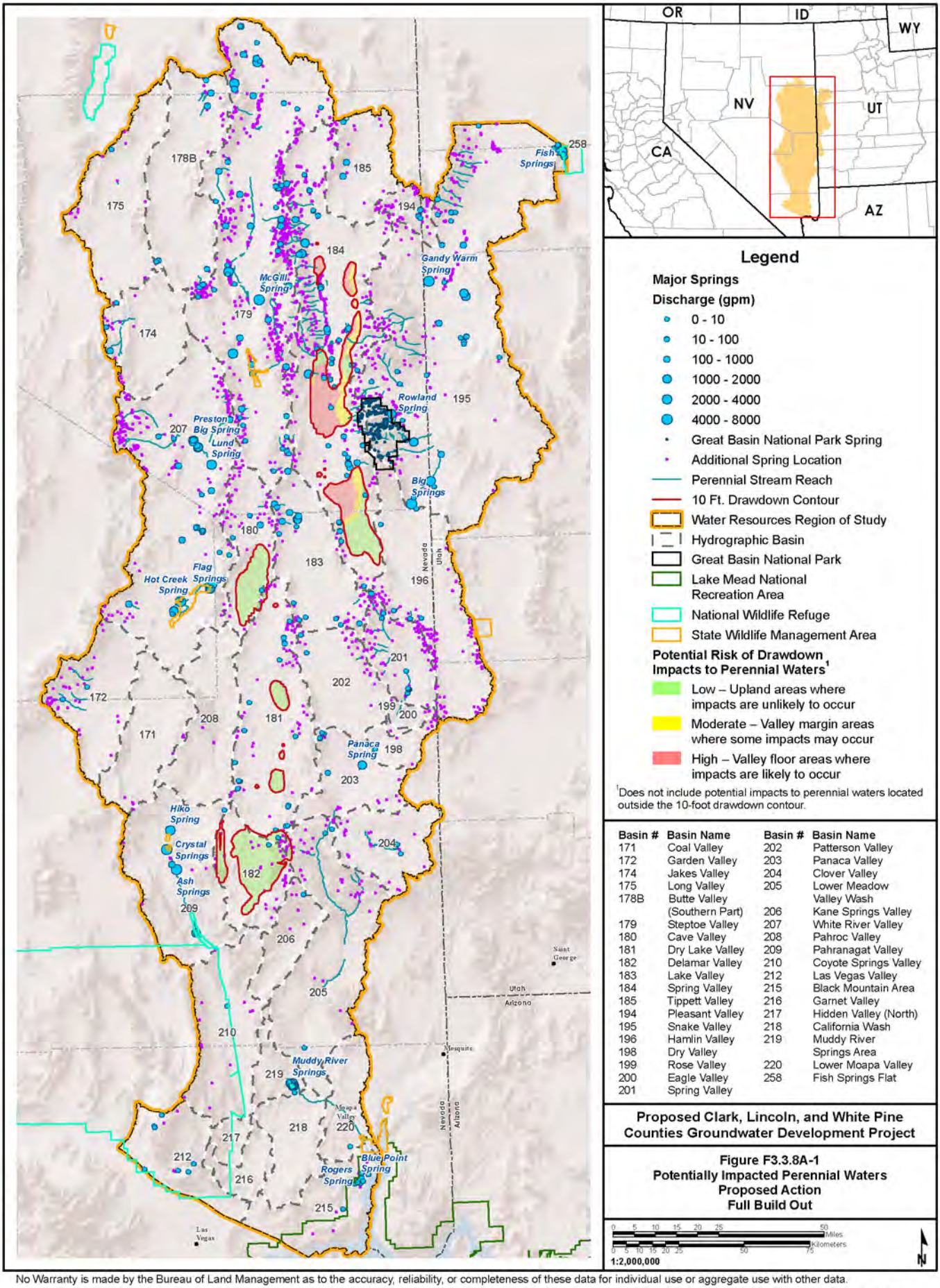
F3.3.8

Areas of Potential Risk within Predicted Drawdown Areas



Basin #	Basin Name	Basin #	Basin Name
171	Coal Valley	202	Patterson Valley
172	Garden Valley	203	Panaca Valley
174	Jakes Valley	204	Clover Valley
175	Long Valley	205	Lower Meadow Valley Wash
