05	--	--	--	1.57E+03
Typical	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	2.71E+05	4.41E+05	--	--	--	1.68E+03
Typical	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	2.83E+05	4.60E+05	--	--	--	1.75E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	2.82E+05	4.58E+05	--	--	--	1.75E+03
Typical	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	2.81E+05	4.57E+05	--	--	--	1.74E+03
Max	Aerial	Non-Forested	Plane	Swimmer-child	1.00E+02	--	--	1.45E+05	2.35E+05	--	--	--	8.94E+02
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.45E+05	2.36E+05	--	--	--	8.98E+02
Max	Aerial	Forested	Plane	Swimmer-child	1.00E+02	--	--	1.41E+05	2.29E+05	--	--	--	8.72E+02
Max	Aerial	Forested	Helicopter	Swimmer-child	1.00E+02	--	--	1.47E+05	2.39E+05	--	--	--	9.12E+02
Max	Ground	Not applicable	Low Boom	Swimmer-child	1.00E+02	--	--	1.47E+05	2.38E+05	--	--	--	9.09E+02
Max	Ground	Not applicable	High Boom	Swimmer-child	1.00E+02	--	--	1.46E+05	2.37E+05	--	--	--	9.05E+02
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.41E+05	4.05E+06	--	--	--	4.78E+03
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	4.93E+05	3.69E+06	--	--	--	4.35E+03
Typical	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	5.27E+05	3.95E+06	--	--	--	4.65E+03
Typical	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	5.51E+05	4.12E+06	--	--	--	4.86E+03
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	5.49E+05	4.11E+06	--	--	--	4.84E+03
Typical	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	5.47E+05	4.09E+06	--	--	--	4.82E+03
Max	Aerial	Non-Forested	Plane	Swimmer-adult	1.00E+02	--	--	2.81E+05	2.10E+06	--	--	--	2.48E+03
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	2.82E+05	2.11E+06	--	--	--	2.49E+03
Max	Aerial	Forested	Plane	Swimmer-adult	1.00E+02	--	--	2.74E+05	2.05E+06	--	--	--	2.41E+03
Max	Aerial	Forested	Helicopter	Swimmer-adult	1.00E+02	--	--	2.86E+05	2.14E+06	--	--	--	2.53E+03
Max	Ground	Not applicable	Low Boom	Swimmer-adult	1.00E+02	--	--	2.85E+05	2.14E+06	--	--	--	2.52E+03
Max	Ground	Not applicable	High Boom	Swimmer-adult	1.00E+02	--	--	2.84E+05	2.13E+06	--	--	--	2.51E+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.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	6.41E-06	3.55E-03	1.00E-03	4.40E+02	1.00E-08	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	6.41E-06	3.51E-03	1.00E-03	4.40E+02	9.89E-09	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-child	6.41E-06	3.87E-03	1.00E-03	4.40E+02	1.09E-08	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-child	6.41E-06	3.34E-03	1.00E-03	4.40E+02	9.41E-09	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-child	6.41E-06	3.34E-03	1.00E-03	4.40E+02	9.40E-09	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-child	6.41E-06	3.35E-03	1.00E-03	4.40E+02	9.46E-09	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-child	6.41E-06	4.74E-03	1.00E-03	4.40E+02	1.34E-08	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	6.41E-06	4.68E-03	1.00E-03	4.40E+02	1.32E-08	NA	NC
Max	Aerial	Forested	Plane	Swimmer-child	6.41E-06	5.12E-03	1.00E-03	4.40E+02	1.44E-08	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-child	6.41E-06	4.44E-03	1.00E-03	4.40E+02	1.25E-08	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-child	6.41E-06	4.44E-03	1.00E-03	4.40E+02	1.25E-08	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-child	6.41E-06	4.47E-03	1.00E-03	4.40E+02	1.26E-08	NA	NC
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	6.41E-06	3.55E-03	1.00E-03	2.26E+02	5.15E-09	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	6.41E-06	3.51E-03	1.00E-03	2.26E+02	5.09E-09	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-adult	6.41E-06	3.87E-03	1.00E-03	2.26E+02	5.62E-09	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-adult	6.41E-06	3.34E-03	1.00E-03	2.26E+02	4.84E-09	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	6.41E-06	3.34E-03	1.00E-03	2.26E+02	4.84E-09	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-adult	6.41E-06	3.35E-03	1.00E-03	2.26E+02	4.87E-09	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-adult	6.41E-06	4.74E-03	1.00E-03	2.26E+02	6.88E-09	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	6.41E-06	4.68E-03	1.00E-03	2.26E+02	6.79E-09	NA	NC
Max	Aerial	Forested	Plane	Swimmer-adult	6.41E-06	5.12E-03	1.00E-03	2.26E+02	7.43E-09	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-adult	6.41E-06	4.44E-03	1.00E-03	2.26E+02	6.45E-09	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-adult	6.41E-06	4.44E-03	1.00E-03	2.26E+02	6.45E-09	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-adult	6.41E-06	4.47E-03	1.00E-03	2.26E+02	6.49E-09	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American-child	6.41E-06	3.55E-03	1.00E-03	1.14E+03	2.60E-08	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American-child	6.41E-06	3.51E-03	1.00E-03	1.14E+03	2.57E-08	NA	NC
Typical	Aerial	Forested	Plane	N.American-child	6.41E-06	3.87E-03	1.00E-03	1.14E+03	2.84E-08	NA	NC
Typical	Aerial	Forested	Helicopter	N.American-child	6.41E-06	3.34E-03	1.00E-03	1.14E+03	2.45E-08	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American-child	6.41E-06	3.34E-03	1.00E-03	1.14E+03	2.44E-08	NA	NC
Typical	Ground	Not applicable	High Boom	N.American-child	6.41E-06	3.35E-03	1.00E-03	1.14E+03	2.46E-08	NA	NC
Max	Aerial	Non-Forested	Plane	N.American-child	6.41E-06	4.74E-03	1.00E-03	1.14E+03	3.47E-08	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American-child	6.41E-06	4.68E-03	1.00E-03	1.14E+03	3.43E-08	NA	NC
Max	Aerial	Forested	Plane	N.American-child	6.41E-06	5.12E-03	1.00E-03	1.14E+03	3.76E-08	NA	NC
Max	Aerial	Forested	Helicopter	N.American-child	6.41E-06	4.44E-03	1.00E-03	1.14E+03	3.26E-08	NA	NC
Max	Ground	Not applicable	Low Boom	N.American-child	6.41E-06	4.44E-03	1.00E-03	1.14E+03	3.26E-08	NA	NC
Max	Ground	Not applicable	High Boom	N.American-child	6.41E-06	4.47E-03	1.00E-03	1.14E+03	3.28E-08	NA	NC

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Routine Exposure, Short-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)	Short-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)	Short-Term Oral NOAEL (a) (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	N.American-adult	6.41E-06	3.55E-03	1.00E-03	5.89E+02	1.34E-08	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American-adult	6.41E-06	3.51E-03	1.00E-03	5.89E+02	1.32E-08	NA	NC
Typical	Aerial	Forested	Plane	N.American-adult	6.41E-06	3.87E-03	1.00E-03	5.89E+02	1.46E-08	NA	NC
Typical	Aerial	Forested	Helicopter	N.American-adult	6.41E-06	3.34E-03	1.00E-03	5.89E+02	1.26E-08	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American-adult	6.41E-06	3.34E-03	1.00E-03	5.89E+02	1.26E-08	NA	NC
Typical	Ground	Not applicable	High Boom	N.American-adult	6.41E-06	3.35E-03	1.00E-03	5.89E+02	1.27E-08	NA	NC
Max	Aerial	Non-Forested	Plane	N.American-adult	6.41E-06	4.74E-03	1.00E-03	5.89E+02	1.79E-08	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American-adult	6.41E-06	4.68E-03	1.00E-03	5.89E+02	1.76E-08	NA	NC
Max	Aerial	Forested	Plane	N.American-adult	6.41E-06	5.12E-03	1.00E-03	5.89E+02	1.93E-08	NA	NC
Max	Aerial	Forested	Helicopter	N.American-adult	6.41E-06	4.44E-03	1.00E-03	5.89E+02	1.68E-08	NA	NC
Max	Ground	Not applicable	Low Boom	N.American-adult	6.41E-06	4.44E-03	1.00E-03	5.89E+02	1.68E-08	NA	NC
Max	Ground	Not applicable	High Boom	N.American-adult	6.41E-06	4.47E-03	1.00E-03	5.89E+02	1.69E-08	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, Short-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	Short-Term Water Concentration (Cw) (mg a.i./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.i./kg-day)	Short-Term Oral NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)
Typical	Aerial	Non-Forested	Plane	Swimmer-child	3.55E-03	8.00E-03	2.84E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-child	3.51E-03	8.00E-03	2.80E-05	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-child	3.87E-03	8.00E-03	3.10E-05	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-child	3.34E-03	8.00E-03	2.67E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-child	3.34E-03	8.00E-03	2.67E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-child	3.35E-03	8.00E-03	2.68E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-child	4.74E-03	8.00E-03	3.79E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-child	4.68E-03	8.00E-03	3.74E-05	NA	NC
Max	Aerial	Forested	Plane	Swimmer-child	5.12E-03	8.00E-03	4.10E-05	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-child	4.44E-03	8.00E-03	3.56E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-child	4.44E-03	8.00E-03	3.56E-05	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-child	4.47E-03	8.00E-03	3.58E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	Swimmer-adult	3.55E-03	8.93E-04	3.17E-06	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Swimmer-adult	3.51E-03	8.93E-04	3.13E-06	NA	NC
Typical	Aerial	Forested	Plane	Swimmer-adult	3.87E-03	8.93E-04	3.46E-06	NA	NC
Typical	Aerial	Forested	Helicopter	Swimmer-adult	3.34E-03	8.93E-04	2.98E-06	NA	NC
Typical	Ground	Not applicable	Low Boom	Swimmer-adult	3.34E-03	8.93E-04	2.98E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Swimmer-adult	3.35E-03	8.93E-04	3.00E-06	NA	NC
Max	Aerial	Non-Forested	Plane	Swimmer-adult	4.74E-03	8.93E-04	4.23E-06	NA	NC
Max	Aerial	Non-Forested	Helicopter	Swimmer-adult	4.68E-03	8.93E-04	4.18E-06	NA	NC
Max	Aerial	Forested	Plane	Swimmer-adult	5.12E-03	8.93E-04	4.58E-06	NA	NC
Max	Aerial	Forested	Helicopter	Swimmer-adult	4.44E-03	8.93E-04	3.97E-06	NA	NC
Max	Ground	Not applicable	Low Boom	Swimmer-adult	4.44E-03	8.93E-04	3.97E-06	NA	NC
Max	Ground	Not applicable	High Boom	Swimmer-adult	4.47E-03	8.93E-04	3.99E-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, Short-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	Short-Term Water Concentration Cw (mg a.i./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.i./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Hiker/Hunter	3.55E-03	2.52E-02	8.93E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	3.51E-03	2.52E-02	8.82E-05	NA	NC
Typical	Aerial	Forested	Plane	Hiker/Hunter	3.87E-03	2.52E-02	9.74E-05	NA	NC
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	3.34E-03	2.52E-02	8.39E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	3.34E-03	2.52E-02	8.39E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	3.35E-03	2.52E-02	8.44E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	4.74E-03	2.52E-02	1.19E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	4.68E-03	2.52E-02	1.18E-04	NA	NC
Max	Aerial	Forested	Plane	Hiker/Hunter	5.12E-03	2.52E-02	1.29E-04	NA	NC
Max	Aerial	Forested	Helicopter	Hiker/Hunter	4.44E-03	2.52E-02	1.12E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	4.44E-03	2.52E-02	1.12E-04	NA	NC
Max	Ground	Not applicable	High Boom	Hiker/Hunter	4.47E-03	2.52E-02	1.12E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - child	3.55E-03	6.67E-02	2.37E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	3.51E-03	6.67E-02	2.34E-04	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	3.87E-03	6.67E-02	2.58E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	3.34E-03	6.67E-02	2.22E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	3.34E-03	6.67E-02	2.22E-04	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	3.35E-03	6.67E-02	2.24E-04	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	4.74E-03	6.67E-02	3.16E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	4.68E-03	6.67E-02	3.12E-04	NA	NC
Max	Aerial	Forested	Plane	Berry - child	5.12E-03	6.67E-02	3.42E-04	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	4.44E-03	6.67E-02	2.96E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	4.44E-03	6.67E-02	2.96E-04	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	4.47E-03	6.67E-02	2.98E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	3.55E-03	2.52E-02	8.93E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	3.51E-03	2.52E-02	8.82E-05	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	3.87E-03	2.52E-02	9.74E-05	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	3.34E-03	2.52E-02	8.39E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	3.34E-03	2.52E-02	8.39E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	3.35E-03	2.52E-02	8.44E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	4.74E-03	2.52E-02	1.19E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	4.68E-03	2.52E-02	1.18E-04	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	5.12E-03	2.52E-02	1.29E-04	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	4.44E-03	2.52E-02	1.12E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	4.44E-03	2.52E-02	1.12E-04	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	4.47E-03	2.52E-02	1.12E-04	NA	NC

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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	Short-Term Water Concentration Cw (mg a.i./L)	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg a.i./kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	3.55E-03	2.52E-02	8.93E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	3.51E-03	2.52E-02	8.82E-05	NA	NC
Typical	Aerial	Forested	Plane	Angler	3.87E-03	2.52E-02	9.74E-05	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	3.34E-03	2.52E-02	8.39E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	3.34E-03	2.52E-02	8.39E-05	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	3.35E-03	2.52E-02	8.44E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	4.74E-03	2.52E-02	1.19E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	4.68E-03	2.52E-02	1.18E-04	NA	NC
Max	Aerial	Forested	Plane	Angler	5.12E-03	2.52E-02	1.29E-04	NA	NC
Max	Aerial	Forested	Helicopter	Angler	4.44E-03	2.52E-02	1.12E-04	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	4.44E-03	2.52E-02	1.12E-04	NA	NC
Max	Ground	Not applicable	High Boom	Angler	4.47E-03	2.52E-02	1.12E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - child	3.55E-03	3.33E-02	1.18E-04	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - child	3.51E-03	3.33E-02	1.17E-04	NA	NC
Typical	Aerial	Forested	Plane	N.American - child	3.87E-03	3.33E-02	1.29E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - child	3.34E-03	3.33E-02	1.11E-04	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - child	3.34E-03	3.33E-02	1.11E-04	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - child	3.35E-03	3.33E-02	1.12E-04	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - child	4.74E-03	3.33E-02	1.58E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - child	4.68E-03	3.33E-02	1.56E-04	NA	NC
Max	Aerial	Forested	Plane	N.American - child	5.12E-03	3.33E-02	1.71E-04	NA	NC
Max	Aerial	Forested	Helicopter	N.American - child	4.44E-03	3.33E-02	1.48E-04	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - child	4.44E-03	3.33E-02	1.48E-04	NA	NC
Max	Ground	Not applicable	High Boom	N.American - child	4.47E-03	3.33E-02	1.49E-04	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - adult	3.55E-03	1.26E-02	4.47E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	3.51E-03	1.26E-02	4.41E-05	NA	NC
Typical	Aerial	Forested	Plane	N.American - adult	3.87E-03	1.26E-02	4.87E-05	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - adult	3.34E-03	1.26E-02	4.20E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - adult	3.34E-03	1.26E-02	4.20E-05	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - adult	3.35E-03	1.26E-02	4.22E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - adult	4.74E-03	1.26E-02	5.96E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - adult	4.68E-03	1.26E-02	5.88E-05	NA	NC
Max	Aerial	Forested	Plane	N.American - adult	5.12E-03	1.26E-02	6.44E-05	NA	NC
Max	Aerial	Forested	Helicopter	N.American - adult	4.44E-03	1.26E-02	5.59E-05	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - adult	4.44E-03	1.26E-02	5.59E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.American - adult	4.47E-03	1.26E-02	5.62E-05	NA	NC

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, Short-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	Short-Term Water Concentra (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)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)
Typical	Aerial	Non-Forested	Plane	Angler	3.55E-03	1.00E+00	1.00E-06	7.67E+02	2.72E-06	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Angler	3.51E-03	1.00E+00	1.00E-06	7.67E+02	2.69E-06	NA	NC
Typical	Aerial	Forested	Plane	Angler	3.87E-03	1.00E+00	1.00E-06	7.67E+02	2.97E-06	NA	NC
Typical	Aerial	Forested	Helicopter	Angler	3.34E-03	1.00E+00	1.00E-06	7.67E+02	2.56E-06	NA	NC
Typical	Ground	Not applicable	Low Boom	Angler	3.34E-03	1.00E+00	1.00E-06	7.67E+02	2.56E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Angler	3.35E-03	1.00E+00	1.00E-06	7.67E+02	2.57E-06	NA	NC
Max	Aerial	Non-Forested	Plane	Angler	4.74E-03	1.00E+00	1.00E-06	7.67E+02	3.64E-06	NA	NC
Max	Aerial	Non-Forested	Helicopter	Angler	4.68E-03	1.00E+00	1.00E-06	7.67E+02	3.59E-06	NA	NC
Max	Aerial	Forested	Plane	Angler	5.12E-03	1.00E+00	1.00E-06	7.67E+02	3.93E-06	NA	NC
Max	Aerial	Forested	Helicopter	Angler	4.44E-03	1.00E+00	1.00E-06	7.67E+02	3.41E-06	NA	NC
Max	Ground	Not applicable	Low Boom	Angler	4.44E-03	1.00E+00	1.00E-06	7.67E+02	3.41E-06	NA	NC
Max	Ground	Not applicable	High Boom	Angler	4.47E-03	1.00E+00	1.00E-06	7.67E+02	3.43E-06	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - child	3.55E-03	1.00E+00	1.00E-06	1.11E+04	3.95E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - child	3.51E-03	1.00E+00	1.00E-06	1.11E+04	3.90E-05	NA	NC
Typical	Aerial	Forested	Plane	N.American - child	3.87E-03	1.00E+00	1.00E-06	1.11E+04	4.31E-05	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - child	3.34E-03	1.00E+00	1.00E-06	1.11E+04	3.71E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - child	3.34E-03	1.00E+00	1.00E-06	1.11E+04	3.71E-05	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - child	3.35E-03	1.00E+00	1.00E-06	1.11E+04	3.73E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - child	4.74E-03	1.00E+00	1.00E-06	1.11E+04	5.28E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - child	4.68E-03	1.00E+00	1.00E-06	1.11E+04	5.21E-05	NA	NC
Max	Aerial	Forested	Plane	N.American - child	5.12E-03	1.00E+00	1.00E-06	1.11E+04	5.70E-05	NA	NC
Max	Aerial	Forested	Helicopter	N.American - child	4.44E-03	1.00E+00	1.00E-06	1.11E+04	4.95E-05	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - child	4.44E-03	1.00E+00	1.00E-06	1.11E+04	4.95E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.American - child	4.47E-03	1.00E+00	1.00E-06	1.11E+04	4.98E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - adult	3.55E-03	1.00E+00	1.00E-06	1.11E+04	3.95E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	3.51E-03	1.00E+00	1.00E-06	1.11E+04	3.90E-05	NA	NC
Typical	Aerial	Forested	Plane	N.American - adult	3.87E-03	1.00E+00	1.00E-06	1.11E+04	4.31E-05	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - adult	3.34E-03	1.00E+00	1.00E-06	1.11E+04	3.71E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - adult	3.34E-03	1.00E+00	1.00E-06	1.11E+04	3.71E-05	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - adult	3.35E-03	1.00E+00	1.00E-06	1.11E+04	3.73E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - adult	4.74E-03	1.00E+00	1.00E-06	1.11E+04	5.28E-05	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - adult	4.68E-03	1.00E+00	1.00E-06	1.11E+04	5.21E-05	NA	NC
Max	Aerial	Forested	Plane	N.American - adult	5.12E-03	1.00E+00	1.00E-06	1.11E+04	5.70E-05	NA	NC
Max	Aerial	Forested	Helicopter	N.American - adult	4.44E-03	1.00E+00	1.00E-06	1.11E+04	4.95E-05	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - adult	4.44E-03	1.00E+00	1.00E-06	1.11E+04	4.95E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.American - adult	4.47E-03	1.00E+00	1.00E-06	1.11E+04	4.98E-05	NA	NC