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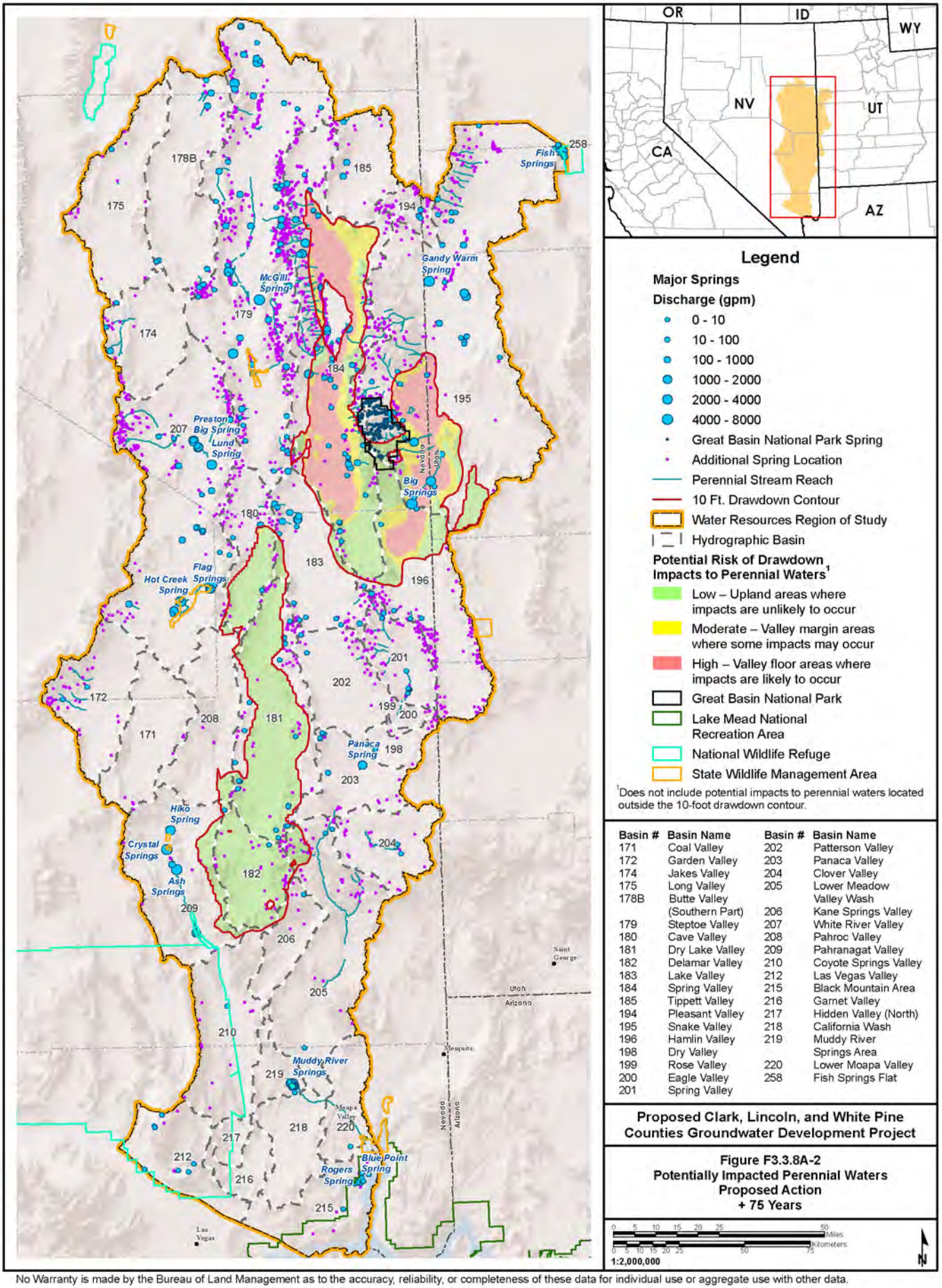
179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-1
Potentially Impacted Perennial Waters
Proposed Action
Full Build Out

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.



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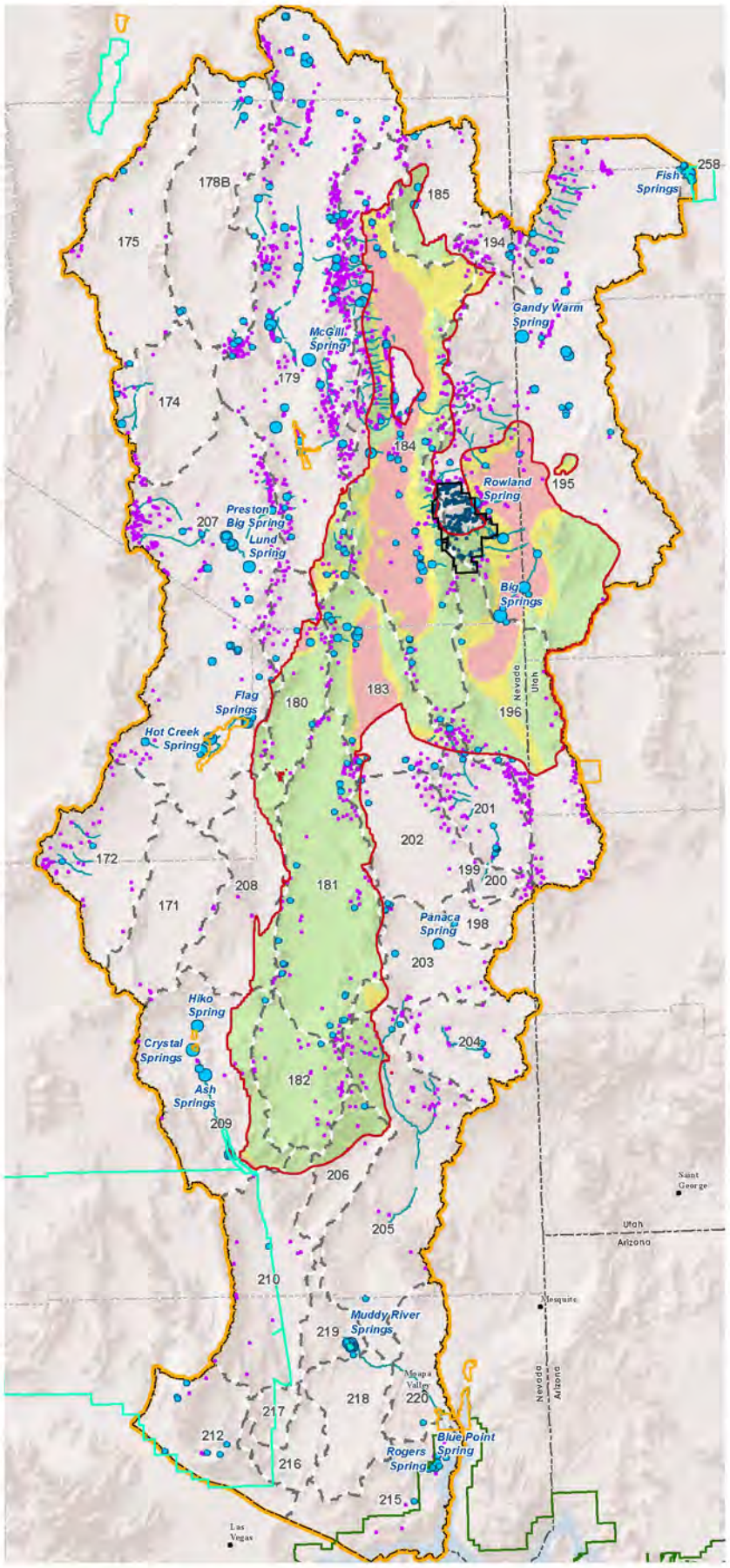

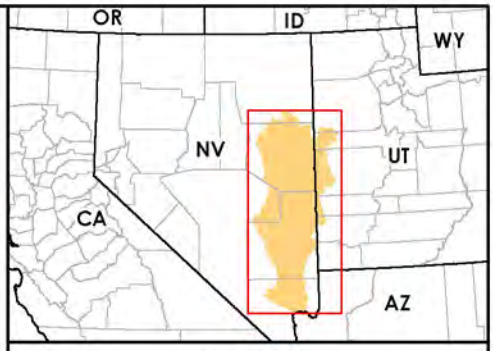

Legend

Major Springs

Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
- Moderate – Valley margin areas where some impacts may occur
- High – Valley floor areas where impacts are likely to occur

[1]Does not include potential impacts to perennial waters located outside the 10-foot drawdown contour.

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181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-3
Potentially Impacted Perennial Waters
Proposed Action
+ 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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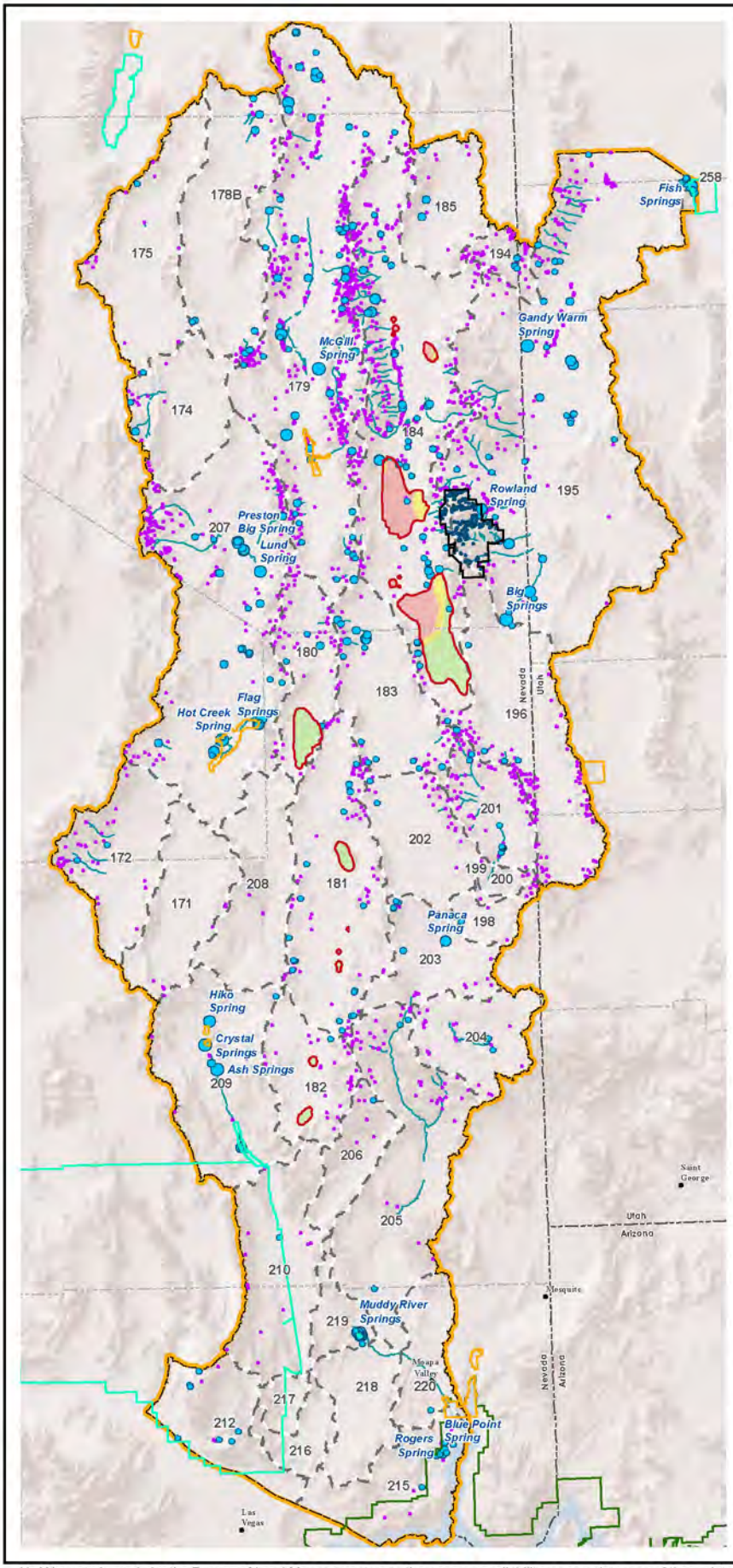