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, Short-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)	Acute 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	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	1.57E-05	4.00E+00	6.28E-05	NA	NC
Typical	Aerial	Forested	Plane	Berry - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	2.24E-06	4.00E+00	8.96E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+00	2.69E-05	4.00E+00	1.08E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+00	2.13E-05	4.00E+00	8.52E-05	NA	NC
Max	Aerial	Forested	Plane	Berry - child	1.00E+00	1.02E-04	4.00E+00	4.08E-04	NA	NC
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	NA	NC
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+00	1.46E-05	4.00E+00	5.84E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	1.90E-05	4.03E+00	7.65E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	1.57E-05	4.03E+00	6.32E-05	NA	NC
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	NA	NC
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	2.24E-06	4.03E+00	9.02E-06	NA	NC
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	NA	NC
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+00	2.69E-05	4.03E+00	1.08E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	NA	NC
Max	Aerial	Forested	Plane	Berry - adult	1.00E+00	1.02E-04	4.03E+00	4.10E-04	NA	NC
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	NA	NC
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	NA	NC
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+00	1.46E-05	4.03E+00	5.88E-05	NA	NC

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Routine Exposure, Short-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)	Acute 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	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	1.57E-05	4.00E+00	6.28E-05	NA	NC
Typical	Aerial	Forested	Plane	N.American - child	1.00E+00	8.06E-05	4.00E+00	3.23E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - child	1.00E+00	6.72E-06	4.00E+00	2.69E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	2.24E-06	4.00E+00	8.96E-06	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - child	1.00E+00	2.69E-05	4.00E+00	1.08E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - child	1.00E+00	2.13E-05	4.00E+00	8.52E-05	NA	NC
Max	Aerial	Forested	Plane	N.American - child	1.00E+00	1.02E-04	4.00E+00	4.08E-04	NA	NC
Max	Aerial	Forested	Helicopter	N.American - child	1.00E+00	8.96E-06	4.00E+00	3.58E-05	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - child	1.00E+00	3.36E-06	4.00E+00	1.34E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.American - child	1.00E+00	1.46E-05	4.00E+00	5.84E-05	NA	NC
Typical	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	1.90E-05	4.03E+00	7.65E-05	NA	NC
Typical	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	1.57E-05	4.03E+00	6.32E-05	NA	NC
Typical	Aerial	Forested	Plane	N.American - adult	1.00E+00	8.06E-05	4.03E+00	3.25E-04	NA	NC
Typical	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	6.72E-06	4.03E+00	2.70E-05	NA	NC
Typical	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	2.24E-06	4.03E+00	9.02E-06	NA	NC
Typical	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	NA	NC
Max	Aerial	Non-Forested	Plane	N.American - adult	1.00E+00	2.69E-05	4.03E+00	1.08E-04	NA	NC
Max	Aerial	Non-Forested	Helicopter	N.American - adult	1.00E+00	2.13E-05	4.03E+00	8.57E-05	NA	NC
Max	Aerial	Forested	Plane	N.American - adult	1.00E+00	1.02E-04	4.03E+00	4.10E-04	NA	NC
Max	Aerial	Forested	Helicopter	N.American - adult	1.00E+00	8.96E-06	4.03E+00	3.61E-05	NA	NC
Max	Ground	Not applicable	Low Boom	N.American - adult	1.00E+00	3.36E-06	4.03E+00	1.35E-05	NA	NC
Max	Ground	Not applicable	High Boom	N.American - adult	1.00E+00	1.46E-05	4.03E+00	5.88E-05	NA	NC

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 - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	NC	--	--	2.52E+02
Typical	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	3.27E+04	4.65E+05	--	--	NC	--	--	3.05E+02
Typical	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	6.36E+03	9.06E+04	--	--	NC	--	--	5.94E+01
Typical	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	7.63E+04	1.09E+06	--	--	NC	--	--	7.13E+02
Typical	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	2.29E+05	3.26E+06	--	--	NC	--	--	2.14E+03
Typical	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	1.53E+05	2.17E+06	--	--	NC	--	--	1.43E+03
Max	Aerial	Non-Forested	Plane	Hiker/Hunter	1.00E+02	1.91E+04	2.72E+05	--	--	NC	--	--	1.78E+02
Max	Aerial	Non-Forested	Helicopter	Hiker/Hunter	1.00E+02	2.41E+04	3.43E+05	--	--	NC	--	--	2.25E+02
Max	Aerial	Forested	Plane	Hiker/Hunter	1.00E+02	5.03E+03	7.17E+04	--	--	NC	--	--	4.70E+01
Max	Aerial	Forested	Helicopter	Hiker/Hunter	1.00E+02	5.72E+04	8.16E+05	--	--	NC	--	--	5.35E+02
Max	Ground	Not applicable	Low Boom	Hiker/Hunter	1.00E+02	1.53E+05	2.17E+06	--	--	NC	--	--	1.43E+03
Max	Ground	Not applicable	High Boom	Hiker/Hunter	1.00E+02	3.51E+04	5.00E+05	--	--	NC	--	--	3.28E+02
Typical	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	1.04E+04	1.28E+05	--	--	NC	NC	--	9.59E+01
Typical	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	1.25E+04	1.55E+05	--	--	NC	NC	--	1.16E+02
Typical	Aerial	Forested	Plane	Berry - child	1.00E+02	2.44E+03	3.01E+04	--	--	NC	NC	--	2.26E+01
Typical	Aerial	Forested	Helicopter	Berry - child	1.00E+02	2.93E+04	3.62E+05	--	--	NC	NC	--	2.71E+02
Typical	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	8.79E+04	1.09E+06	--	--	NC	NC	--	8.13E+02
Typical	Ground	Not applicable	High Boom	Berry - child	1.00E+02	5.86E+04	7.23E+05	--	--	NC	NC	--	5.42E+02
Max	Aerial	Non-Forested	Plane	Berry - child	1.00E+02	7.32E+03	9.04E+04	--	--	NC	NC	--	6.77E+01
Max	Aerial	Non-Forested	Helicopter	Berry - child	1.00E+02	9.25E+03	1.14E+05	--	--	NC	NC	--	8.55E+01
Max	Aerial	Forested	Plane	Berry - child	1.00E+02	1.93E+03	2.38E+04	--	--	NC	NC	--	1.79E+01
Max	Aerial	Forested	Helicopter	Berry - child	1.00E+02	2.20E+04	2.71E+05	--	--	NC	NC	--	2.03E+02
Max	Ground	Not applicable	Low Boom	Berry - child	1.00E+02	5.86E+04	7.23E+05	--	--	NC	NC	--	5.42E+02
Max	Ground	Not applicable	High Boom	Berry - child	1.00E+02	1.35E+04	1.66E+05	--	--	NC	NC	--	1.25E+02
Typical	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	2.70E+04	2.24E+05	--	--	NC	NC	--	2.41E+02
Typical	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	3.27E+04	2.71E+05	--	--	NC	NC	--	2.91E+02
Typical	Aerial	Forested	Plane	Berry - adult	1.00E+02	6.36E+03	5.27E+04	--	--	NC	NC	--	5.67E+01
Typical	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	7.63E+04	6.33E+05	--	--	NC	NC	--	6.81E+02
Typical	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	2.29E+05	1.90E+06	--	--	NC	NC	--	2.04E+03
Typical	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	1.53E+05	1.27E+06	--	--	NC	NC	--	1.36E+03
Max	Aerial	Non-Forested	Plane	Berry - adult	1.00E+02	1.91E+04	1.58E+05	--	--	NC	NC	--	1.70E+02
Max	Aerial	Non-Forested	Helicopter	Berry - adult	1.00E+02	2.41E+04	2.00E+05	--	--	NC	NC	--	2.15E+02
Max	Aerial	Forested	Plane	Berry - adult	1.00E+02	5.03E+03	4.17E+04	--	--	NC	NC	--	4.49E+01
Max	Aerial	Forested	Helicopter	Berry - adult	1.00E+02	5.72E+04	4.74E+05	--	--	NC	NC	--	5.11E+02
Max	Ground	Not applicable	Low Boom	Berry - adult	1.00E+02	1.53E+05	1.27E+06	--	--	NC	NC	--	1.36E+03
Max	Ground	Not applicable	High Boom	Berry - adult	1.00E+02	3.51E+04	2.91E+05	--	--	NC	NC	--	3.13E+02

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	--	NC	--	NC	2.52E+02
Typical	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	3.27E+04	4.65E+05	--	--	NC	--	NC	3.05E+02
Typical	Aerial	Forested	Plane	Angler	1.00E+02	6.36E+03	9.06E+04	--	--	NC	--	NC	5.94E+01
Typical	Aerial	Forested	Helicopter	Angler	1.00E+02	7.63E+04	1.09E+06	--	--	NC	--	NC	7.13E+02
Typical	Ground	Not applicable	Low Boom	Angler	1.00E+02	2.29E+05	3.26E+06	--	--	NC	--	NC	2.14E+03
Typical	Ground	Not applicable	High Boom	Angler	1.00E+02	1.53E+05	2.17E+06	--	--	NC	--	NC	1.43E+03
Max	Aerial	Non-Forested	Plane	Angler	1.00E+02	1.91E+04	2.72E+05	--	--	NC	--	NC	1.78E+02
Max	Aerial	Non-Forested	Helicopter	Angler	1.00E+02	2.41E+04	3.43E+05	--	--	NC	--	NC	2.25E+02
Max	Aerial	Forested	Plane	Angler	1.00E+02	5.03E+03	7.17E+04	--	--	NC	--	NC	4.70E+01
Max	Aerial	Forested	Helicopter	Angler	1.00E+02	5.72E+04	8.16E+05	--	--	NC	--	NC	5.35E+02
Max	Ground	Not applicable	Low Boom	Angler	1.00E+02	1.53E+05	2.17E+06	--	--	NC	--	NC	1.43E+03
Max	Ground	Not applicable	High Boom	Angler	1.00E+02	3.51E+04	5.00E+05	--	--	NC	--	NC	3.28E+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 - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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	--	NC	NC	NC	9.45E+01
Typical	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	1.25E+04	1.29E+05	NC	--	NC	NC	NC	1.14E+02
Typical	Aerial	Forested	Plane	N.A.-child	1.00E+02	2.44E+03	2.51E+04	NC	--	NC	NC	NC	2.23E+01
Typical	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	2.93E+04	3.01E+05	NC	--	NC	NC	NC	2.67E+02
Typical	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	8.79E+04	9.04E+05	NC	--	NC	NC	NC	8.01E+02
Typical	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	5.86E+04	6.03E+05	NC	--	NC	NC	NC	5.34E+02
Max	Aerial	Non-Forested	Plane	N.A.-child	1.00E+02	7.32E+03	7.53E+04	NC	--	NC	NC	NC	6.67E+01
Max	Aerial	Non-Forested	Helicopter	N.A.-child	1.00E+02	9.25E+03	9.51E+04	NC	--	NC	NC	NC	8.43E+01
Max	Aerial	Forested	Plane	N.A.-child	1.00E+02	1.93E+03	1.99E+04	NC	--	NC	NC	NC	1.76E+01
Max	Aerial	Forested	Helicopter	N.A.-child	1.00E+02	2.20E+04	2.26E+05	NC	--	NC	NC	NC	2.00E+02
Max	Ground	Not applicable	Low Boom	N.A.-child	1.00E+02	5.86E+04	6.03E+05	NC	--	NC	NC	NC	5.34E+02
Max	Ground	Not applicable	High Boom	N.A.-child	1.00E+02	1.35E+04	1.39E+05	NC	--	NC	NC	NC	1.23E+02
Typical	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	2.70E+04	1.86E+05	NC	--	NC	NC	NC	2.36E+02
Typical	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	3.27E+04	2.26E+05	NC	--	NC	NC	NC	2.85E+02
Typical	Aerial	Forested	Plane	N.A.-adult	1.00E+02	6.36E+03	4.39E+04	NC	--	NC	NC	NC	5.55E+01
Typical	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	7.63E+04	5.27E+05	NC	--	NC	NC	NC	6.67E+02
Typical	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	2.29E+05	1.58E+06	NC	--	NC	NC	NC	2.00E+03
Typical	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	1.53E+05	1.05E+06	NC	--	NC	NC	NC	1.33E+03
Max	Aerial	Non-Forested	Plane	N.A.-adult	1.00E+02	1.91E+04	1.32E+05	NC	--	NC	NC	NC	1.67E+02
Max	Aerial	Non-Forested	Helicopter	N.A.-adult	1.00E+02	2.41E+04	1.66E+05	NC	--	NC	NC	NC	2.10E+02
Max	Aerial	Forested	Plane	N.A.-adult	1.00E+02	5.03E+03	3.48E+04	NC	--	NC	NC	NC	4.39E+01
Max	Aerial	Forested	Helicopter	N.A.-adult	1.00E+02	5.72E+04	3.95E+05	NC	--	NC	NC	NC	5.00E+02
Max	Ground	Not applicable	Low Boom	N.A.-adult	1.00E+02	1.53E+05	1.05E+06	NC	--	NC	NC	NC	1.33E+03
Max	Ground	Not applicable	High Boom	N.A.-adult	1.00E+02	3.51E+04	2.43E+05	NC	--	NC	NC	NC	3.07E+02

Calculation: Aggregate Risk Index - Short Term Exposure Scenario
Scenario: Public Receptors - Routine Exposure, Short-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			Short-Term
						Short-Term Dermal (a)			Short Term Oral	Acute			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.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Accidental Exposure - Direct Spray of Person
Pathway: Dermal Contact with Herbicide

Herbicide	Public Receptor	Dermal Absorption Factor (DAF)	Maximum Application Rate (AR)	Application Rate Units	Exposure Factor (EF) (cm2/kg-day)	Unit Correction Factor (CF) (mg/cm2)/(lb/acre)	Dermal Dose (EF x AR x CF x DAF) (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless) Short	Target MOE (TM)	Aggregate Risk Index (ARI) [1/(TM/MOE)]
Aminopyralid	Angler	NA	1.10E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Aminopyralid	Berry Picker (Adult)	NA	1.10E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Aminopyralid	Berry Picker (Child)	NA	1.10E-01	lb a.e./acre	1.87E+02	1.12E-02	NC	NA	NC	NA	NC
Aminopyralid	Hiker/Hunter	NA	1.10E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Aminopyralid	Native American (Adult)	NA	1.10E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Aminopyralid	Native American (Child)	NA	1.10E-01	lb a.e./acre	1.87E+02	1.12E-02	NC	NA	NC	NA	NC
Aminopyralid	Residential (Adult)	NA	1.10E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Aminopyralid	Residential (Child)	NA	1.10E-01	lb a.e./acre	1.87E+02	1.12E-02	NC	NA	NC	NA	NC
Clopyralid	Angler	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Clopyralid	Berry Picker (Adult)	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Clopyralid	Berry Picker (Child)	NA	5.00E-01	lb a.e./acre	1.87E+02	1.12E-02	NC	NA	NC	NA	NC
Clopyralid	Hiker/Hunter	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Clopyralid	Native American (Adult)	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Clopyralid	Native American (Child)	NA	5.00E-01	lb a.e./acre	1.87E+02	1.12E-02	NC	NA	NC	NA	NC
Clopyralid	Residential (Adult)	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Clopyralid	Residential (Child)	NA	5.00E-01	lb a.e./acre	1.87E+02	1.12E-02	NC	NA	NC	NA	NC
2,4-D (Land; Annual/Perennial)	Angler	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	1.00E-01	2.00E+00	lb a.e./acre	1.87E+02	1.12E-02	4.19E-01	2.50E+01	5.97E+01	1.00E+03	**5.97E-02**
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Annual/Perennial)	Native American (Adult)	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	1.00E-01	2.00E+00	lb a.e./acre	1.87E+02	1.12E-02	4.19E-01	2.50E+01	5.97E+01	1.00E+03	**5.97E-02**
2,4-D (Land; Annual/Perennial)	Residential (Adult)	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Annual/Perennial)	Residential (Child)	1.00E-01	2.00E+00	lb a.e./acre	1.87E+02	1.12E-02	4.19E-01	2.50E+01	5.97E+01	1.00E+03	**5.97E-02**
2,4-D (Land; Woody Species)	Angler	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Land; Woody Species)	Berry Picker (Adult)	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Land; Woody Species)	Berry Picker (Child)	1.00E-01	4.00E+00	lb a.e./acre	1.87E+02	1.12E-02	8.37E-01	2.50E+01	2.99E+01	1.00E+03	**2.99E-02**
2,4-D (Land; Woody Species)	Hiker/Hunter	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Land; Woody Species)	Native American (Adult)	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Land; Woody Species)	Native American (Child)	1.00E-01	4.00E+00	lb a.e./acre	1.87E+02	1.12E-02	8.37E-01	2.50E+01	2.99E+01	1.00E+03	**2.99E-02**
2,4-D (Land; Woody Species)	Residential (Adult)	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Land; Woody Species)	Residential (Child)	1.00E-01	4.00E+00	lb a.e./acre	1.87E+02	1.12E-02	8.37E-01	2.50E+01	2.99E+01	1.00E+03	**2.99E-02**
2,4-D (Aquatic - Floating/Emerged)	Angler	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	1.00E-01	4.00E+00	lb a.e./acre	1.87E+02	1.12E-02	8.37E-01	2.50E+01	2.99E+01	1.00E+03	**2.99E-02**
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	1.00E-01	4.00E+00	lb a.e./acre	1.87E+02	1.12E-02	8.37E-01	2.50E+01	2.99E+01	1.00E+03	**2.99E-02**
2,4-D (Aquatic - Floating/Emerged)	Residential (Adult)	1.00E-01	4.00E+00	lb a.e./acre	7.17E+01	1.12E-02	3.22E-01	2.50E+01	7.77E+01	1.00E+03	**7.77E-02**
2,4-D (Aquatic - Floating/Emerged)	Residential (Child)	1.00E-01	4.00E+00	lb a.e./acre	1.87E+02	1.12E-02	8.37E-01	2.50E+01	2.99E+01	1.00E+03	**2.99E-02**
2,4-D (Aquatic - Submerged; liquid)	Angler	1.00E-01	1.08E+01	lb a.e./acre (a)	7.17E+01	1.12E-02	8.68E-01	2.50E+01	2.88E+01	1.00E+03	**2.88E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	1.00E-01	1.08E+01	lb a.e./acre (a)	7.17E+01	1.12E-02	8.68E-01	2.50E+01	2.88E+01	1.00E+03	**2.88E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	1.00E-01	1.08E+01	lb a.e./acre (a)	1.87E+02	1.12E-02	2.26E+00	2.50E+01	1.11E+01	1.00E+03	**1.11E-02**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	1.00E-01	1.08E+01	lb a.e./acre (a)	7.17E+01	1.12E-02	8.68E-01	2.50E+01	2.88E+01	1.00E+03	**2.88E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	1.00E-01	1.08E+01	lb a.e./acre (a)	7.17E+01	1.12E-02	8.68E-01	2.50E+01	2.88E+01	1.00E+03	**2.88E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	1.00E-01	1.08E+01	lb a.e./acre (a)	1.87E+02	1.12E-02	2.26E+00	2.50E+01	1.11E+01	1.00E+03	**1.11E-02**
2,4-D (Aquatic - Submerged; liquid)	Residential (Adult)	1.00E-01	1.08E+01	lb a.e./acre (a)	7.17E+01	1.12E-02	8.68E-01	2.50E+01	2.88E+01	1.00E+03	**2.88E-02**
2,4-D (Aquatic - Submerged; liquid)	Residential (Child)	1.00E-01	1.08E+01	lb a.e./acre (a)	1.87E+02	1.12E-02	2.26E+00	2.50E+01	1.11E+01	1.00E+03	**1.11E-02**