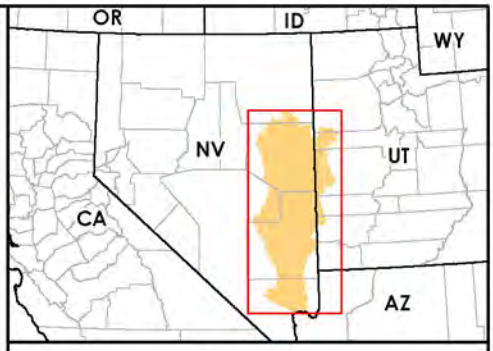

Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
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195	Snake Valley	218	California Wash
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198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-4
Potentially Impacted Perennial Waters
Alt. A - (Distributed Pumping)
Full Build Out

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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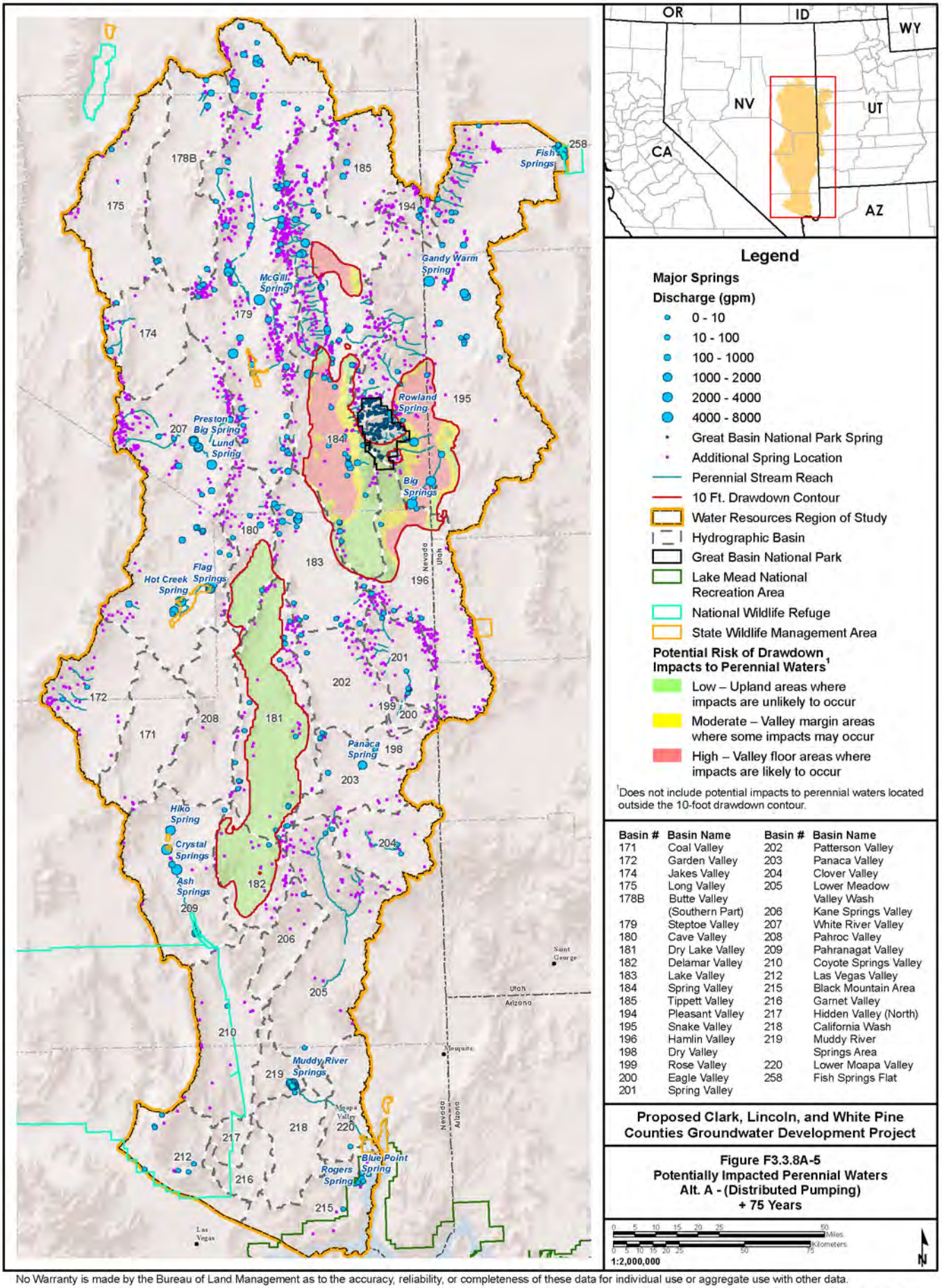