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Accidental Exposure - Direct Spray of Person
Pathway: Dermal Contact with Herbicide

Herbicide	Public Receptor	Dermal Absorption Factor (DAF)	Maximum Application Rate (AR)	Application Rate Units	Exposure Factor (EF) (cm2/kg-day)	Unit Correction Factor (CF) (mg/cm2)/(lb/acre)	Dermal Dose (EF x AR x CF x DAF) (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless) Short	Target MOE (TM)	Aggregate Risk Index (ARI) [1/(TM/MOE)]
Fluroxypyr	Angler	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Fluroxypyr	Berry Picker (Adult)	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Fluroxypyr	Berry Picker (Child)	NA	5.00E-01	lb a.e./acre	1.87E+02	1.12E-02	NC	NA	NC	NA	NC
Fluroxypyr	Hiker/Hunter	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Fluroxypyr	Native American (Adult)	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Fluroxypyr	Native American (Child)	NA	5.00E-01	lb a.e./acre	1.87E+02	1.12E-02	NC	NA	NC	NA	NC
Fluroxypyr	Residential (Adult)	NA	5.00E-01	lb a.e./acre	7.17E+01	1.12E-02	NC	NA	NC	NA	NC
Fluroxypyr	Residential (Child)	NA	5.00E-01	lb a.e./acre	1.87E+02	1.12E-02	NC	NA	NC	NA	NC
Rimsulfuron	Angler	1.00E-01	6.25E-02	lb a.e./acre	7.17E+01	1.12E-02	5.03E-03	6.25E+00	1.24E+03	1.00E+02	1.24E+01
Rimsulfuron	Berry Picker (Adult)	1.70E-01	6.25E-02	lb a.i./acre	7.17E+01	1.12E-02	8.54E-03	6.25E+00	7.32E+02	1.00E+02	7.32E+00
Rimsulfuron	Berry Picker (Child)	1.70E-01	6.25E-02	lb a.i./acre	1.87E+02	1.12E-02	2.22E-02	6.25E+00	2.81E+02	1.00E+02	2.81E+00
Rimsulfuron	Hiker/Hunter	1.70E-01	6.25E-02	lb a.i./acre	7.17E+01	1.12E-02	8.54E-03	6.25E+00	7.32E+02	1.00E+02	7.32E+00
Rimsulfuron	Native American (Adult)	1.70E-01	6.25E-02	lb a.i./acre	7.17E+01	1.12E-02	8.54E-03	6.25E+00	7.32E+02	1.00E+02	7.32E+00
Rimsulfuron	Native American (Child)	1.70E-01	6.25E-02	lb a.i./acre	1.87E+02	1.12E-02	2.22E-02	6.25E+00	2.81E+02	1.00E+02	2.81E+00
Rimsulfuron	Residential (Adult)	1.70E-01	6.25E-02	lb a.i./acre	7.17E+01	1.12E-02	8.54E-03	6.25E+00	7.32E+02	1.00E+02	7.32E+00
Rimsulfuron	Residential (Child)	1.70E-01	6.25E-02	lb a.i./acre	1.87E+02	1.12E-02	2.22E-02	6.25E+00	2.81E+02	1.00E+02	2.81E+00

a.e. - acid equivalent.
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) - For the purposes of this scenario, it is assumed that the herbicide is mixed for a one-foot pond depth; therefore, the application rates in lb a.e./acre-foot are multiplied by 1 foot to obtain units of lb a.e./acre.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Accidental Exposure - Re-entry to Posted Area
Pathway: Dermal Contact with Foliage

Herbicide	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Maximum Application Rate (AR)	Application Rate Units	Unit Correction Factor (CF) (mg/cm2)/(lb/acre)	Dislodgeable Foliar Residue (DFR) (AR x F x CF) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)	Target MOE (TM)	Aggregate Risk Index (ARI) [1/(TM/MOE)]
Aminopyralid	Angler	2.50E-01	NA	1.10E-01	lb a.e./acre	1.12E-02	3.08E-04	2.01E+01	NC	NA	NC	NA	NC
Aminopyralid	Berry Picker (Adult)	2.50E-01	NA	1.10E-01	lb a.e./acre	1.12E-02	3.08E-04	3.46E+01	NC	NA	NC	NA	NC
Aminopyralid	Berry Picker (Child)	2.50E-01	NA	1.10E-01	lb a.e./acre	1.12E-02	3.08E-04	6.05E+01	NC	NA	NC	NA	NC
Aminopyralid	Hiker/Hunter	2.50E-01	NA	1.10E-01	lb a.e./acre	1.12E-02	3.08E-04	2.01E+01	NC	NA	NC	NA	NC
Aminopyralid	Native American (Adult)	2.50E-01	NA	1.10E-01	lb a.e./acre	1.12E-02	3.08E-04	4.15E+01	NC	NA	NC	NA	NC
Aminopyralid	Native American (Child)	2.50E-01	NA	1.10E-01	lb a.e./acre	1.12E-02	3.08E-04	7.26E+01	NC	NA	NC	NA	NC
Aminopyralid	Residential (Adult)	1.00E-02	NA	1.10E-01	lb a.e./acre	1.12E-02	1.23E-05	3.40E+03	NC	NA	NC	NA	NC
Aminopyralid	Residential (Child)	1.00E-02	NA	1.10E-01	lb a.e./acre	1.12E-02	1.23E-05	5.94E+03	NC	NA	NC	NA	NC
Clopyralid	Angler	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	2.01E+01	NC	NA	NC	NA	NC
Clopyralid	Berry Picker (Adult)	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	3.46E+01	NC	NA	NC	NA	NC
Clopyralid	Berry Picker (Child)	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	6.05E+01	NC	NA	NC	NA	NC
Clopyralid	Hiker/Hunter	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	2.01E+01	NC	NA	NC	NA	NC
Clopyralid	Native American (Adult)	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	4.15E+01	NC	NA	NC	NA	NC
Clopyralid	Native American (Child)	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	7.26E+01	NC	NA	NC	NA	NC
Clopyralid	Residential (Adult)	1.00E-02	NA	5.00E-01	lb a.e./acre	1.12E-02	5.61E-05	3.40E+03	NC	NA	NC	NA	NC
Clopyralid	Residential (Child)	1.00E-02	NA	5.00E-01	lb a.e./acre	1.12E-02	5.61E-05	5.94E+03	NC	NA	NC	NA	NC
2,4-D (Land; Annual/Perennial)	Angler	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	2.01E+01	1.13E-02	2.50E+01	2.22E+03	1.00E+03	2.22E+00
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	3.46E+01	1.94E-02	2.50E+01	1.29E+03	1.00E+03	1.29E+00
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	6.05E+01	3.39E-02	2.50E+01	7.37E+02	1.00E+03	**7.37E-01**
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	2.01E+01	1.13E-02	2.50E+01	2.22E+03	1.00E+03	2.22E+00
2,4-D (Land; Annual/Perennial)	Native American (Adult)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	4.15E+01	2.33E-02	2.50E+01	1.07E+03	1.00E+03	1.07E+00
2,4-D (Land; Annual/Perennial)	Native American (Child)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	7.26E+01	4.07E-02	2.50E+01	6.14E+02	1.00E+03	**6.14E-01**
2,4-D (Land; Annual/Perennial)	Residential (Adult)	1.00E-02	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	2.24E-04	3.40E+03	7.62E-02	2.50E+01	3.28E+02	1.00E+03	**3.28E-01**
2,4-D (Land; Annual/Perennial)	Residential (Child)	1.00E-02	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	2.24E-04	5.94E+03	1.33E-01	2.50E+01	1.88E+02	1.00E+03	**1.88E-01**
2,4-D (Land; Woody Species)	Angler	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	2.01E+01	2.26E-02	2.50E+01	1.11E+03	1.00E+03	1.11E+00
2,4-D (Land; Woody Species)	Berry Picker (Adult)	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	3.46E+01	3.88E-02	2.50E+01	6.44E+02	1.00E+03	**6.44E-01**
2,4-D (Land; Woody Species)	Berry Picker (Child)	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	6.05E+01	6.78E-02	2.50E+01	3.68E+02	1.00E+03	**3.68E-01**
2,4-D (Land; Woody Species)	Hiker/Hunter	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	2.01E+01	2.26E-02	2.50E+01	1.11E+03	1.00E+03	1.11E+00
2,4-D (Land; Woody Species)	Native American (Adult)	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	4.15E+01	4.65E-02	2.50E+01	5.37E+02	1.00E+03	**5.37E-01**
2,4-D (Land; Woody Species)	Native American (Child)	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	7.26E+01	8.14E-02	2.50E+01	3.07E+02	1.00E+03	**3.07E-01**
2,4-D (Land; Woody Species)	Residential (Adult)	1.00E-02	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	4.49E-04	3.40E+03	1.52E-01	2.50E+01	1.64E+02	1.00E+03	**1.64E-01**
2,4-D (Land; Woody Species)	Residential (Child)	1.00E-02	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	4.49E-04	5.94E+03	2.66E-01	2.50E+01	9.38E+01	1.00E+03	**9.38E-02**
2,4-D (Aquatic - Floating/Emerged)	Angler	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	2.01E+01	2.26E-02	2.50E+01	1.11E+03	1.00E+03	1.11E+00
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	3.46E+01	3.88E-02	2.50E+01	6.44E+02	1.00E+03	**6.44E-01**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	6.05E+01	6.78E-02	2.50E+01	3.68E+02	1.00E+03	**3.68E-01**
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	2.01E+01	2.26E-02	2.50E+01	1.11E+03	1.00E+03	1.11E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	4.15E+01	4.65E-02	2.50E+01	5.37E+02	1.00E+03	**5.37E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	2.50E-01	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	1.12E-02	7.26E+01	8.14E-02	2.50E+01	3.07E+02	1.00E+03	**3.07E-01**
2,4-D (Aquatic - Floating/Emerged)	Residential (Adult)	1.00E-02	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	4.49E-04	3.40E+03	1.52E-01	2.50E+01	1.64E+02	1.00E+03	**1.64E-01**
2,4-D (Aquatic - Floating/Emerged)	Residential (Child)	1.00E-02	1.00E-01	4.00E+00	lb a.e./acre	1.12E-02	4.49E-04	5.94E+03	2.66E-01	2.50E+01	9.38E+01	1.00E+03	**9.38E-02**
2,4-D (Aquatic - Submerged; liquid)	Angler	2.50E-01	1.00E-01	1.08E+01	lb a.e./acre (a)	1.12E-02	3.03E-02	2.01E+01	6.09E-02	2.50E+01	4.10E+02	1.00E+03	**4.10E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	2.50E-01	1.00E-01	1.08E+01	lb a.e./acre (a)	1.12E-02	3.03E-02	3.46E+01	1.05E-01	2.50E+01	2.39E+02	1.00E+03	**2.39E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	2.50E-01	1.00E-01	1.08E+01	lb a.e./acre (a)	1.12E-02	3.03E-02	6.05E+01	1.83E-01	2.50E+01	1.36E+02	1.00E+03	**1.36E-01**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	2.50E-01	1.00E-01	1.08E+01	lb a.e./acre (a)	1.12E-02	3.03E-02	2.01E+01	6.09E-02	2.50E+01	4.10E+02	1.00E+03	**4.10E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	2.50E-01	1.00E-01	1.08E+01	lb a.e./acre (a)	1.12E-02	3.03E-02	4.15E+01	1.26E-01	2.50E+01	1.99E+02	1.00E+03	**1.99E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	2.50E-01	1.00E-01	1.08E+01	lb a.e./acre (a)	1.12E-02	3.03E-02	7.26E+01	2.20E-01	2.50E+01	1.14E+02	1.00E+03	**1.14E-01**
2,4-D (Aquatic - Submerged; liquid)	Residential (Adult)	1.00E-02	1.00E-01	1.08E+01	lb a.e./acre (a)	1.12E-02	1.21E-03	3.40E+03	4.11E-01	2.50E+01	6.08E+01	1.00E+03	**6.08E-02**
2,4-D (Aquatic - Submerged; liquid)	Residential (Child)	1.00E-02	1.00E-01	1.08E+01	lb a.e./acre (a)	1.12E-02	1.21E-03	5.94E+03	7.19E-01	2.50E+01	3.48E+01	1.00E+03	**3.48E-02**

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Accidental Exposure - Re-entry to Posted Area
Pathway: Dermal Contact with Foliage

Herbicide	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Maximum Application Rate (AR)	Application Rate Units	Unit Correction Factor (CF) (mg/cm2)/(lb/acre)	Dislodgeable Foliar Residue (DFR) (AR x F x CF) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)	Target MOE (TM)	Aggregate Risk Index (ARI) [1/(TM/MOE)]
Fluroxypyr	Angler	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	2.01E+01	NC	NA	NC	NA	NC
Fluroxypyr	Berry Picker (Adult)	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	3.46E+01	NC	NA	NC	NA	NC
Fluroxypyr	Berry Picker (Child)	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	6.05E+01	NC	NA	NC	NA	NC
Fluroxypyr	Hiker/Hunter	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	2.01E+01	NC	NA	NC	NA	NC
Fluroxypyr	Native American (Adult)	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	4.15E+01	NC	NA	NC	NA	NC
Fluroxypyr	Native American (Child)	2.50E-01	NA	5.00E-01	lb a.e./acre	1.12E-02	1.40E-03	7.26E+01	NC	NA	NC	NA	NC
Fluroxypyr	Residential (Adult)	1.00E-02	NA	5.00E-01	lb a.e./acre	1.12E-02	5.61E-05	3.40E+03	NC	NA	NC	NA	NC
Fluroxypyr	Residential (Child)	1.00E-02	NA	5.00E-01	lb a.e./acre	1.12E-02	5.61E-05	5.94E+03	NC	NA	NC	NA	NC
Rimsulfuron	Angler	2.50E-01	1.70E-01	6.25E-02	lb a.i./acre	1.12E-02	1.75E-04	2.01E+01	5.99E-04	6.25E+00	1.04E+04	1.00E+02	1.04E+02
Rimsulfuron	Berry Picker (Adult)	2.50E-01	1.70E-01	6.25E-02	lb a.i./acre	1.12E-02	1.75E-04	3.46E+01	1.03E-03	6.25E+00	6.07E+03	1.00E+02	6.07E+01
Rimsulfuron	Berry Picker (Child)	2.50E-01	1.70E-01	6.25E-02	lb a.i./acre	1.12E-02	1.75E-04	6.05E+01	1.80E-03	6.25E+00	3.47E+03	1.00E+02	3.47E+01
Rimsulfuron	Hiker/Hunter	2.50E-01	1.70E-01	6.25E-02	lb a.i./acre	1.12E-02	1.75E-04	2.01E+01	5.99E-04	6.25E+00	1.04E+04	1.00E+02	1.04E+02
Rimsulfuron	Native American (Adult)	2.50E-01	1.70E-01	6.25E-02	lb a.i./acre	1.12E-02	1.75E-04	4.15E+01	1.24E-03	6.25E+00	5.05E+03	1.00E+02	5.05E+01
Rimsulfuron	Native American (Child)	2.50E-01	1.70E-01	6.25E-02	lb a.i./acre	1.12E-02	1.75E-04	7.26E+01	2.16E-03	6.25E+00	2.89E+03	1.00E+02	2.89E+01
Rimsulfuron	Residential (Adult)	1.00E-02	1.70E-01	6.25E-02	lb a.i./acre	1.12E-02	7.01E-06	3.40E+03	4.05E-03	6.25E+00	1.54E+03	1.00E+02	1.54E+01
Rimsulfuron	Residential (Child)	1.00E-02	1.70E-01	6.25E-02	lb a.i./acre	1.12E-02	7.01E-06	5.94E+03	7.08E-03	6.25E+00	8.83E+02	1.00E+02	8.83E+00

a.e. - acid equivalent.
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) - For the purposes of this scenario, it is assumed that the herbicide is mixed for a one-foot pond depth; therefore, the application rates in lb a.e./acre-foot are multiplied by 1 foot to obtain units of lb a.e./acre.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Accidental Exposure - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Incidental Ingestion and Dermal Contact with Water While Swimming

Herbicide	Public Receptor	Accident Source	Dermal Skin Permeability Constant (Kp) (cm/hr)	Water Conc (Cw)	Units	Dermal Unit Correction Factor (CF) (L/cm3)	Dermal Contact Exposure Factor (EF) (cm2-hr/kg-day)	Dermal Contact Absorbed Dose (EF x Kp x CW x CF) (mg/kg-day)	Incidental Ingestion Exposure Factor (EF) (L/kg-day)	Incidental Ingestion Absorbed Dose (EF x Cw) (mg/kg-day)	Short-Term Oral NOAEL (a) (mg/kg-day)	Dermal MOE (MOEd) (NOAEL/DOSEd) (unitless)	Oral MOEo (NOAEL/DOSEo) (unitless)	Target MOE (TM)	Aggregate Risk Index (ARI) [1/((TM/MOEd)+(TM/MOEo))]
Aminopyralid	Swimmer (Child)	Spray	1.40E-06	1.23E-02	mg a.e./L	1.00E-03	4.40E+02	7.60E-09	8.00E-03	9.86E-05	1.04E+02	1.37E+10	1.05E+06	1.00E+02	1.05E+04
Aminopyralid	Swimmer (Child)	Helicopter	1.40E-06	1.38E+00	mg a.e./L	1.00E-03	4.40E+02	8.51E-07	8.00E-03	1.10E-02	1.04E+02	1.22E+08	9.41E+03	1.00E+02	9.41E+01
Aminopyralid	Swimmer (Child)	Truck	1.40E-06	3.95E-01	mg a.e./L	1.00E-03	4.40E+02	2.43E-07	8.00E-03	3.16E-03	1.04E+02	4.28E+08	3.29E+04	1.00E+02	3.29E+02
Clopyralid	Swimmer (Child)	Spray	2.45E-06	5.61E-02	mg a.e./L	1.00E-03	4.40E+02	6.04E-08	8.00E-03	4.48E-04	7.50E+01	1.24E+09	1.67E+05	1.00E+02	1.67E+03
Clopyralid	Swimmer (Child)	Helicopter	2.45E-06	6.28E+00	mg a.e./L	1.00E-03	4.40E+02	6.76E-06	8.00E-03	5.02E-02	7.50E+01	1.11E+07	1.49E+03	1.00E+02	1.49E+01
Clopyralid	Swimmer (Child)	Truck	2.45E-06	1.79E+00	mg a.e./L	1.00E-03	4.40E+02	1.93E-06	8.00E-03	1.43E-02	7.50E+01	3.88E+07	5.23E+03	1.00E+02	5.23E+01
2,4-D (Land; Annual/Perennial)	Swimmer (Child)	Spray	2.93E-05	2.24E-01	mg a.e./L	1.00E-03	4.40E+02	2.89E-06	8.00E-03	1.79E-03	2.50E+01	8.64E+06	1.39E+04	1.00E+03	1.39E+01
2,4-D (Land; Annual/Perennial)	Swimmer (Child)	Helicopter	2.93E-05	2.51E+01	mg a.e./L	1.00E-03	4.40E+02	3.24E-04	8.00E-03	2.01E-01	2.50E+01	7.71E+04	1.24E+02	1.00E+03	**1.24E-01**
2,4-D (Land; Annual/Perennial)	Swimmer (Child)	Truck	2.93E-05	7.17E+00	mg a.e./L	1.00E-03	4.40E+02	9.26E-05	8.00E-03	5.74E-02	2.50E+01	2.70E+05	4.36E+02	1.00E+03	**4.35E-01**
2,4-D (Land; Woody Species)	Swimmer (Child)	Spray	2.93E-05	4.48E-01	mg a.e./L	1.00E-03	4.40E+02	5.79E-06	8.00E-03	3.59E-03	2.50E+01	4.32E+06	6.97E+03	1.00E+03	6.96E+00
2,4-D (Land; Woody Species)	Swimmer (Child)	Helicopter	2.93E-05	5.02E+01	mg a.e./L	1.00E-03	4.40E+02	6.48E-04	8.00E-03	4.02E-01	2.50E+01	3.86E+04	6.22E+01	1.00E+03	**6.21E-02**
2,4-D (Land; Woody Species)	Swimmer (Child)	Truck	2.93E-05	1.43E+01	mg a.e./L	1.00E-03	4.40E+02	1.85E-04	8.00E-03	1.15E-01	2.50E+01	1.35E+05	2.18E+02	1.00E+03	**2.17E-01**
2,4-D (Aquatic - Floating/Emerged)	Swimmer (Child)	Spray	2.93E-05	4.48E-01	mg a.e./L	1.00E-03	4.40E+02	5.79E-06	8.00E-03	3.59E-03	2.50E+01	4.32E+06	6.97E+03	1.00E+03	6.96E+00
2,4-D (Aquatic - Floating/Emerged)	Swimmer (Child)	Helicopter	2.93E-05	5.02E+01	mg a.e./L	1.00E-03	4.40E+02	6.48E-04	8.00E-03	4.02E-01	2.50E+01	3.86E+04	6.22E+01	1.00E+03	**6.21E-02**
2,4-D (Aquatic - Floating/Emerged)	Swimmer (Child)	Truck	2.93E-05	1.43E+01	mg a.e./L	1.00E-03	4.40E+02	1.85E-04	8.00E-03	1.15E-01	2.50E+01	1.35E+05	2.18E+02	1.00E+03	**2.17E-01**
2,4-D (Aquatic - Submerged; liquid)	Swimmer (Child)	Spray	2.93E-05	3.97E+00	mg a.e./L	1.00E-03	4.40E+02	5.13E-05	8.00E-03	3.18E-02	2.50E+01	4.88E+05	7.87E+02	1.00E+03	**7.86E-01**
2,4-D (Aquatic - Submerged; liquid)	Swimmer (Child)	Helicopter	2.93E-05	1.36E+02	mg a.e./L	1.00E-03	4.40E+02	1.75E-03	8.00E-03	1.08E+00	2.50E+01	1.43E+04	2.30E+01	1.00E+03	**2.30E-02**
2,4-D (Aquatic - Submerged; liquid)	Swimmer (Child)	Truck	2.93E-05	3.87E+01	mg a.e./L	1.00E-03	4.40E+02	5.00E-04	8.00E-03	3.10E-01	2.50E+01	5.00E+04	8.07E+01	1.00E+03	**8.05E-02**
2,4-D (Aquatic - Submerged; granular)	Swimmer (Child)	Treatment	2.93E-05	4.26E+00	mg a.e./L	1.00E-03	4.40E+02	5.50E-05	8.00E-03	3.41E-02	2.50E+01	4.55E+05	7.34E+02	1.00E+03	**7.32E-01**
Fluroxypyr	Swimmer (Child)	Spray	2.95E-02	5.61E-02	mg a.e./L	1.00E-03	4.40E+02	7.28E-04	8.00E-03	4.48E-04	1.00E+02	1.37E+05	2.23E+05	1.00E+02	8.50E+02
Fluroxypyr	Swimmer (Child)	Helicopter	2.95E-02	6.28E+00	mg a.e./L	1.00E-03	4.40E+02	8.15E-02	8.00E-03	5.02E-02	1.00E+02	1.23E+03	1.99E+03	1.00E+02	7.59E+00
Fluroxypyr	Swimmer (Child)	Truck	2.95E-02	1.79E+00	mg a.e./L	1.00E-03	4.40E+02	2.33E-02	8.00E-03	1.43E-02	1.00E+02	4.29E+03	6.97E+03	1.00E+02	2.66E+01
Rimsulfuron	Swimmer (Child)	Spray	6.41E-06	7.01E-03	mg a.i./L	1.00E-03	4.40E+02	1.98E-08	--	--	NA	NC	NC	NA	NC
Rimsulfuron	Swimmer (Child)	Helicopter	6.41E-06	7.85E-01	mg a.i./L	1.00E-03	4.40E+02	2.21E-06	--	--	NA	NC	NC	NA	NC
Rimsulfuron	Swimmer (Child)	Truck	6.41E-06	2.24E-01	mg a.i./L	1.00E-03	4.40E+02	6.32E-07	8.00E-03	1.79E-03	NA	NC	NC	NA	NC

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Drinking Water Ingestion

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
Aminopyralid	Angler	Spray	1.23E-02	mg a.e./L	2.52E-02	3.10E-04	NA	NC	NC
Aminopyralid	Berry Picker (Adult)	Spray	1.23E-02	mg a.e./L	2.52E-02	3.10E-04	NA	NC	NC
Aminopyralid	Berry Picker (Child)	Spray	1.23E-02	mg a.e./L	6.67E-02	8.22E-04	NA	NC	NC
Aminopyralid	Hiker/Hunter	Spray	1.23E-02	mg a.e./L	2.52E-02	3.10E-04	NA	NC	NC
Aminopyralid	Native American (Adult)	Spray	1.23E-02	mg a.e./L	1.26E-02	1.55E-04	NA	NC	NC
Aminopyralid	Native American (Child)	Spray	1.23E-02	mg a.e./L	3.33E-02	4.11E-04	NA	NC	NC
Aminopyralid	Angler	Helicopter	1.38E+00	mg a.e./L	2.52E-02	3.47E-02	NA	NC	NC
Aminopyralid	Berry Picker (Adult)	Helicopter	1.38E+00	mg a.e./L	2.52E-02	3.47E-02	NA	NC	NC
Aminopyralid	Berry Picker (Child)	Helicopter	1.38E+00	mg a.e./L	6.67E-02	9.21E-02	NA	NC	NC
Aminopyralid	Hiker/Hunter	Helicopter	1.38E+00	mg a.e./L	2.52E-02	3.47E-02	NA	NC	NC
Aminopyralid	Native American (Adult)	Helicopter	1.38E+00	mg a.e./L	1.26E-02	1.74E-02	NA	NC	NC
Aminopyralid	Native American (Child)	Helicopter	1.38E+00	mg a.e./L	3.33E-02	4.60E-02	NA	NC	NC
Aminopyralid	Angler	Truck	3.95E-01	mg a.e./L	2.52E-02	9.93E-03	NA	NC	NC
Aminopyralid	Berry Picker (Adult)	Truck	3.95E-01	mg a.e./L	2.52E-02	9.93E-03	NA	NC	NC
Aminopyralid	Berry Picker (Child)	Truck	3.95E-01	mg a.e./L	6.67E-02	2.63E-02	NA	NC	NC
Aminopyralid	Hiker/Hunter	Truck	3.95E-01	mg a.e./L	2.52E-02	9.93E-03	NA	NC	NC
Aminopyralid	Native American (Adult)	Truck	3.95E-01	mg a.e./L	1.26E-02	4.96E-03	NA	NC	NC
Aminopyralid	Native American (Child)	Truck	3.95E-01	mg a.e./L	3.33E-02	1.32E-02	NA	NC	NC
Clopyralid	Angler	Spray	5.61E-02	mg a.e./L	2.52E-02	1.41E-03	7.50E-01	0.19%	5.32E+02
Clopyralid	Berry Picker (Adult)	Spray	5.61E-02	mg a.e./L	2.52E-02	1.41E-03	7.50E-01	0.19%	5.32E+02
Clopyralid	Berry Picker (Child)	Spray	5.61E-02	mg a.e./L	6.67E-02	3.74E-03	7.50E-01	0.50%	2.01E+02
Clopyralid	Hiker/Hunter	Spray	5.61E-02	mg a.e./L	2.52E-02	1.41E-03	7.50E-01	0.19%	5.32E+02
Clopyralid	Native American (Adult)	Spray	5.61E-02	mg a.e./L	1.26E-02	7.05E-04	7.50E-01	0.09%	1.06E+03
Clopyralid	Native American (Child)	Spray	5.61E-02	mg a.e./L	3.33E-02	1.87E-03	7.50E-01	0.25%	4.01E+02
Clopyralid	Angler	Helicopter	6.28E+00	mg a.e./L	2.52E-02	1.58E-01	7.50E-01	21.06%	4.75E+00
Clopyralid	Berry Picker (Adult)	Helicopter	6.28E+00	mg a.e./L	2.52E-02	1.58E-01	7.50E-01	21.06%	4.75E+00
Clopyralid	Berry Picker (Child)	Helicopter	6.28E+00	mg a.e./L	6.67E-02	4.19E-01	7.50E-01	55.80%	1.79E+00
Clopyralid	Hiker/Hunter	Helicopter	6.28E+00	mg a.e./L	2.52E-02	1.58E-01	7.50E-01	21.06%	4.75E+00
Clopyralid	Native American (Adult)	Helicopter	6.28E+00	mg a.e./L	1.26E-02	7.90E-02	7.50E-01	10.53%	9.50E+00
Clopyralid	Native American (Child)	Helicopter	6.28E+00	mg a.e./L	3.33E-02	2.09E-01	7.50E-01	27.90%	3.58E+00
Clopyralid	Angler	Truck	1.79E+00	mg a.e./L	2.52E-02	4.51E-02	7.50E-01	6.02%	1.66E+01
Clopyralid	Berry Picker (Adult)	Truck	1.79E+00	mg a.e./L	2.52E-02	4.51E-02	7.50E-01	6.02%	1.66E+01
Clopyralid	Berry Picker (Child)	Truck	1.79E+00	mg a.e./L	6.67E-02	1.20E-01	7.50E-01	15.94%	6.27E+00
Clopyralid	Hiker/Hunter	Truck	1.79E+00	mg a.e./L	2.52E-02	4.51E-02	7.50E-01	6.02%	1.66E+01
Clopyralid	Native American (Adult)	Truck	1.79E+00	mg a.e./L	1.26E-02	2.26E-02	7.50E-01	3.01%	3.32E+01
Clopyralid	Native American (Child)	Truck	1.79E+00	mg a.e./L	3.33E-02	5.98E-02	7.50E-01	7.97%	1.25E+01

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Drinking Water Ingestion

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
2,4-D (Land; Annual/Perennial)	Angler	Spray	2.24E-01	mg a.e./L	2.52E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	Spray	2.24E-01	mg a.e./L	2.52E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	Spray	2.24E-01	mg a.e./L	6.67E-02	1.49E-02	2.50E-02	59.79%	1.67E+00
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	Spray	2.24E-01	mg a.e./L	2.52E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Spray	2.24E-01	mg a.e./L	1.26E-02	2.82E-03	2.50E-02	11.28%	8.86E+00
2,4-D (Land; Annual/Perennial)	Native American (Child)	Spray	2.24E-01	mg a.e./L	3.33E-02	7.47E-03	2.50E-02	29.89%	3.35E+00
2,4-D (Land; Annual/Perennial)	Angler	Helicopter	2.51E+01	mg a.e./L	2.52E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	Helicopter	2.51E+01	mg a.e./L	2.52E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	Helicopter	2.51E+01	mg a.e./L	6.67E-02	1.67E+00	2.50E-02	6696.16%	**1.49E-02**
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	Helicopter	2.51E+01	mg a.e./L	2.52E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Helicopter	2.51E+01	mg a.e./L	1.26E-02	3.16E-01	2.50E-02	1263.43%	**7.91E-02**
2,4-D (Land; Annual/Perennial)	Native American (Child)	Helicopter	2.51E+01	mg a.e./L	3.33E-02	8.37E-01	2.50E-02	3348.08%	**2.99E-02**
2,4-D (Land; Annual/Perennial)	Angler	Truck	7.17E+00	mg a.e./L	2.52E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	Truck	7.17E+00	mg a.e./L	2.52E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	Truck	7.17E+00	mg a.e./L	6.67E-02	4.78E-01	2.50E-02	1913.19%	**5.23E-02**
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	Truck	7.17E+00	mg a.e./L	2.52E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Truck	7.17E+00	mg a.e./L	1.26E-02	9.02E-02	2.50E-02	360.98%	**2.77E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	Truck	7.17E+00	mg a.e./L	3.33E-02	2.39E-01	2.50E-02	956.59%	**1.05E-01**
2,4-D (Land; Woody Species)	Angler	Spray	4.48E-01	mg a.e./L	2.52E-02	1.13E-02	2.50E-02	45.12%	2.22E+00
2,4-D (Land; Woody Species)	Berry Picker (Adult)	Spray	4.48E-01	mg a.e./L	2.52E-02	1.13E-02	2.50E-02	45.12%	2.22E+00
2,4-D (Land; Woody Species)	Berry Picker (Child)	Spray	4.48E-01	mg a.e./L	6.67E-02	2.99E-02	2.50E-02	119.57%	**8.36E-01**
2,4-D (Land; Woody Species)	Hiker/Hunter	Spray	4.48E-01	mg a.e./L	2.52E-02	1.13E-02	2.50E-02	45.12%	2.22E+00
2,4-D (Land; Woody Species)	Native American (Adult)	Spray	4.48E-01	mg a.e./L	1.26E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Land; Woody Species)	Native American (Child)	Spray	4.48E-01	mg a.e./L	3.33E-02	1.49E-02	2.50E-02	59.79%	1.67E+00
2,4-D (Land; Woody Species)	Angler	Helicopter	5.02E+01	mg a.e./L	2.52E-02	1.26E+00	2.50E-02	5053.71%	**1.98E-02**
2,4-D (Land; Woody Species)	Berry Picker (Adult)	Helicopter	5.02E+01	mg a.e./L	2.52E-02	1.26E+00	2.50E-02	5053.71%	**1.98E-02**
2,4-D (Land; Woody Species)	Berry Picker (Child)	Helicopter	5.02E+01	mg a.e./L	6.67E-02	3.35E+00	2.50E-02	13392.32%	**7.47E-03**
2,4-D (Land; Woody Species)	Hiker/Hunter	Helicopter	5.02E+01	mg a.e./L	2.52E-02	1.26E+00	2.50E-02	5053.71%	**1.98E-02**
2,4-D (Land; Woody Species)	Native American (Adult)	Helicopter	5.02E+01	mg a.e./L	1.26E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Land; Woody Species)	Native American (Child)	Helicopter	5.02E+01	mg a.e./L	3.33E-02	1.67E+00	2.50E-02	6696.16%	**1.49E-02**
2,4-D (Land; Woody Species)	Angler	Truck	1.43E+01	mg a.e./L	2.52E-02	3.61E-01	2.50E-02	1443.92%	**6.93E-02**
2,4-D (Land; Woody Species)	Berry Picker (Adult)	Truck	1.43E+01	mg a.e./L	2.52E-02	3.61E-01	2.50E-02	1443.92%	**6.93E-02**
2,4-D (Land; Woody Species)	Berry Picker (Child)	Truck	1.43E+01	mg a.e./L	6.67E-02	9.57E-01	2.50E-02	3826.38%	**2.61E-02**
2,4-D (Land; Woody Species)	Hiker/Hunter	Truck	1.43E+01	mg a.e./L	2.52E-02	3.61E-01	2.50E-02	1443.92%	**6.93E-02**
2,4-D (Land; Woody Species)	Native American (Adult)	Truck	1.43E+01	mg a.e./L	1.26E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Land; Woody Species)	Native American (Child)	Truck	1.43E+01	mg a.e./L	3.33E-02	4.78E-01	2.50E-02	1913.19%	**5.23E-02**