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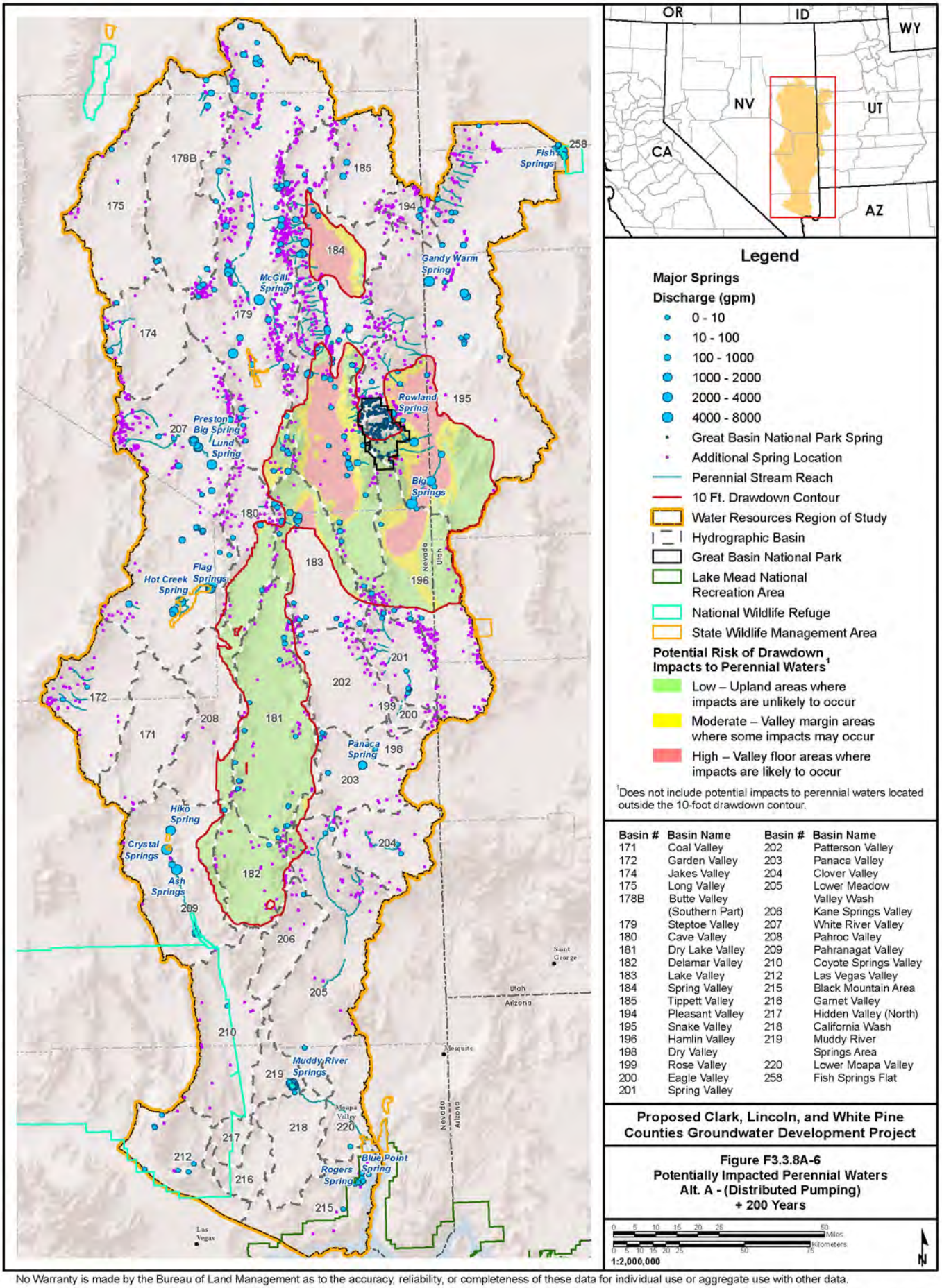
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-5
Potentially Impacted Perennial Waters
Alt. A - (Distributed Pumping)
+ 75 Years

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.



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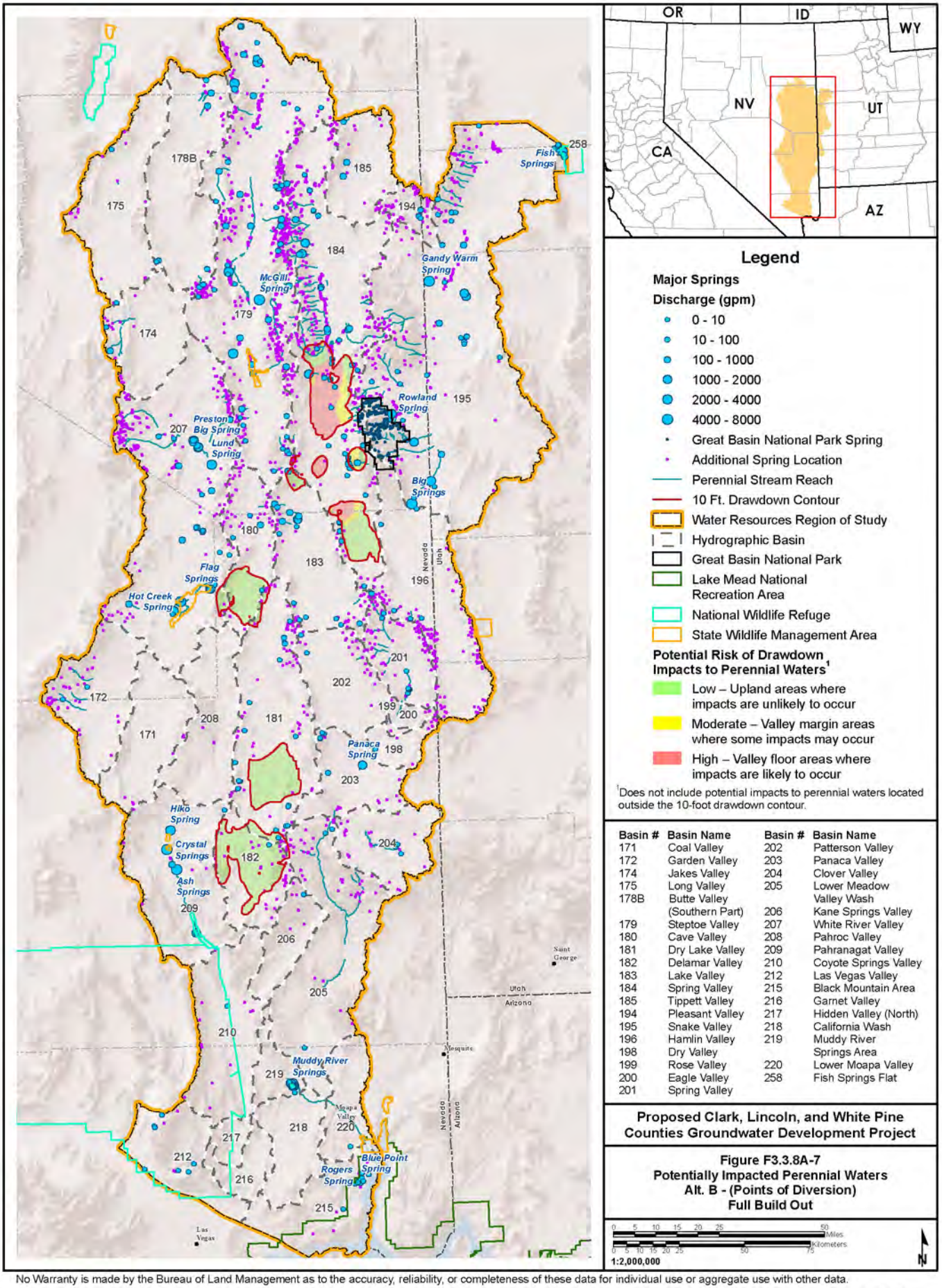