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Drinking Water Ingestion

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
2,4-D (Aquatic - Floating/Emerged)	Angler	Spray	4.48E-01	mg a.e./L	2.52E-02	1.13E-02	2.50E-02	45.12%	2.22E+00
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	Spray	4.48E-01	mg a.e./L	2.52E-02	1.13E-02	2.50E-02	45.12%	2.22E+00
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	Spray	4.48E-01	mg a.e./L	6.67E-02	2.99E-02	2.50E-02	119.57%	**8.36E-01**
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	Spray	4.48E-01	mg a.e./L	2.52E-02	1.13E-02	2.50E-02	45.12%	2.22E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Spray	4.48E-01	mg a.e./L	1.26E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Spray	4.48E-01	mg a.e./L	3.33E-02	1.49E-02	2.50E-02	59.79%	1.67E+00
2,4-D (Aquatic - Floating/Emerged)	Angler	Helicopter	5.02E+01	mg a.e./L	2.52E-02	1.26E+00	2.50E-02	5053.71%	**1.98E-02**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	Helicopter	5.02E+01	mg a.e./L	2.52E-02	1.26E+00	2.50E-02	5053.71%	**1.98E-02**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	Helicopter	5.02E+01	mg a.e./L	6.67E-02	3.35E+00	2.50E-02	13392.32%	**7.47E-03**
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	Helicopter	5.02E+01	mg a.e./L	2.52E-02	1.26E+00	2.50E-02	5053.71%	**1.98E-02**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Helicopter	5.02E+01	mg a.e./L	1.26E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Helicopter	5.02E+01	mg a.e./L	3.33E-02	1.67E+00	2.50E-02	6696.16%	**1.49E-02**
2,4-D (Aquatic - Floating/Emerged)	Angler	Truck	1.43E+01	mg a.e./L	2.52E-02	3.61E-01	2.50E-02	1443.92%	**6.93E-02**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	Truck	1.43E+01	mg a.e./L	2.52E-02	3.61E-01	2.50E-02	1443.92%	**6.93E-02**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	Truck	1.43E+01	mg a.e./L	6.67E-02	9.57E-01	2.50E-02	3826.38%	**2.61E-02**
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	Truck	1.43E+01	mg a.e./L	2.52E-02	3.61E-01	2.50E-02	1443.92%	**6.93E-02**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Truck	1.43E+01	mg a.e./L	1.26E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Truck	1.43E+01	mg a.e./L	3.33E-02	4.78E-01	2.50E-02	1913.19%	**5.23E-02**
2,4-D (Aquatic - Submerged; liquid)	Angler	Spray	3.97E+00	mg a.e./L	2.52E-02	9.99E-02	2.50E-02	399.60%	**2.50E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	Spray	3.97E+00	mg a.e./L	2.52E-02	9.99E-02	2.50E-02	399.60%	**2.50E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	Spray	3.97E+00	mg a.e./L	6.67E-02	2.65E-01	2.50E-02	1058.95%	**9.44E-02**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	Spray	3.97E+00	mg a.e./L	2.52E-02	9.99E-02	2.50E-02	399.60%	**2.50E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Spray	3.97E+00	mg a.e./L	1.26E-02	5.00E-02	2.50E-02	199.80%	**5.00E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Spray	3.97E+00	mg a.e./L	3.33E-02	1.32E-01	2.50E-02	529.47%	**1.89E-01**
2,4-D (Aquatic - Submerged; liquid)	Angler	Helicopter	1.36E+02	mg a.e./L	2.52E-02	3.41E+00	2.50E-02	13645.00%	**7.33E-03**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	Helicopter	1.36E+02	mg a.e./L	2.52E-02	3.41E+00	2.50E-02	13645.00%	**7.33E-03**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	Helicopter	1.36E+02	mg a.e./L	6.67E-02	9.04E+00	2.50E-02	36159.26%	**2.77E-03**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	Helicopter	1.36E+02	mg a.e./L	2.52E-02	3.41E+00	2.50E-02	13645.00%	**7.33E-03**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Helicopter	1.36E+02	mg a.e./L	1.26E-02	1.71E+00	2.50E-02	6822.50%	**1.47E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Helicopter	1.36E+02	mg a.e./L	3.33E-02	4.52E+00	2.50E-02	18079.63%	**5.53E-03**
2,4-D (Aquatic - Submerged; liquid)	Angler	Truck	3.87E+01	mg a.e./L	2.52E-02	9.75E-01	2.50E-02	3898.57%	**2.57E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	Truck	3.87E+01	mg a.e./L	2.52E-02	9.75E-01	2.50E-02	3898.57%	**2.57E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	Truck	3.87E+01	mg a.e./L	6.67E-02	2.58E+00	2.50E-02	10331.22%	**9.68E-03**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	Truck	3.87E+01	mg a.e./L	2.52E-02	9.75E-01	2.50E-02	3898.57%	**2.57E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Truck	3.87E+01	mg a.e./L	1.26E-02	4.87E-01	2.50E-02	1949.29%	**5.13E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Truck	3.87E+01	mg a.e./L	3.33E-02	1.29E+00	2.50E-02	5165.61%	**1.94E-02**
2,4-D (Aquatic - Submerged; granular)	Angler	Treatment	4.26E+00	mg a.e./L	2.52E-02	1.07E-01	2.50E-02	428.66%	**2.33E-01**
2,4-D (Aquatic - Submerged; granular)	Berry Picker (Adult)	Treatment	4.26E+00	mg a.e./L	2.52E-02	1.07E-01	2.50E-02	428.66%	**2.33E-01**
2,4-D (Aquatic - Submerged; granular)	Berry Picker (Child)	Treatment	4.26E+00	mg a.e./L	6.67E-02	2.84E-01	2.50E-02	1135.96%	**8.80E-02**
2,4-D (Aquatic - Submerged; granular)	Hiker/Hunter	Treatment	4.26E+00	mg a.e./L	2.52E-02	1.07E-01	2.50E-02	428.66%	**2.33E-01**
2,4-D (Aquatic - Submerged; granular)	Native American (Adult)	Treatment	4.26E+00	mg a.e./L	1.26E-02	5.36E-02	2.50E-02	214.33%	**4.67E-01**
2,4-D (Aquatic - Submerged; granular)	Native American (Child)	Treatment	4.26E+00	mg a.e./L	3.33E-02	1.42E-01	2.50E-02	567.98%	**1.76E-01**

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Drinking Water Ingestion

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
Fluroxypyr	Angler	Spray	5.61E-02	mg a.e./L	2.52E-02	1.41E-03	NA	NC	NC
Fluroxypyr	Berry Picker (Adult)	Spray	5.61E-02	mg a.e./L	2.52E-02	1.41E-03	NA	NC	NC
Fluroxypyr	Berry Picker (Child)	Spray	5.61E-02	mg a.e./L	6.67E-02	3.74E-03	NA	NC	NC
Fluroxypyr	Hiker/Hunter	Spray	5.61E-02	mg a.e./L	2.52E-02	1.41E-03	NA	NC	NC
Fluroxypyr	Native American (Adult)	Spray	5.61E-02	mg a.e./L	1.26E-02	7.05E-04	NA	NC	NC
Fluroxypyr	Native American (Child)	Spray	5.61E-02	mg a.e./L	3.33E-02	1.87E-03	NA	NC	NC
Fluroxypyr	Angler	Helicopter	6.28E+00	mg a.e./L	2.52E-02	1.58E-01	NA	NC	NC
Fluroxypyr	Berry Picker (Adult)	Helicopter	6.28E+00	mg a.e./L	2.52E-02	1.58E-01	NA	NC	NC
Fluroxypyr	Berry Picker (Child)	Helicopter	6.28E+00	mg a.e./L	6.67E-02	4.19E-01	NA	NC	NC
Fluroxypyr	Hiker/Hunter	Helicopter	6.28E+00	mg a.e./L	2.52E-02	1.58E-01	NA	NC	NC
Fluroxypyr	Native American (Adult)	Helicopter	6.28E+00	mg a.e./L	1.26E-02	7.90E-02	NA	NC	NC
Fluroxypyr	Native American (Child)	Helicopter	6.28E+00	mg a.e./L	3.33E-02	2.09E-01	NA	NC	NC
Fluroxypyr	Angler	Truck	1.79E+00	mg a.e./L	2.52E-02	4.51E-02	NA	NC	NC
Fluroxypyr	Berry Picker (Adult)	Truck	1.79E+00	mg a.e./L	2.52E-02	4.51E-02	NA	NC	NC
Fluroxypyr	Berry Picker (Child)	Truck	1.79E+00	mg a.e./L	6.67E-02	1.20E-01	NA	NC	NC
Fluroxypyr	Hiker/Hunter	Truck	1.79E+00	mg a.e./L	2.52E-02	4.51E-02	NA	NC	NC
Fluroxypyr	Native American (Adult)	Truck	1.79E+00	mg a.e./L	1.26E-02	2.26E-02	NA	NC	NC
Fluroxypyr	Native American (Child)	Truck	1.79E+00	mg a.e./L	3.33E-02	5.98E-02	NA	NC	NC
Rimsulfuron	Angler	Spray	7.01E-03	mg a.i./L	2.52E-02	1.76E-04	NA	NC	NC
Rimsulfuron	Berry Picker (Adult)	Spray	7.01E-03	mg a.i./L	2.52E-02	1.76E-04	NA	NC	NC
Rimsulfuron	Berry Picker (Child)	Spray	7.01E-03	mg a.i./L	6.67E-02	4.67E-04	NA	NC	NC
Rimsulfuron	Hiker/Hunter	Spray	7.01E-03	mg a.i./L	2.52E-02	1.76E-04	NA	NC	NC
Rimsulfuron	Native American (Adult)	Spray	7.01E-03	mg a.i./L	1.26E-02	8.81E-05	NA	NC	NC
Rimsulfuron	Native American (Child)	Spray	7.01E-03	mg a.i./L	3.33E-02	2.34E-04	NA	NC	NC
Rimsulfuron	Angler	Helicopter	7.85E-01	mg a.i./L	2.52E-02	1.97E-02	NA	NC	NC
Rimsulfuron	Berry Picker (Adult)	Helicopter	7.85E-01	mg a.i./L	2.52E-02	1.97E-02	NA	NC	NC
Rimsulfuron	Berry Picker (Child)	Helicopter	7.85E-01	mg a.i./L	6.67E-02	5.23E-02	NA	NC	NC
Rimsulfuron	Hiker/Hunter	Helicopter	7.85E-01	mg a.i./L	2.52E-02	1.97E-02	NA	NC	NC
Rimsulfuron	Native American (Adult)	Helicopter	7.85E-01	mg a.i./L	1.26E-02	9.87E-03	NA	NC	NC
Rimsulfuron	Native American (Child)	Helicopter	7.85E-01	mg a.i./L	3.33E-02	2.62E-02	NA	NC	NC
Rimsulfuron	Angler	Truck	2.24E-01	mg a.i./L	2.52E-02	5.64E-03	NA	NC	NC
Rimsulfuron	Berry Picker (Adult)	Truck	2.24E-01	mg a.i./L	2.52E-02	5.64E-03	NA	NC	NC
Rimsulfuron	Berry Picker (Child)	Truck	2.24E-01	mg a.i./L	6.67E-02	1.49E-02	NA	NC	NC
Rimsulfuron	Hiker/Hunter	Truck	2.24E-01	mg a.i./L	2.52E-02	5.64E-03	NA	NC	NC
Rimsulfuron	Native American (Adult)	Truck	2.24E-01	mg a.i./L	1.26E-02	2.82E-03	NA	NC	NC
Rimsulfuron	Native American (Child)	Truck	2.24E-01	mg a.i./L	3.33E-02	7.47E-03	NA	NC	NC

a.e. - acid equivalent.
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 Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Ingestion of Fish

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	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/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
Aminopyralid	Angler	Spray	1.23E-02	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	9.46E-06	NA	NC	NC
Aminopyralid	Native American (Adult)	Spray	1.23E-02	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.37E-04	NA	NC	NC
Aminopyralid	Native American (Child)	Spray	1.23E-02	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.37E-04	NA	NC	NC
Aminopyralid	Angler	Helicopter	1.38E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.06E-03	NA	NC	NC
Aminopyralid	Native American (Adult)	Helicopter	1.38E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.54E-02	NA	NC	NC
Aminopyralid	Native American (Child)	Helicopter	1.38E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.54E-02	NA	NC	NC
Aminopyralid	Angler	Truck	3.95E-01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	3.03E-04	NA	NC	NC
Aminopyralid	Native American (Adult)	Truck	3.95E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.39E-03	NA	NC	NC
Aminopyralid	Native American (Child)	Truck	3.95E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.39E-03	NA	NC	NC
Clopyralid	Angler	Spray	5.61E-02	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	4.30E-05	7.50E-01	0.01%	1.74E+04
Clopyralid	Native American (Adult)	Spray	5.61E-02	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	6.24E-04	7.50E-01	0.08%	1.20E+03
Clopyralid	Native American (Child)	Spray	5.61E-02	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	6.24E-04	7.50E-01	0.08%	1.20E+03
Clopyralid	Angler	Helicopter	6.28E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	4.82E-03	7.50E-01	0.64%	1.56E+02
Clopyralid	Native American (Adult)	Helicopter	6.28E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	6.99E-02	7.50E-01	9.32%	1.07E+01
Clopyralid	Native American (Child)	Helicopter	6.28E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	6.99E-02	7.50E-01	9.32%	1.07E+01
Clopyralid	Angler	Truck	1.79E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.38E-03	7.50E-01	0.18%	5.45E+02
Clopyralid	Native American (Adult)	Truck	1.79E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.00E-02	7.50E-01	2.66%	3.76E+01
Clopyralid	Native American (Child)	Truck	1.79E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.00E-02	7.50E-01	2.66%	3.76E+01
2,4-D (Land; Annual/Perennial)	Angler	Spray	2.24E-01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.72E-04	2.50E-02	0.69%	1.45E+02
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Spray	2.24E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.50E-03	2.50E-02	9.98%	1.00E+01
2,4-D (Land; Annual/Perennial)	Native American (Child)	Spray	2.24E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.50E-03	2.50E-02	9.98%	1.00E+01
2,4-D (Land; Annual/Perennial)	Angler	Helicopter	2.51E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.93E-02	2.50E-02	77.07%	1.30E+00
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Helicopter	2.51E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.80E-01	2.50E-02	1118.13%	**8.94E-02**
2,4-D (Land; Annual/Perennial)	Native American (Child)	Helicopter	2.51E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.80E-01	2.50E-02	1118.26%	**8.94E-02**
2,4-D (Land; Annual/Perennial)	Angler	Truck	7.17E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	5.50E-03	2.50E-02	22.02%	4.54E+00
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Truck	7.17E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	7.99E-02	2.50E-02	319.47%	**3.13E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	Truck	7.17E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	7.99E-02	2.50E-02	319.50%	**3.13E-01**
2,4-D (Land; Woody Species)	Angler	Spray	4.48E-01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	3.44E-04	2.50E-02	1.38%	7.27E+01
2,4-D (Land; Woody Species)	Native American (Adult)	Spray	4.48E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.99E-03	2.50E-02	19.97%	5.01E+00
2,4-D (Land; Woody Species)	Native American (Child)	Spray	4.48E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.99E-03	2.50E-02	19.97%	5.01E+00
2,4-D (Land; Woody Species)	Angler	Helicopter	5.02E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	3.85E-02	2.50E-02	154.14%	**6.49E-01**
2,4-D (Land; Woody Species)	Native American (Adult)	Helicopter	5.02E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	5.59E-01	2.50E-02	2236.26%	**4.47E-02**
2,4-D (Land; Woody Species)	Native American (Child)	Helicopter	5.02E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	5.59E-01	2.50E-02	2236.52%	**4.47E-02**
2,4-D (Land; Woody Species)	Angler	Truck	1.43E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.10E-02	2.50E-02	44.04%	2.27E+00
2,4-D (Land; Woody Species)	Native American (Adult)	Truck	1.43E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.60E-01	2.50E-02	638.93%	**1.57E-01**
2,4-D (Land; Woody Species)	Native American (Child)	Truck	1.43E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.60E-01	2.50E-02	639.00%	**1.56E-01**
2,4-D (Aquatic - Floating/Emerged)	Angler	Spray	4.48E-01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	3.44E-04	2.50E-02	1.38%	7.27E+01
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Spray	4.48E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.99E-03	2.50E-02	19.97%	5.01E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Spray	4.48E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.99E-03	2.50E-02	19.97%	5.01E+00
2,4-D (Aquatic - Floating/Emerged)	Angler	Helicopter	5.02E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	3.85E-02	2.50E-02	154.14%	**6.49E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Helicopter	5.02E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	5.59E-01	2.50E-02	2236.26%	**4.47E-02**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Helicopter	5.02E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	5.59E-01	2.50E-02	2236.52%	**4.47E-02**
2,4-D (Aquatic - Floating/Emerged)	Angler	Truck	1.43E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.10E-02	2.50E-02	44.04%	2.27E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Truck	1.43E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.60E-01	2.50E-02	638.93%	**1.57E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Truck	1.43E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.60E-01	2.50E-02	639.00%	**1.56E-01**

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Ingestion of Fish

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	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/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
2,4-D (Aquatic - Submerged; liquid)	Angler	Spray	3.97E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	3.05E-03	2.50E-02	12.19%	8.20E+00
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Spray	3.97E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.42E-02	2.50E-02	176.82%	**5.66E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Spray	3.97E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.42E-02	2.50E-02	176.84%	**5.65E-01**
2,4-D (Aquatic - Submerged; liquid)	Angler	Helicopter	1.36E+02	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.04E-01	2.50E-02	416.17%	**2.40E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Helicopter	1.36E+02	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.51E+00	2.50E-02	6037.91%	**1.66E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Helicopter	1.36E+02	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.51E+00	2.50E-02	6038.60%	**1.66E-02**
2,4-D (Aquatic - Submerged; liquid)	Angler	Truck	3.87E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	2.97E-02	2.50E-02	118.91%	**8.41E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Truck	3.87E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.31E-01	2.50E-02	1725.12%	**5.80E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Truck	3.87E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.31E-01	2.50E-02	1725.31%	**5.80E-02**
2,4-D (Aquatic - Submerged; granular)	Angler	Treatment	4.26E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	3.27E-03	2.50E-02	13.07%	7.65E+00
2,4-D (Aquatic - Submerged; granular)	Native American (Adult)	Treatment	4.26E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.74E-02	2.50E-02	189.68%	**5.27E-01**
2,4-D (Aquatic - Submerged; granular)	Native American (Child)	Treatment	4.26E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	4.74E-02	2.50E-02	189.70%	**5.27E-01**
Fluroxypyr	Angler	Spray	5.61E-02	mg a.e./L	6.06E+00	1.00E-06	7.67E+02	2.61E-04	NA	NC	NC
Fluroxypyr	Native American (Adult)	Spray	5.61E-02	mg a.e./L	6.06E+00	1.00E-06	1.11E+04	3.78E-03	NA	NC	NC
Fluroxypyr	Native American (Child)	Spray	5.61E-02	mg a.e./L	6.06E+00	1.00E-06	1.11E+04	3.78E-03	NA	NC	NC
Fluroxypyr	Angler	Helicopter	6.28E+00	mg a.e./L	6.06E+00	1.00E-06	7.67E+02	2.92E-02	NA	NC	NC
Fluroxypyr	Native American (Adult)	Helicopter	6.28E+00	mg a.e./L	6.06E+00	1.00E-06	1.11E+04	4.23E-01	NA	NC	NC
Fluroxypyr	Native American (Child)	Helicopter	6.28E+00	mg a.e./L	6.06E+00	1.00E-06	1.11E+04	4.24E-01	NA	NC	NC
Fluroxypyr	Angler	Truck	1.79E+00	mg a.e./L	6.06E+00	1.00E-06	7.67E+02	8.34E-03	NA	NC	NC
Fluroxypyr	Native American (Adult)	Truck	1.79E+00	mg a.e./L	6.06E+00	1.00E-06	1.11E+04	1.21E-01	NA	NC	NC
Fluroxypyr	Native American (Child)	Truck	1.79E+00	mg a.e./L	6.06E+00	1.00E-06	1.11E+04	1.21E-01	NA	NC	NC
Rimsulfuron	Angler	Spray	7.01E-03	mg a.i./L	1.00E+00	1.00E-06	7.67E+02	5.38E-06	NA	NC	NC
Rimsulfuron	Native American (Adult)	Spray	7.01E-03	mg a.i./L	1.00E+00	1.00E-06	1.11E+04	7.80E-05	NA	NC	NC
Rimsulfuron	Native American (Child)	Spray	7.01E-03	mg a.i./L	1.00E+00	1.00E-06	1.11E+04	7.80E-05	NA	NC	NC
Rimsulfuron	Angler	Helicopter	7.85E-01	mg a.i./L	1.00E+00	1.00E-06	7.67E+02	6.02E-04	NA	NC	NC
Rimsulfuron	Native American (Adult)	Helicopter	7.85E-01	mg a.i./L	1.00E+00	1.00E-06	1.11E+04	8.74E-03	NA	NC	NC
Rimsulfuron	Native American (Child)	Helicopter	7.85E-01	mg a.i./L	1.00E+00	1.00E-06	1.11E+04	8.74E-03	NA	NC	NC
Rimsulfuron	Angler	Truck	2.24E-01	mg a.i./L	1.00E+00	1.00E-06	7.67E+02	1.72E-04	NA	NC	NC
Rimsulfuron	Native American (Adult)	Truck	2.24E-01	mg a.i./L	1.00E+00	1.00E-06	1.11E+04	2.50E-03	NA	NC	NC
Rimsulfuron	Native American (Child)	Truck	2.24E-01	mg a.i./L	1.00E+00	1.00E-06	1.11E+04	2.50E-03	NA	NC	NC

a.e. - acid equivalent.
a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure - Re-entry to Posted Area
Pathway: Ingestion of Berries

Herbicide	Public Receptor	Fraction Retained on Berry (F)	Maximum Application Rate (AR)	Application Rate Units	Unit Correction Factor (CF) (mg/cm2)/(lb/acre)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (AR x F x CF x EF) (mg/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
Aminopyralid	Berry Picker (Adult)	1.00E+00	1.10E-01	lb a.e./acre	1.12E-02	4.03E+00	4.97E-03	NA	NC	NC
Aminopyralid	Berry Picker (Child)	1.00E+00	1.10E-01	lb a.e./acre	1.12E-02	4.00E+00	4.93E-03	NA	NC	NC
Aminopyralid	Native American (Adult)	1.00E+00	1.10E-01	lb a.e./acre	1.12E-02	4.03E+00	4.97E-03	NA	NC	NC
Aminopyralid	Native American (Child)	1.00E+00	1.10E-01	lb a.e./acre	1.12E-02	4.00E+00	4.93E-03	NA	NC	NC
Clopyralid	Berry Picker (Adult)	1.00E+00	5.00E-01	lb a.e./acre	1.12E-02	4.03E+00	2.26E-02	7.50E-01	3.01%	3.32E+01
Clopyralid	Berry Picker (Child)	1.00E+00	5.00E-01	lb a.e./acre	1.12E-02	4.00E+00	2.24E-02	7.50E-01	2.99%	3.34E+01
Clopyralid	Native American (Adult)	1.00E+00	5.00E-01	lb a.e./acre	1.12E-02	4.03E+00	2.26E-02	7.50E-01	3.01%	3.32E+01
Clopyralid	Native American (Child)	1.00E+00	5.00E-01	lb a.e./acre	1.12E-02	4.00E+00	2.24E-02	7.50E-01	2.99%	3.34E+01
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.03E+00	9.03E-02	2.50E-02	361.10%	**2.77E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.00E+00	8.97E-02	2.50E-02	358.84%	**2.79E-01**
2,4-D (Land; Annual/Perennial)	Native American (Adult)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.03E+00	9.03E-02	2.50E-02	361.10%	**2.77E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.00E+00	8.97E-02	2.50E-02	358.84%	**2.79E-01**
2,4-D (Land; Woody Species)	Berry Picker (Adult)	1.00E+00	4.00E+00	lb a.e./acre	1.12E-02	4.03E+00	1.81E-01	2.50E-02	722.20%	**1.38E-01**
2,4-D (Land; Woody Species)	Berry Picker (Child)	1.00E+00	4.00E+00	lb a.e./acre	1.12E-02	4.00E+00	1.79E-01	2.50E-02	717.68%	**1.39E-01**
2,4-D (Land; Woody Species)	Native American (Adult)	1.00E+00	4.00E+00	lb a.e./acre	1.12E-02	4.03E+00	1.81E-01	2.50E-02	722.20%	**1.38E-01**
2,4-D (Land; Woody Species)	Native American (Child)	1.00E+00	4.00E+00	lb a.e./acre	1.12E-02	4.00E+00	1.79E-01	2.50E-02	717.68%	**1.39E-01**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	1.00E+00	4.00E+00	lb a.e./acre	1.12E-02	4.03E+00	1.81E-01	2.50E-02	722.20%	**1.38E-01**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	1.00E+00	4.00E+00	lb a.e./acre	1.12E-02	4.00E+00	1.79E-01	2.50E-02	717.68%	**1.39E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	1.00E+00	4.00E+00	lb a.e./acre	1.12E-02	4.03E+00	1.81E-01	2.50E-02	722.20%	**1.38E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	1.00E+00	4.00E+00	lb a.e./acre	1.12E-02	4.00E+00	1.79E-01	2.50E-02	717.68%	**1.39E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	1.00E+00	1.08E+01	lb a.e./acre (a)	1.12E-02	4.03E+00	4.87E-01	2.50E-02	1949.93%	**5.13E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	1.00E+00	1.08E+01	lb a.e./acre (a)	1.12E-02	4.00E+00	4.84E-01	2.50E-02	1937.74%	**5.16E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	1.00E+00	1.08E+01	lb a.e./acre (a)	1.12E-02	4.03E+00	4.87E-01	2.50E-02	1949.93%	**5.13E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	1.00E+00	1.08E+01	lb a.e./acre (a)	1.12E-02	4.00E+00	4.84E-01	2.50E-02	1937.74%	**5.16E-02**
Fluroxypyr	Berry Picker (Adult)	1.00E+00	5.00E-01	lb a.e./acre	1.12E-02	4.03E+00	2.26E-02	NA	NC	NC
Fluroxypyr	Berry Picker (Child)	1.00E+00	5.00E-01	lb a.e./acre	1.12E-02	4.00E+00	2.24E-02	NA	NC	NC
Fluroxypyr	Native American (Adult)	1.00E+00	5.00E-01	lb a.e./acre	1.12E-02	4.03E+00	2.26E-02	NA	NC	NC
Fluroxypyr	Native American (Child)	1.00E+00	5.00E-01	lb a.e./acre	1.12E-02	4.00E+00	2.24E-02	NA	NC	NC
Rimsulfuron	Berry Picker (Adult)	1.00E+00	6.25E-02	lb a.i./acre	1.12E-02	4.03E+00	2.82E-03	NA	NC	NC
Rimsulfuron	Berry Picker (Child)	1.00E+00	6.25E-02	lb a.i./acre	1.12E-02	4.00E+00	2.80E-03	NA	NC	NC
Rimsulfuron	Native American (Adult)	1.00E+00	6.25E-02	lb a.i./acre	1.12E-02	4.03E+00	2.82E-03	NA	NC	NC
Rimsulfuron	Native American (Child)	1.00E+00	6.25E-02	lb a.i./acre	1.12E-02	4.00E+00	2.80E-03	NA	NC	NC

a.e. - acid equivalent.
a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose.
(a) - For the purposes of this scenario, it is assumed that the herbicide is mixed for a one-foot pond depth; therefore, the application rates in lb a.e./acre-foot are multiplied by 1 foot to obtain units of lb a.e./acre.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Accidental Exposure (Typical Application Rate) - Direct Spray of Person
Pathway: Dermal Contact with Herbicide

Herbicide	Public Receptor	Dermal Absorption Factor (DAF)	Typical Application Rate (AR)	Application Rate Units	Exposure Factor (EF) (cm2/kg-day)	Unit Correction Factor (CF) (mg/cm2)/(lb/acre)	Dermal Dose (EF x AR x CF x DAF) (mg/kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless) Short	Target MOE (TM)	Aggregate Risk Index (ARI) [1/(TM/MOE)]
2,4-D (Land; Annual/Perennial)	Angler	1.00E-01	1.00E+00	lb a.e./acre	7.17E+01	1.12E-02	8.04E-02	2.50E+01	3.11E+02	1.00E+03	**3.11E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	1.00E-01	1.00E+00	lb a.e./acre	7.17E+01	1.12E-02	8.04E-02	2.50E+01	3.11E+02	1.00E+03	**3.11E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	1.00E-01	1.00E+00	lb a.e./acre	1.87E+02	1.12E-02	2.09E-01	2.50E+01	1.19E+02	1.00E+03	**1.19E-01**
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	1.00E-01	1.00E+00	lb a.e./acre	7.17E+01	1.12E-02	8.04E-02	2.50E+01	3.11E+02	1.00E+03	**3.11E-01**
2,4-D (Land; Annual/Perennial)	Native American (Adult)	1.00E-01	1.00E+00	lb a.e./acre	7.17E+01	1.12E-02	8.04E-02	2.50E+01	3.11E+02	1.00E+03	**3.11E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	1.00E-01	1.00E+00	lb a.e./acre	1.87E+02	1.12E-02	2.09E-01	2.50E+01	1.19E+02	1.00E+03	**1.19E-01**
2,4-D (Land; Annual/Perennial)	Residential (Adult)	1.00E-01	1.00E+00	lb a.e./acre	7.17E+01	1.12E-02	8.04E-02	2.50E+01	3.11E+02	1.00E+03	**3.11E-01**
2,4-D (Land; Annual/Perennial)	Residential (Child)	1.00E-01	1.00E+00	lb a.e./acre	1.87E+02	1.12E-02	2.09E-01	2.50E+01	1.19E+02	1.00E+03	**1.19E-01**
2,4-D (Land; Woody Species)	Angler	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Woody Species)	Berry Picker (Adult)	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Woody Species)	Berry Picker (Child)	1.00E-01	2.00E+00	lb a.e./acre	1.87E+02	1.12E-02	4.19E-01	2.50E+01	5.97E+01	1.00E+03	**5.97E-02**
2,4-D (Land; Woody Species)	Hiker/Hunter	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Woody Species)	Native American (Adult)	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Woody Species)	Native American (Child)	1.00E-01	2.00E+00	lb a.e./acre	1.87E+02	1.12E-02	4.19E-01	2.50E+01	5.97E+01	1.00E+03	**5.97E-02**
2,4-D (Land; Woody Species)	Residential (Adult)	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Land; Woody Species)	Residential (Child)	1.00E-01	2.00E+00	lb a.e./acre	1.87E+02	1.12E-02	4.19E-01	2.50E+01	5.97E+01	1.00E+03	**5.97E-02**
2,4-D (Aquatic - Floating/Emerged)	Angler	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	1.00E-01	2.00E+00	lb a.e./acre	1.87E+02	1.12E-02	4.19E-01	2.50E+01	5.97E+01	1.00E+03	**5.97E-02**
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	1.00E-01	2.00E+00	lb a.e./acre	1.87E+02	1.12E-02	4.19E-01	2.50E+01	5.97E+01	1.00E+03	**5.97E-02**
2,4-D (Aquatic - Floating/Emerged)	Residential (Adult)	1.00E-01	2.00E+00	lb a.e./acre	7.17E+01	1.12E-02	1.61E-01	2.50E+01	1.55E+02	1.00E+03	**1.55E-01**
2,4-D (Aquatic - Floating/Emerged)	Residential (Child)	1.00E-01	2.00E+00	lb a.e./acre	1.87E+02	1.12E-02	4.19E-01	2.50E+01	5.97E+01	1.00E+03	**5.97E-02**
2,4-D (Aquatic - Submerged; liquid)	Angler	1.00E-01	5.40E+00	lb a.e./acre (a)	7.17E+01	1.12E-02	4.34E-01	2.50E+01	5.76E+01	1.00E+03	**5.76E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	1.00E-01	5.40E+00	lb a.e./acre (a)	7.17E+01	1.12E-02	4.34E-01	2.50E+01	5.76E+01	1.00E+03	**5.76E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	1.00E-01	5.40E+00	lb a.e./acre (a)	1.87E+02	1.12E-02	1.13E+00	2.50E+01	2.21E+01	1.00E+03	**2.21E-02**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	1.00E-01	5.40E+00	lb a.e./acre (a)	7.17E+01	1.12E-02	4.34E-01	2.50E+01	5.76E+01	1.00E+03	**5.76E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	1.00E-01	5.40E+00	lb a.e./acre (a)	7.17E+01	1.12E-02	4.34E-01	2.50E+01	5.76E+01	1.00E+03	**5.76E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	1.00E-01	5.40E+00	lb a.e./acre (a)	1.87E+02	1.12E-02	1.13E+00	2.50E+01	2.21E+01	1.00E+03	**2.21E-02**
2,4-D (Aquatic - Submerged; liquid)	Residential (Adult)	1.00E-01	5.40E+00	lb a.e./acre (a)	7.17E+01	1.12E-02	4.34E-01	2.50E+01	5.76E+01	1.00E+03	**5.76E-02**
2,4-D (Aquatic - Submerged; liquid)	Residential (Child)	1.00E-01	5.40E+00	lb a.e./acre (a)	1.87E+02	1.12E-02	1.13E+00	2.50E+01	2.21E+01	1.00E+03	**2.21E-02**

a.e. - acid equivalent.
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) - For the purposes of this scenario, it is assumed that the herbicide is mixed for a one-foot pond depth; therefore, the application rates in lb a.e./acre-foot are multiplied by 1 foot to obtain units of lb a.e./acre.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Accidental Exposure (Typical Application Rate) - Re-entry to Posted Area
Pathway: Dermal Contact with Foliage

Herbicide	Public Receptor	Fraction Retained on Foliage (F)	Dermal Absorption Factor (DAF)	Typical Application Rate (AR)	Application Rate Units	Unit Correction Factor (CF) (mg/cm2)/(lb/acre)	Dislodgeable Foliar Residue (DFR) (AR x F x CF) (mg a.e./cm2)	Exposure Factor (EF) (cm2/kg-day)	Dermal Dose (EF x DFR x DAF) (mg a.e./kg-day)	Short-Term Dermal NOAEL (mg/kg-day)	MOE (NOAEL/Dose) (unitless)	Target MOE (TM)	Aggregate Risk Index (ARI) [1/(TM/MOE)]
2,4-D (Land; Annual/Perennial)	Angler	2.50E-01	1.00E-01	1.00E+00	lb a.e./acre	1.12E-02	2.80E-03	2.01E+01	5.64E-03	2.50E+01	4.43E+03	1.00E+03	4.43E+00
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	2.50E-01	1.00E-01	1.00E+00	lb a.e./acre	1.12E-02	2.80E-03	3.46E+01	9.70E-03	2.50E+01	2.58E+03	1.00E+03	2.58E+00
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	2.50E-01	1.00E-01	1.00E+00	lb a.e./acre	1.12E-02	2.80E-03	6.05E+01	1.70E-02	2.50E+01	1.47E+03	1.00E+03	1.47E+00
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	2.50E-01	1.00E-01	1.00E+00	lb a.e./acre	1.12E-02	2.80E-03	2.01E+01	5.64E-03	2.50E+01	4.43E+03	1.00E+03	4.43E+00
2,4-D (Land; Annual/Perennial)	Native American (Adult)	2.50E-01	1.00E-01	1.00E+00	lb a.e./acre	1.12E-02	2.80E-03	4.15E+01	1.16E-02	2.50E+01	2.15E+03	1.00E+03	2.15E+00
2,4-D (Land; Annual/Perennial)	Native American (Child)	2.50E-01	1.00E-01	1.00E+00	lb a.e./acre	1.12E-02	2.80E-03	7.26E+01	2.04E-02	2.50E+01	1.23E+03	1.00E+03	1.23E+00
2,4-D (Land; Annual/Perennial)	Residential (Adult)	1.00E-02	1.00E-01	1.00E+00	lb a.e./acre	1.12E-02	1.12E-04	3.40E+03	3.81E-02	2.50E+01	6.56E+02	1.00E+03	**6.56E-01**
2,4-D (Land; Annual/Perennial)	Residential (Child)	1.00E-02	1.00E-01	1.00E+00	lb a.e./acre	1.12E-02	1.12E-04	5.94E+03	6.66E-02	2.50E+01	3.75E+02	1.00E+03	**3.75E-01**
2,4-D (Land; Woody Species)	Angler	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	2.01E+01	1.13E-02	2.50E+01	2.22E+03	1.00E+03	2.22E+00
2,4-D (Land; Woody Species)	Berry Picker (Adult)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	3.46E+01	1.94E-02	2.50E+01	1.29E+03	1.00E+03	1.29E+00
2,4-D (Land; Woody Species)	Berry Picker (Child)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	6.05E+01	3.39E-02	2.50E+01	7.37E+02	1.00E+03	**7.37E-01**
2,4-D (Land; Woody Species)	Hiker/Hunter	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	2.01E+01	1.13E-02	2.50E+01	2.22E+03	1.00E+03	2.22E+00
2,4-D (Land; Woody Species)	Native American (Adult)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	4.15E+01	2.33E-02	2.50E+01	1.07E+03	1.00E+03	1.07E+00
2,4-D (Land; Woody Species)	Native American (Child)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	7.26E+01	4.07E-02	2.50E+01	6.14E+02	1.00E+03	**6.14E-01**
2,4-D (Land; Woody Species)	Residential (Adult)	1.00E-02	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	2.24E-04	3.40E+03	7.62E-02	2.50E+01	3.28E+02	1.00E+03	**3.28E-01**
2,4-D (Land; Woody Species)	Residential (Child)	1.00E-02	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	2.24E-04	5.94E+03	1.33E-01	2.50E+01	1.88E+02	1.00E+03	**1.88E-01**
2,4-D (Aquatic - Floating/Emerged)	Angler	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	2.01E+01	1.13E-02	2.50E+01	2.22E+03	1.00E+03	2.22E+00
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	3.46E+01	1.94E-02	2.50E+01	1.29E+03	1.00E+03	1.29E+00
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	6.05E+01	3.39E-02	2.50E+01	7.37E+02	1.00E+03	**7.37E-01**
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	2.01E+01	1.13E-02	2.50E+01	2.22E+03	1.00E+03	2.22E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	4.15E+01	2.33E-02	2.50E+01	1.07E+03	1.00E+03	1.07E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	2.50E-01	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	5.61E-03	7.26E+01	4.07E-02	2.50E+01	6.14E+02	1.00E+03	**6.14E-01**
2,4-D (Aquatic - Floating/Emerged)	Residential (Adult)	1.00E-02	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	2.24E-04	3.40E+03	7.62E-02	2.50E+01	3.28E+02	1.00E+03	**3.28E-01**
2,4-D (Aquatic - Floating/Emerged)	Residential (Child)	1.00E-02	1.00E-01	2.00E+00	lb a.e./acre	1.12E-02	2.24E-04	5.94E+03	1.33E-01	2.50E+01	1.88E+02	1.00E+03	**1.88E-01**
2,4-D (Aquatic - Submerged; liquid)	Angler	2.50E-01	1.00E-01	5.40E+00	lb a.e./acre (a)	1.12E-02	1.51E-02	2.01E+01	3.05E-02	2.50E+01	8.21E+02	1.00E+03	**8.21E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	2.50E-01	1.00E-01	5.40E+00	lb a.e./acre (a)	1.12E-02	1.51E-02	3.46E+01	5.24E-02	2.50E+01	4.77E+02	1.00E+03	**4.77E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	2.50E-01	1.00E-01	5.40E+00	lb a.e./acre (a)	1.12E-02	1.51E-02	6.05E+01	9.16E-02	2.50E+01	2.73E+02	1.00E+03	**2.73E-01**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	2.50E-01	1.00E-01	5.40E+00	lb a.e./acre (a)	1.12E-02	1.51E-02	2.01E+01	3.05E-02	2.50E+01	8.21E+02	1.00E+03	**8.21E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	2.50E-01	1.00E-01	5.40E+00	lb a.e./acre (a)	1.12E-02	1.51E-02	4.15E+01	6.28E-02	2.50E+01	3.98E+02	1.00E+03	**3.98E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	2.50E-01	1.00E-01	5.40E+00	lb a.e./acre (a)	1.12E-02	1.51E-02	7.26E+01	1.10E-01	2.50E+01	2.27E+02	1.00E+03	**2.27E-01**
2,4-D (Aquatic - Submerged; liquid)	Residential (Adult)	1.00E-02	1.00E-01	5.40E+00	lb a.e./acre (a)	1.12E-02	6.06E-04	3.40E+03	2.06E-01	2.50E+01	1.22E+02	1.00E+03	**1.22E-01**
2,4-D (Aquatic - Submerged; liquid)	Residential (Child)	1.00E-02	1.00E-01	5.40E+00	lb a.e./acre (a)	1.12E-02	6.06E-04	5.94E+03	3.60E-01	2.50E+01	6.95E+01	1.00E+03	**6.95E-02**

a.e. - acid equivalent.
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) - For the purposes of this scenario, it is assumed that the herbicide is mixed for a one-foot pond depth; therefore, the application rates in lb a.e./acre-foot are multiplied by 1 foot to obtain units of lb a.e./acre.