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196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-7
Potentially Impacted Perennial Waters
Alt. B - (Points of Diversion)
Full Build Out

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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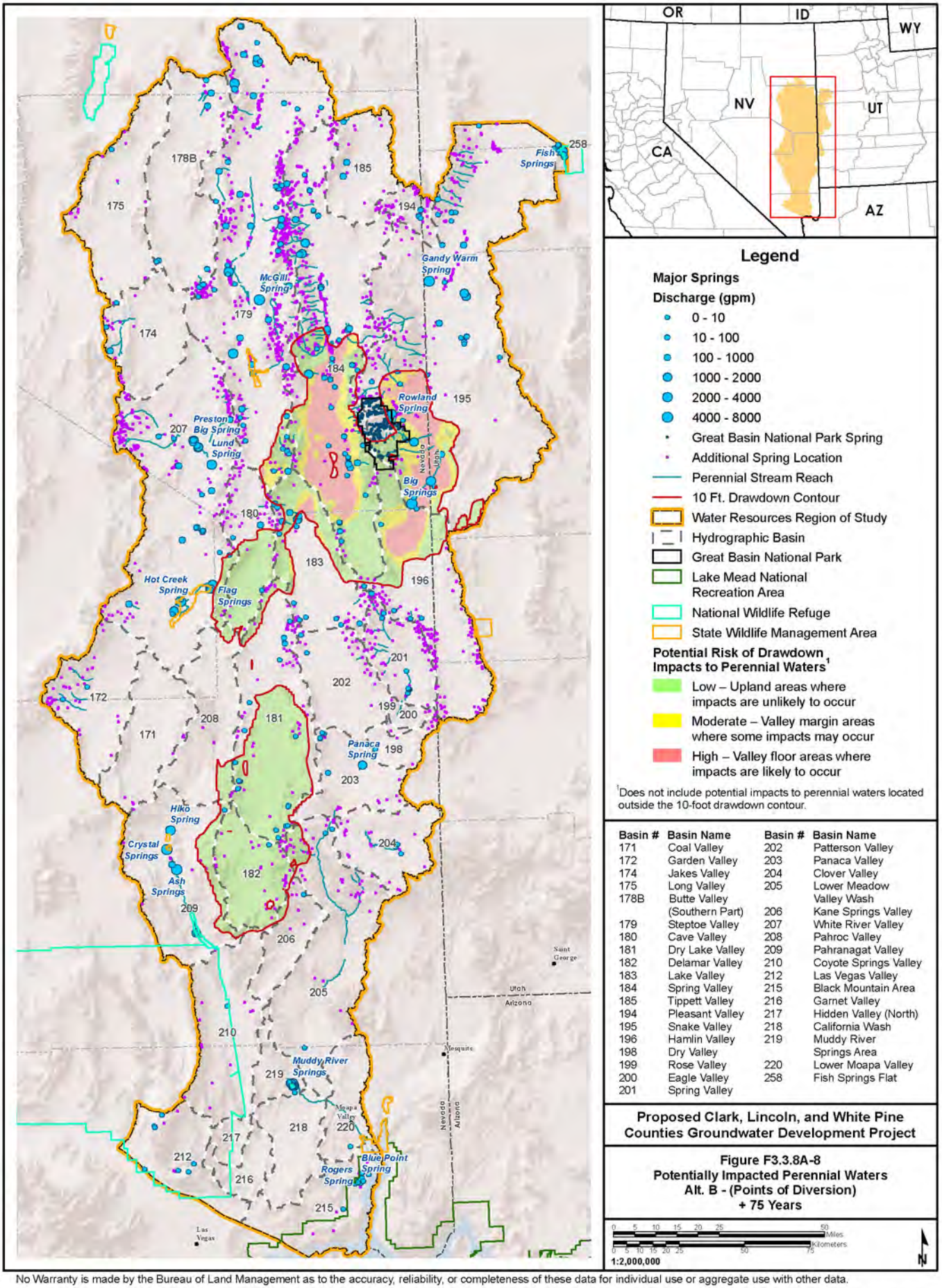

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200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-8
Potentially Impacted Perennial Waters
Alt. B - (Points of Diversion)
+ 75 Years