Calculation: Potential Doses and Margins of Exposure
Scenario: Public Receptors - Accidental Exposure (Typical Application Rate) - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Incidental Ingestion and Dermal Contact with Water While Swimming

Herbicide	Public Receptor	Accident Source	Dermal Skin Permeability Constant (Kp) (cm/hr)	Water Conc (Cw)	Units	Dermal Unit Correction Factor (CF) (L/cm3)	Dermal Contact Exposure Factor (EF) (cm2-hr/kg-day)	Dermal Contact Absorbed Dose (EF x Kp x CW x CF) (mg/kg-day)	Incidental Ingestion Exposure Factor (EF) (L/kg-day)	Incidental Ingestion Absorbed Dose (EF x Cw) (mg/kg-day)	Short-Term Oral NOAEL (a) (mg/kg-day)	Dermal MOE (MOEd) (NOAEL/DOSEd) (unitless)	Oral MOEo (NOAEL/DOSEo) (unitless)	Target MOE (TM)	Aggregate Risk Index (ARI) [1/((TM/MOEd)+(TM/MOEo))]
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Spray	2.93E-05	1.12E-01	mg a.e./L	1.00E-03	5.89E+02	1.94E-06	--	--	2.50E+01	1.29E+07	NC	1.00E+03	1.29E+04
2,4-D (Land; Annual/Perennial)	Native American (Child)	Spray	2.93E-05	1.12E-01	mg a.e./L	1.00E-03	1.14E+03	3.76E-06	--	--	2.50E+01	6.65E+06	NC	1.00E+03	6.65E+03
2,4-D (Land; Annual/Perennial)	Swimmer (Adult)	Spray	2.93E-05	1.12E-01	mg a.e./L	1.00E-03	2.26E+02	7.45E-07	8.93E-04	1.00E-04	2.50E+01	3.36E+07	2.50E+05	1.00E+03	2.48E+02
2,4-D (Land; Annual/Perennial)	Swimmer (Child)	Spray	2.93E-05	1.12E-01	mg a.e./L	1.00E-03	4.40E+02	1.45E-06	8.00E-03	8.97E-04	2.50E+01	1.73E+07	2.79E+04	1.00E+03	2.78E+01
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Helicopter	2.93E-05	1.26E+01	mg a.e./L	1.00E-03	5.89E+02	2.17E-04	--	--	2.50E+01	1.15E+05	NC	1.00E+03	1.15E+02
2,4-D (Land; Annual/Perennial)	Native American (Child)	Helicopter	2.93E-05	1.26E+01	mg a.e./L	1.00E-03	1.14E+03	4.21E-04	--	--	2.50E+01	5.93E+04	NC	1.00E+03	5.93E+01
2,4-D (Land; Annual/Perennial)	Swimmer (Adult)	Helicopter	2.93E-05	1.26E+01	mg a.e./L	1.00E-03	2.26E+02	8.34E-05	8.93E-04	1.12E-02	2.50E+01	3.00E+05	2.23E+03	1.00E+03	2.21E+00
2,4-D (Land; Annual/Perennial)	Swimmer (Child)	Helicopter	2.93E-05	1.26E+01	mg a.e./L	1.00E-03	4.40E+02	1.62E-04	8.00E-03	1.00E-01	2.50E+01	1.54E+05	2.49E+02	1.00E+03	**2.48E-01**
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Truck	2.93E-05	3.59E+00	mg a.e./L	1.00E-03	5.89E+02	6.19E-05	--	--	2.50E+01	4.04E+05	NC	1.00E+03	4.04E+02
2,4-D (Land; Annual/Perennial)	Native American (Child)	Truck	2.93E-05	3.59E+00	mg a.e./L	1.00E-03	1.14E+03	1.20E-04	--	--	2.50E+01	2.08E+05	NC	1.00E+03	2.08E+02
2,4-D (Land; Annual/Perennial)	Swimmer (Adult)	Truck	2.93E-05	3.59E+00	mg a.e./L	1.00E-03	2.26E+02	2.38E-05	8.93E-04	3.20E-03	2.50E+01	1.05E+06	7.80E+03	1.00E+03	7.75E+00
2,4-D (Land; Annual/Perennial)	Swimmer (Child)	Truck	2.93E-05	3.59E+00	mg a.e./L	1.00E-03	4.40E+02	4.63E-05	8.00E-03	2.87E-02	2.50E+01	5.40E+05	8.71E+02	1.00E+03	**8.70E-01**
2,4-D (Land; Woody Species)	Native American (Adult)	Spray	2.93E-05	2.24E-01	mg a.e./L	1.00E-03	5.89E+02	3.87E-06	--	--	2.50E+01	6.46E+06	NC	1.00E+03	6.46E+03
2,4-D (Land; Woody Species)	Native American (Child)	Spray	2.93E-05	2.24E-01	mg a.e./L	1.00E-03	1.14E+03	7.52E-06	--	--	2.50E+01	3.32E+06	NC	1.00E+03	3.32E+03
2,4-D (Land; Woody Species)	Swimmer (Adult)	Spray	2.93E-05	2.24E-01	mg a.e./L	1.00E-03	2.26E+02	1.49E-06	8.93E-04	2.00E-04	2.50E+01	1.68E+07	1.25E+05	1.00E+03	1.24E+02
2,4-D (Land; Woody Species)	Swimmer (Child)	Spray	2.93E-05	2.24E-01	mg a.e./L	1.00E-03	4.40E+02	2.89E-06	8.00E-03	1.79E-03	2.50E+01	8.64E+06	1.39E+04	1.00E+03	1.39E+01
2,4-D (Land; Woody Species)	Native American (Adult)	Helicopter	2.93E-05	2.51E+01	mg a.e./L	1.00E-03	5.89E+02	4.34E-04	--	--	2.50E+01	5.77E+04	NC	1.00E+03	5.77E+01
2,4-D (Land; Woody Species)	Native American (Child)	Helicopter	2.93E-05	2.51E+01	mg a.e./L	1.00E-03	1.14E+03	8.43E-04	--	--	2.50E+01	2.97E+04	NC	1.00E+03	2.97E+01
2,4-D (Land; Woody Species)	Swimmer (Adult)	Helicopter	2.93E-05	2.51E+01	mg a.e./L	1.00E-03	2.26E+02	1.67E-04	8.93E-04	2.24E-02	2.50E+01	1.50E+05	1.11E+03	1.00E+03	1.11E+00
2,4-D (Land; Woody Species)	Swimmer (Child)	Helicopter	2.93E-05	2.51E+01	mg a.e./L	1.00E-03	4.40E+02	3.24E-04	8.00E-03	2.01E-01	2.50E+01	7.71E+04	1.24E+02	1.00E+03	**1.24E-01**
2,4-D (Land; Woody Species)	Native American (Adult)	Truck	2.93E-05	7.17E+00	mg a.e./L	1.00E-03	5.89E+02	1.24E-04	--	--	2.50E+01	2.02E+05	NC	1.00E+03	2.02E+02
2,4-D (Land; Woody Species)	Native American (Child)	Truck	2.93E-05	7.17E+00	mg a.e./L	1.00E-03	1.14E+03	2.41E-04	--	--	2.50E+01	1.04E+05	NC	1.00E+03	1.04E+02
2,4-D (Land; Woody Species)	Swimmer (Adult)	Truck	2.93E-05	7.17E+00	mg a.e./L	1.00E-03	2.26E+02	4.77E-05	8.93E-04	6.41E-03	2.50E+01	5.25E+05	3.90E+03	1.00E+03	3.87E+00
2,4-D (Land; Woody Species)	Swimmer (Child)	Truck	2.93E-05	7.17E+00	mg a.e./L	1.00E-03	4.40E+02	9.26E-05	8.00E-03	5.74E-02	2.50E+01	2.70E+05	4.36E+02	1.00E+03	**4.35E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Spray	2.93E-05	2.24E-01	mg a.e./L	1.00E-03	5.89E+02	3.87E-06	--	--	2.50E+01	6.46E+06	NC	1.00E+03	6.46E+03
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Spray	2.93E-05	2.24E-01	mg a.e./L	1.00E-03	1.14E+03	7.52E-06	--	--	2.50E+01	3.32E+06	NC	1.00E+03	3.32E+03
2,4-D (Aquatic - Floating/Emerged)	Swimmer (Adult)	Spray	2.93E-05	2.24E-01	mg a.e./L	1.00E-03	2.26E+02	1.49E-06	8.93E-04	2.00E-04	2.50E+01	1.68E+07	1.25E+05	1.00E+03	1.24E+02
2,4-D (Aquatic - Floating/Emerged)	Swimmer (Child)	Spray	2.93E-05	2.24E-01	mg a.e./L	1.00E-03	4.40E+02	2.89E-06	8.00E-03	1.79E-03	2.50E+01	8.64E+06	1.39E+04	1.00E+03	1.39E+01
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Helicopter	2.93E-05	2.51E+01	mg a.e./L	1.00E-03	5.89E+02	4.34E-04	--	--	2.50E+01	5.77E+04	NC	1.00E+03	5.77E+01
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Helicopter	2.93E-05	2.51E+01	mg a.e./L	1.00E-03	1.14E+03	8.43E-04	--	--	2.50E+01	2.97E+04	NC	1.00E+03	2.97E+01
2,4-D (Aquatic - Floating/Emerged)	Swimmer (Adult)	Helicopter	2.93E-05	2.51E+01	mg a.e./L	1.00E-03	2.26E+02	1.67E-04	8.93E-04	2.24E-02	2.50E+01	1.50E+05	1.11E+03	1.00E+03	1.11E+00
2,4-D (Aquatic - Floating/Emerged)	Swimmer (Child)	Helicopter	2.93E-05	2.51E+01	mg a.e./L	1.00E-03	4.40E+02	3.24E-04	8.00E-03	2.01E-01	2.50E+01	7.71E+04	1.24E+02	1.00E+03	**1.24E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Truck	2.93E-05	7.17E+00	mg a.e./L	1.00E-03	5.89E+02	1.24E-04	--	--	2.50E+01	2.02E+05	NC	1.00E+03	2.02E+02
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Truck	2.93E-05	7.17E+00	mg a.e./L	1.00E-03	1.14E+03	2.41E-04	--	--	2.50E+01	1.04E+05	NC	1.00E+03	1.04E+02
2,4-D (Aquatic - Floating/Emerged)	Swimmer (Adult)	Truck	2.93E-05	7.17E+00	mg a.e./L	1.00E-03	2.26E+02	4.77E-05	8.93E-04	6.41E-03	2.50E+01	5.25E+05	3.90E+03	1.00E+03	3.87E+00
2,4-D (Aquatic - Floating/Emerged)	Swimmer (Child)	Truck	2.93E-05	7.17E+00	mg a.e./L	1.00E-03	4.40E+02	9.26E-05	8.00E-03	5.74E-02	2.50E+01	2.70E+05	4.36E+02	1.00E+03	**4.35E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Spray	2.93E-05	1.99E+00	mg a.e./L	1.00E-03	5.89E+02	3.43E-05	--	--	2.50E+01	7.29E+05	NC	1.00E+03	7.29E+02
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Spray	2.93E-05	1.99E+00	mg a.e./L	1.00E-03	1.14E+03	6.66E-05	--	--	2.50E+01	3.75E+05	NC	1.00E+03	3.75E+02
2,4-D (Aquatic - Submerged; liquid)	Swimmer (Adult)	Spray	2.93E-05	1.99E+00	mg a.e./L	1.00E-03	2.26E+02	1.32E-05	8.93E-04	1.77E-03	2.50E+01	1.90E+06	1.41E+04	1.00E+03	1.40E+01
2,4-D (Aquatic - Submerged; liquid)	Swimmer (Child)	Spray	2.93E-05	1.99E+00	mg a.e./L	1.00E-03	4.40E+02	2.56E-05	8.00E-03	1.59E-02	2.50E+01	9.75E+05	1.57E+03	1.00E+03	1.57E+00
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Helicopter	2.93E-05	6.78E+01	mg a.e./L	1.00E-03	5.89E+02	1.17E-03	--	--	2.50E+01	2.14E+04	NC	1.00E+03	2.14E+01
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Helicopter	2.93E-05	6.78E+01	mg a.e./L	1.00E-03	1.14E+03	2.28E-03	--	--	2.50E+01	1.10E+04	NC	1.00E+03	1.10E+01
2,4-D (Aquatic - Submerged; liquid)	Swimmer (Adult)	Helicopter	2.93E-05	6.78E+01	mg a.e./L	1.00E-03	2.26E+02	4.50E-04	8.93E-04	6.05E-02	2.50E+01	5.55E+04	4.13E+02	1.00E+03	**4.10E-01**
2,4-D (Aquatic - Submerged; liquid)	Swimmer (Child)	Helicopter	2.93E-05	6.78E+01	mg a.e./L	1.00E-03	4.40E+02	8.75E-04	8.00E-03	5.42E-01	2.50E+01	2.86E+04	4.61E+01	1.00E+03	**4.60E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Truck	2.93E-05	1.94E+01	mg a.e./L	1.00E-03	5.89E+02	3.35E-04	--	--	2.50E+01	7.47E+04	NC	1.00E+03	7.47E+01
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Truck	2.93E-05	1.94E+01	mg a.e./L	1.00E-03	1.14E+03	6.50E-04	--	--	2.50E+01	3.85E+04	NC	1.00E+03	3.85E+01
2,4-D (Aquatic - Submerged; liquid)	Swimmer (Adult)	Truck	2.93E-05	1.94E+01	mg a.e./L	1.00E-03	2.26E+02	1.29E-04	8.93E-04	1.73E-02	2.50E+01	1.94E+05	1.45E+03	1.00E+03	1.43E+00
2,4-D (Aquatic - Submerged; liquid)	Swimmer (Child)	Truck	2.93E-05	1.94E+01	mg a.e./L	1.00E-03	4.40E+02	2.50E-04	8.00E-03	1.55E-01	2.50E+01	1.00E+05	1.61E+02	1.00E+03	**1.61E-01**
2,4-D (Aquatic - Submerged; granular)	Native American (Adult)	Treatment	2.93E-05	2.13E+00	mg a.e./L	1.00E-03	5.89E+02	3.68E-05	--	--	2.50E+01	6.80E+05	NC	1.00E+03	6.80E+02
2,4-D (Aquatic - Submerged; granular)	Native American (Child)	Treatment	2.93E-05	2.13E+00	mg a.e./L	1.00E-03	1.14E+03	7.15E-05	--	--	2.50E+01	3.50E+05	NC	1.00E+03	3.50E+02
2,4-D (Aquatic - Submerged; granular)	Swimmer (Adult)	Treatment	2.93E-05	2.13E+00	mg a.e./L	1.00E-03	2.26E+02	1.41E-05	8.93E-04	1.90E-03	2.50E+01	1.77E+06	1.31E+04	1.00E+03	1.30E+01
2,4-D (Aquatic - Submerged; granular)	Swimmer (Child)	Treatment	2.93E-05	2.13E+00	mg a.e./L	1.00E-03	4.40E+02	2.75E-05	8.00E-03	1.70E-02	2.50E+01	9.09E+05	1.47E+03	1.00E+03	1.46E+00

-- Receptor assumed to be exposed via drinking water; therefore, incidental ingestion is not evaluated.
a.e. - acid equivalent.
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 - Accidental Exposure (Typical Application Rate) - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Drinking Water Ingestion

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
2,4-D (Land; Annual/Perennial)	Angler	Spray	1.12E-01	mg a.e./L	2.52E-02	2.82E-03	2.50E-02	11.28%	8.86E+00
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	Spray	1.12E-01	mg a.e./L	2.52E-02	2.82E-03	2.50E-02	11.28%	8.86E+00
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	Spray	1.12E-01	mg a.e./L	6.67E-02	7.47E-03	2.50E-02	29.89%	3.35E+00
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	Spray	1.12E-01	mg a.e./L	2.52E-02	2.82E-03	2.50E-02	11.28%	8.86E+00
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Spray	1.12E-01	mg a.e./L	1.26E-02	1.41E-03	2.50E-02	5.64%	1.77E+01
2,4-D (Land; Annual/Perennial)	Native American (Child)	Spray	1.12E-01	mg a.e./L	3.33E-02	3.74E-03	2.50E-02	14.95%	6.69E+00
2,4-D (Land; Annual/Perennial)	Angler	Helicopter	1.26E+01	mg a.e./L	2.52E-02	3.16E-01	2.50E-02	1263.43%	**7.91E-02**
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	Helicopter	1.26E+01	mg a.e./L	2.52E-02	3.16E-01	2.50E-02	1263.43%	**7.91E-02**
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	Helicopter	1.26E+01	mg a.e./L	6.67E-02	8.37E-01	2.50E-02	3348.08%	**2.99E-02**
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	Helicopter	1.26E+01	mg a.e./L	2.52E-02	3.16E-01	2.50E-02	1263.43%	**7.91E-02**
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Helicopter	1.26E+01	mg a.e./L	1.26E-02	1.58E-01	2.50E-02	631.71%	**1.58E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	Helicopter	1.26E+01	mg a.e./L	3.33E-02	4.19E-01	2.50E-02	1674.04%	**5.97E-02**
2,4-D (Land; Annual/Perennial)	Angler	Truck	3.59E+00	mg a.e./L	2.52E-02	9.02E-02	2.50E-02	360.98%	**2.77E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	Truck	3.59E+00	mg a.e./L	2.52E-02	9.02E-02	2.50E-02	360.98%	**2.77E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	Truck	3.59E+00	mg a.e./L	6.67E-02	2.39E-01	2.50E-02	956.59%	**1.05E-01**
2,4-D (Land; Annual/Perennial)	Hiker/Hunter	Truck	3.59E+00	mg a.e./L	2.52E-02	9.02E-02	2.50E-02	360.98%	**2.77E-01**
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Truck	3.59E+00	mg a.e./L	1.26E-02	4.51E-02	2.50E-02	180.49%	**5.54E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	Truck	3.59E+00	mg a.e./L	3.33E-02	1.20E-01	2.50E-02	478.30%	**2.09E-01**
2,4-D (Land; Woody Species)	Angler	Spray	2.24E-01	mg a.e./L	2.52E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Land; Woody Species)	Berry Picker (Adult)	Spray	2.24E-01	mg a.e./L	2.52E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Land; Woody Species)	Berry Picker (Child)	Spray	2.24E-01	mg a.e./L	6.67E-02	1.49E-02	2.50E-02	59.79%	1.67E+00
2,4-D (Land; Woody Species)	Hiker/Hunter	Spray	2.24E-01	mg a.e./L	2.52E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Land; Woody Species)	Native American (Adult)	Spray	2.24E-01	mg a.e./L	1.26E-02	2.82E-03	2.50E-02	11.28%	8.86E+00
2,4-D (Land; Woody Species)	Native American (Child)	Spray	2.24E-01	mg a.e./L	3.33E-02	7.47E-03	2.50E-02	29.89%	3.35E+00
2,4-D (Land; Woody Species)	Angler	Helicopter	2.51E+01	mg a.e./L	2.52E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Land; Woody Species)	Berry Picker (Adult)	Helicopter	2.51E+01	mg a.e./L	2.52E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Land; Woody Species)	Berry Picker (Child)	Helicopter	2.51E+01	mg a.e./L	6.67E-02	1.67E+00	2.50E-02	6696.16%	**1.49E-02**
2,4-D (Land; Woody Species)	Hiker/Hunter	Helicopter	2.51E+01	mg a.e./L	2.52E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Land; Woody Species)	Native American (Adult)	Helicopter	2.51E+01	mg a.e./L	1.26E-02	3.16E-01	2.50E-02	1263.43%	**7.91E-02**
2,4-D (Land; Woody Species)	Native American (Child)	Helicopter	2.51E+01	mg a.e./L	3.33E-02	8.37E-01	2.50E-02	3348.08%	**2.99E-02**
2,4-D (Land; Woody Species)	Angler	Truck	7.17E+00	mg a.e./L	2.52E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Land; Woody Species)	Berry Picker (Adult)	Truck	7.17E+00	mg a.e./L	2.52E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Land; Woody Species)	Berry Picker (Child)	Truck	7.17E+00	mg a.e./L	6.67E-02	4.78E-01	2.50E-02	1913.19%	**5.23E-02**
2,4-D (Land; Woody Species)	Hiker/Hunter	Truck	7.17E+00	mg a.e./L	2.52E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Land; Woody Species)	Native American (Adult)	Truck	7.17E+00	mg a.e./L	1.26E-02	9.02E-02	2.50E-02	360.98%	**2.77E-01**
2,4-D (Land; Woody Species)	Native American (Child)	Truck	7.17E+00	mg a.e./L	3.33E-02	2.39E-01	2.50E-02	956.59%	**1.05E-01**

Calculation: Potential Doses, Margins of Exposure, and Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure (Typical Application Rate) - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Drinking Water Ingestion

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	Exposure Factor (EF) (L/kg-day)	Absorbed Dose (EF x Cw) (mg/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
2,4-D (Aquatic - Floating/Emerged)	Angler	Spray	2.24E-01	mg a.e./L	2.52E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	Spray	2.24E-01	mg a.e./L	2.52E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	Spray	2.24E-01	mg a.e./L	6.67E-02	1.49E-02	2.50E-02	59.79%	1.67E+00
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	Spray	2.24E-01	mg a.e./L	2.52E-02	5.64E-03	2.50E-02	22.56%	4.43E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Spray	2.24E-01	mg a.e./L	1.26E-02	2.82E-03	2.50E-02	11.28%	8.86E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Spray	2.24E-01	mg a.e./L	3.33E-02	7.47E-03	2.50E-02	29.89%	3.35E+00
2,4-D (Aquatic - Floating/Emerged)	Angler	Helicopter	2.51E+01	mg a.e./L	2.52E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	Helicopter	2.51E+01	mg a.e./L	2.52E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	Helicopter	2.51E+01	mg a.e./L	6.67E-02	1.67E+00	2.50E-02	6696.16%	**1.49E-02**
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	Helicopter	2.51E+01	mg a.e./L	2.52E-02	6.32E-01	2.50E-02	2526.85%	**3.96E-02**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Helicopter	2.51E+01	mg a.e./L	1.26E-02	3.16E-01	2.50E-02	1263.43%	**7.91E-02**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Helicopter	2.51E+01	mg a.e./L	3.33E-02	8.37E-01	2.50E-02	3348.08%	**2.99E-02**
2,4-D (Aquatic - Floating/Emerged)	Angler	Truck	7.17E+00	mg a.e./L	2.52E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	Truck	7.17E+00	mg a.e./L	2.52E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	Truck	7.17E+00	mg a.e./L	6.67E-02	4.78E-01	2.50E-02	1913.19%	**5.23E-02**
2,4-D (Aquatic - Floating/Emerged)	Hiker/Hunter	Truck	7.17E+00	mg a.e./L	2.52E-02	1.80E-01	2.50E-02	721.96%	**1.39E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Truck	7.17E+00	mg a.e./L	1.26E-02	9.02E-02	2.50E-02	360.98%	**2.77E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Truck	7.17E+00	mg a.e./L	3.33E-02	2.39E-01	2.50E-02	956.59%	**1.05E-01**
2,4-D (Aquatic - Submerged; liquid)	Angler	Spray	1.99E+00	mg a.e./L	2.52E-02	5.00E-02	2.50E-02	199.80%	**5.00E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	Spray	1.99E+00	mg a.e./L	2.52E-02	5.00E-02	2.50E-02	199.80%	**5.00E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	Spray	1.99E+00	mg a.e./L	6.67E-02	1.32E-01	2.50E-02	529.47%	**1.89E-01**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	Spray	1.99E+00	mg a.e./L	2.52E-02	5.00E-02	2.50E-02	199.80%	**5.00E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Spray	1.99E+00	mg a.e./L	1.26E-02	2.50E-02	2.50E-02	99.90%	1.00E+00
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Spray	1.99E+00	mg a.e./L	3.33E-02	6.62E-02	2.50E-02	264.74%	**3.78E-01**
2,4-D (Aquatic - Submerged; liquid)	Angler	Helicopter	6.78E+01	mg a.e./L	2.52E-02	1.71E+00	2.50E-02	6822.50%	**1.47E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	Helicopter	6.78E+01	mg a.e./L	2.52E-02	1.71E+00	2.50E-02	6822.50%	**1.47E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	Helicopter	6.78E+01	mg a.e./L	6.67E-02	4.52E+00	2.50E-02	18079.63%	**5.53E-03**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	Helicopter	6.78E+01	mg a.e./L	2.52E-02	1.71E+00	2.50E-02	6822.50%	**1.47E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Helicopter	6.78E+01	mg a.e./L	1.26E-02	8.53E-01	2.50E-02	3411.25%	**2.93E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Helicopter	6.78E+01	mg a.e./L	3.33E-02	2.26E+00	2.50E-02	9039.82%	**1.11E-02**
2,4-D (Aquatic - Submerged; liquid)	Angler	Truck	1.94E+01	mg a.e./L	2.52E-02	4.87E-01	2.50E-02	1949.29%	**5.13E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	Truck	1.94E+01	mg a.e./L	2.52E-02	4.87E-01	2.50E-02	1949.29%	**5.13E-02**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	Truck	1.94E+01	mg a.e./L	6.67E-02	1.29E+00	2.50E-02	5165.61%	**1.94E-02**
2,4-D (Aquatic - Submerged; liquid)	Hiker/Hunter	Truck	1.94E+01	mg a.e./L	2.52E-02	4.87E-01	2.50E-02	1949.29%	**5.13E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Truck	1.94E+01	mg a.e./L	1.26E-02	2.44E-01	2.50E-02	974.64%	**1.03E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Truck	1.94E+01	mg a.e./L	3.33E-02	6.46E-01	2.50E-02	2582.80%	**3.87E-02**
2,4-D (Aquatic - Submerged; granular)	Angler	Treatment	2.13E+00	mg a.e./L	2.52E-02	5.36E-02	2.50E-02	214.33%	**4.67E-01**
2,4-D (Aquatic - Submerged; granular)	Berry Picker (Adult)	Treatment	2.13E+00	mg a.e./L	2.52E-02	5.36E-02	2.50E-02	214.33%	**4.67E-01**
2,4-D (Aquatic - Submerged; granular)	Berry Picker (Child)	Treatment	2.13E+00	mg a.e./L	6.67E-02	1.42E-01	2.50E-02	567.98%	**1.76E-01**
2,4-D (Aquatic - Submerged; granular)	Hiker/Hunter	Treatment	2.13E+00	mg a.e./L	2.52E-02	5.36E-02	2.50E-02	214.33%	**4.67E-01**
2,4-D (Aquatic - Submerged; granular)	Native American (Adult)	Treatment	2.13E+00	mg a.e./L	1.26E-02	2.68E-02	2.50E-02	107.17%	**9.33E-01**
2,4-D (Aquatic - Submerged; granular)	Native American (Child)	Treatment	2.13E+00	mg a.e./L	3.33E-02	7.10E-02	2.50E-02	283.99%	**3.52E-01**

a.e. - acid equivalent.
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 Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure (Typical Application Rate) - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Ingestion of Fish

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	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/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
2,4-D (Land; Annual/Perennial)	Angler	Spray	1.12E-01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	8.60E-05	2.50E-02	0.34%	2.91E+02
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Spray	1.12E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.25E-03	2.50E-02	4.99%	2.00E+01
2,4-D (Land; Annual/Perennial)	Native American (Child)	Spray	1.12E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.25E-03	2.50E-02	4.99%	2.00E+01
2,4-D (Land; Annual/Perennial)	Angler	Helicopter	1.26E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	9.63E-03	2.50E-02	38.53%	2.60E+00
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Helicopter	1.26E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.40E-01	2.50E-02	559.07%	**1.79E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	Helicopter	1.26E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	1.40E-01	2.50E-02	559.13%	**1.79E-01**
2,4-D (Land; Annual/Perennial)	Angler	Truck	3.59E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	2.75E-03	2.50E-02	11.01%	9.08E+00
2,4-D (Land; Annual/Perennial)	Native American (Adult)	Truck	3.59E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	3.99E-02	2.50E-02	159.73%	**6.26E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	Truck	3.59E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	3.99E-02	2.50E-02	159.75%	**6.26E-01**
2,4-D (Land; Woody Species)	Angler	Spray	2.24E-01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.72E-04	2.50E-02	0.69%	1.45E+02
2,4-D (Land; Woody Species)	Native American (Adult)	Spray	2.24E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.50E-03	2.50E-02	9.98%	1.00E+01
2,4-D (Land; Woody Species)	Native American (Child)	Spray	2.24E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.50E-03	2.50E-02	9.98%	1.00E+01
2,4-D (Land; Woody Species)	Angler	Helicopter	2.51E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.93E-02	2.50E-02	77.07%	1.30E+00
2,4-D (Land; Woody Species)	Native American (Adult)	Helicopter	2.51E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.80E-01	2.50E-02	1118.13%	**8.94E-02**
2,4-D (Land; Woody Species)	Native American (Child)	Helicopter	2.51E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.80E-01	2.50E-02	1118.26%	**8.94E-02**
2,4-D (Land; Woody Species)	Angler	Truck	7.17E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	5.50E-03	2.50E-02	22.02%	4.54E+00
2,4-D (Land; Woody Species)	Native American (Adult)	Truck	7.17E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	7.99E-02	2.50E-02	319.47%	**3.13E-01**
2,4-D (Land; Woody Species)	Native American (Child)	Truck	7.17E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	7.99E-02	2.50E-02	319.50%	**3.13E-01**
2,4-D (Aquatic - Floating/Emerged)	Angler	Spray	2.24E-01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.72E-04	2.50E-02	0.69%	1.45E+02
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Spray	2.24E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.50E-03	2.50E-02	9.98%	1.00E+01
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Spray	2.24E-01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.50E-03	2.50E-02	9.98%	1.00E+01
2,4-D (Aquatic - Floating/Emerged)	Angler	Helicopter	2.51E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.93E-02	2.50E-02	77.07%	1.30E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Helicopter	2.51E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.80E-01	2.50E-02	1118.13%	**8.94E-02**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Helicopter	2.51E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.80E-01	2.50E-02	1118.26%	**8.94E-02**
2,4-D (Aquatic - Floating/Emerged)	Angler	Truck	7.17E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	5.50E-03	2.50E-02	22.02%	4.54E+00
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	Truck	7.17E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	7.99E-02	2.50E-02	319.47%	**3.13E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	Truck	7.17E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	7.99E-02	2.50E-02	319.50%	**3.13E-01**

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure (Typical Application Rate) - Spill and Direct Spray of Herbicide to Waterbody
Pathway: Ingestion of Fish

Herbicide	Public Receptor	Accident Source	Water Conc. (Cw)	Units	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/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
2,4-D (Aquatic - Submerged; liquid)	Angler	Spray	1.99E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.52E-03	2.50E-02	6.09%	1.64E+01
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Spray	1.99E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.21E-02	2.50E-02	88.41%	1.13E+00
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Spray	1.99E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.21E-02	2.50E-02	88.42%	1.13E+00
2,4-D (Aquatic - Submerged; liquid)	Angler	Helicopter	6.78E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	5.20E-02	2.50E-02	208.09%	**4.81E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Helicopter	6.78E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	7.55E-01	2.50E-02	3018.96%	**3.31E-02**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Helicopter	6.78E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	7.55E-01	2.50E-02	3019.30%	**3.31E-02**
2,4-D (Aquatic - Submerged; liquid)	Angler	Truck	1.94E+01	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.49E-02	2.50E-02	59.45%	1.68E+00
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	Truck	1.94E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.16E-01	2.50E-02	862.56%	**1.16E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	Truck	1.94E+01	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.16E-01	2.50E-02	862.66%	**1.16E-01**
2,4-D (Aquatic - Submerged; granular)	Angler	Treatment	2.13E+00	mg a.e./L	1.00E+00	1.00E-06	7.67E+02	1.63E-03	2.50E-02	6.54%	1.53E+01
2,4-D (Aquatic - Submerged; granular)	Native American (Adult)	Treatment	2.13E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.37E-02	2.50E-02	94.84%	1.05E+00
2,4-D (Aquatic - Submerged; granular)	Native American (Child)	Treatment	2.13E+00	mg a.e./L	1.00E+00	1.00E-06	1.11E+04	2.37E-02	2.50E-02	94.85%	1.05E+00

a.e. - acid equivalent.
a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose.

Calculation: Potential Doses and Population Adjusted Doses
Scenario: Public Receptors - Accidental Exposure (Typical Application Rate) - Re-entry to Posted Area
Pathway: Ingestion of Berries

Herbicide	Public Receptor	Fraction Retained on Berry (F)	Typical Application Rate (AR)	Application Rate Units	Unit Correction Factor (CF) (mg/cm2)/(lb/acre)	Exposure Factor (EF) (cm2/kg-day)	Absorbed Dose (AR x F x CF x EF) (mg/kg-day)	Acute PAD (mg/kg-day)	%PAD [(Dose/PAD) x 100%] (percent)	Aggregate Risk Index (ARI) (1/%PAD as ratio)
2,4-D (Land; Annual/Perennial)	Berry Picker (Adult)	1.00E+00	1.00E+00	lb a.e./acre	1.12E-02	4.03E+00	4.51E-02	2.50E-02	180.55%	**5.54E-01**
2,4-D (Land; Annual/Perennial)	Berry Picker (Child)	1.00E+00	1.00E+00	lb a.e./acre	1.12E-02	4.00E+00	4.49E-02	2.50E-02	179.42%	**5.57E-01**
2,4-D (Land; Annual/Perennial)	Native American (Adult)	1.00E+00	1.00E+00	lb a.e./acre	1.12E-02	4.03E+00	4.51E-02	2.50E-02	180.55%	**5.54E-01**
2,4-D (Land; Annual/Perennial)	Native American (Child)	1.00E+00	1.00E+00	lb a.e./acre	1.12E-02	4.00E+00	4.49E-02	2.50E-02	179.42%	**5.57E-01**
2,4-D (Land; Woody Species)	Berry Picker (Adult)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.03E+00	9.03E-02	2.50E-02	361.10%	**2.77E-01**
2,4-D (Land; Woody Species)	Berry Picker (Child)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.00E+00	8.97E-02	2.50E-02	358.84%	**2.79E-01**
2,4-D (Land; Woody Species)	Native American (Adult)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.03E+00	9.03E-02	2.50E-02	361.10%	**2.77E-01**
2,4-D (Land; Woody Species)	Native American (Child)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.00E+00	8.97E-02	2.50E-02	358.84%	**2.79E-01**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Adult)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.03E+00	9.03E-02	2.50E-02	361.10%	**2.77E-01**
2,4-D (Aquatic - Floating/Emerged)	Berry Picker (Child)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.00E+00	8.97E-02	2.50E-02	358.84%	**2.79E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Adult)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.03E+00	9.03E-02	2.50E-02	361.10%	**2.77E-01**
2,4-D (Aquatic - Floating/Emerged)	Native American (Child)	1.00E+00	2.00E+00	lb a.e./acre	1.12E-02	4.00E+00	8.97E-02	2.50E-02	358.84%	**2.79E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Adult)	1.00E+00	5.40E+00	lb a.e./acre (a)	1.12E-02	4.03E+00	2.44E-01	2.50E-02	974.97%	**1.03E-01**
2,4-D (Aquatic - Submerged; liquid)	Berry Picker (Child)	1.00E+00	5.40E+00	lb a.e./acre (a)	1.12E-02	4.00E+00	2.42E-01	2.50E-02	968.87%	**1.03E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Adult)	1.00E+00	5.40E+00	lb a.e./acre (a)	1.12E-02	4.03E+00	2.44E-01	2.50E-02	974.97%	**1.03E-01**
2,4-D (Aquatic - Submerged; liquid)	Native American (Child)	1.00E+00	5.40E+00	lb a.e./acre (a)	1.12E-02	4.00E+00	2.42E-01	2.50E-02	968.87%	**1.03E-01**

a.e. - acid equivalent.
a.i. - active ingredient.
NA - Not Available.
NC - Not Calculated (No dose-response value).
PAD - Population Adjusted Dose.
(a) - For the purposes of this scenario, it is assumed that the herbicide is mixed for a one-foot pond depth; therefore, the application rates in lb a.e./acre-foot are multiplied by 1 foot to obtain units of lb a.e./acre.