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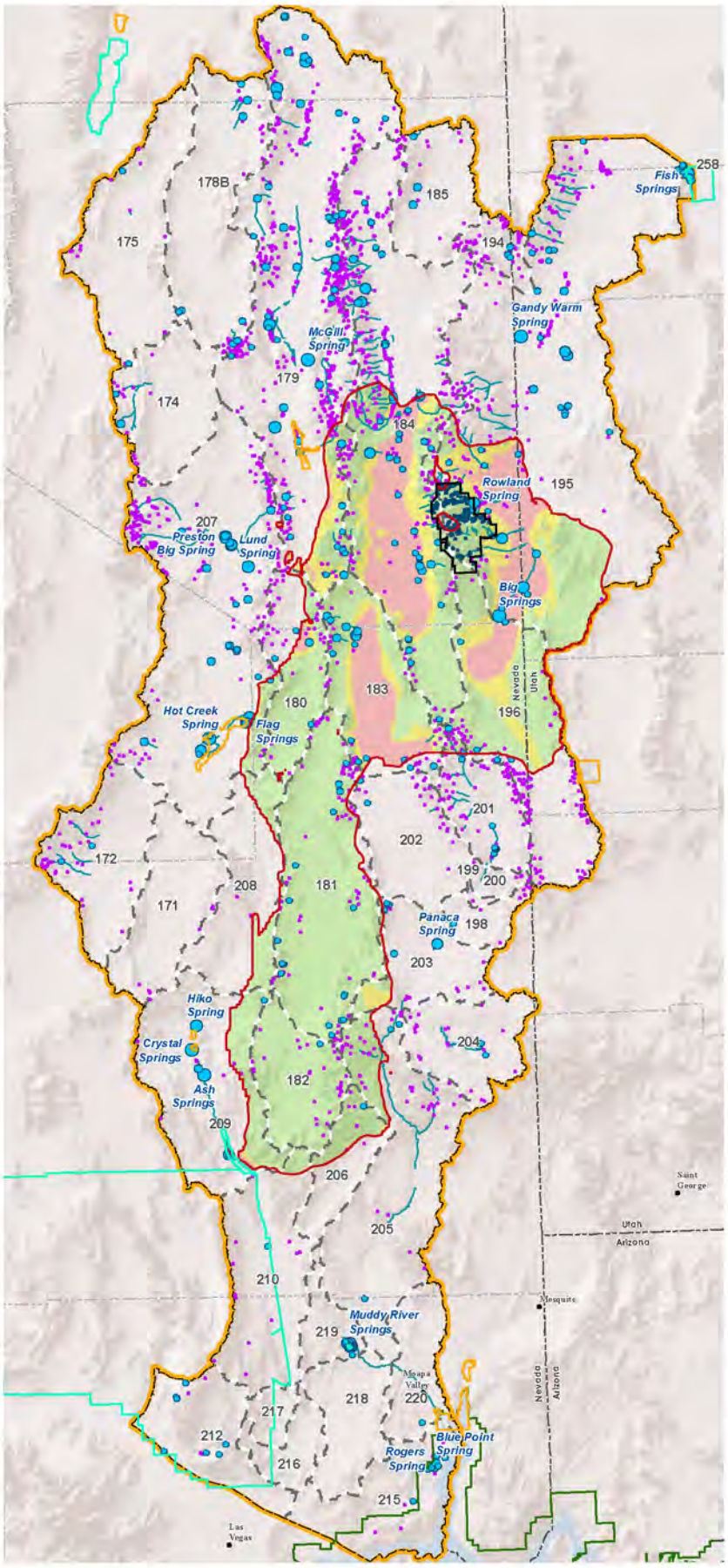

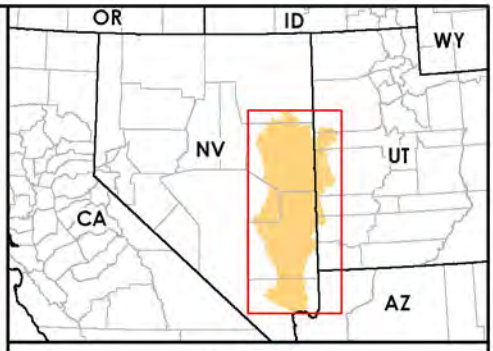

Legend

Major Springs

Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
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195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-9
Potentially Impacted Perennial Waters
Alt. B - (Points of Diversion)
+ 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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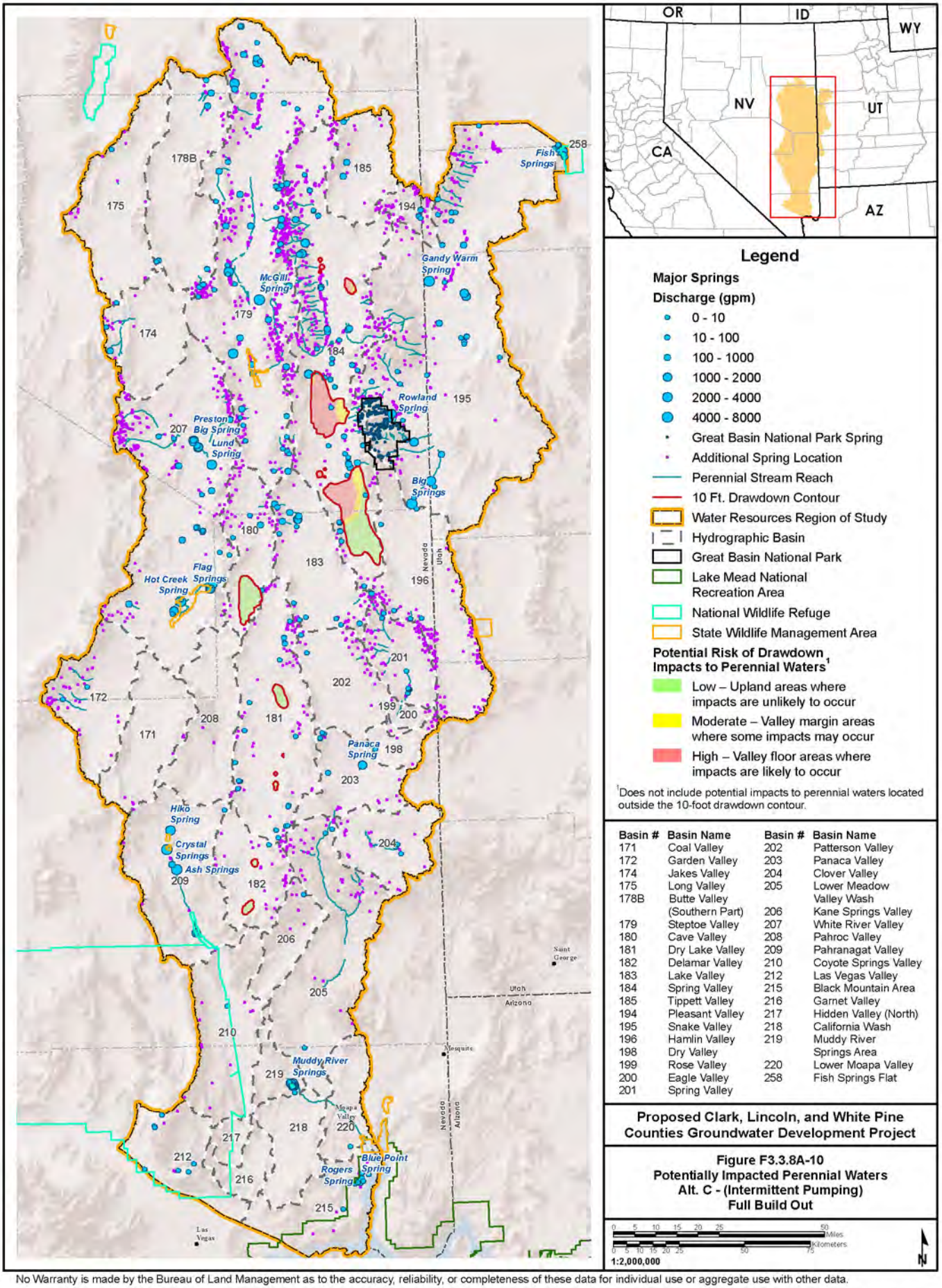

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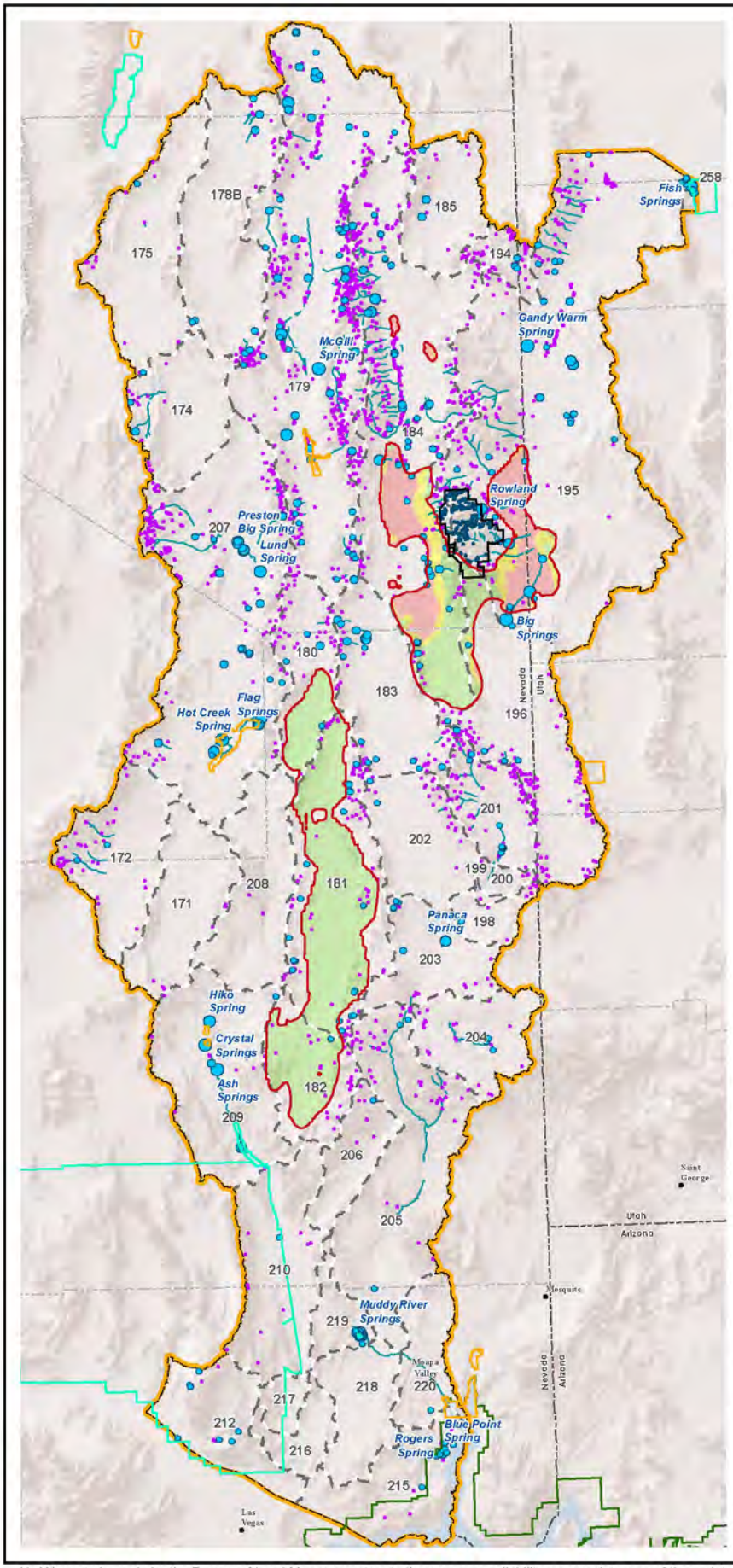

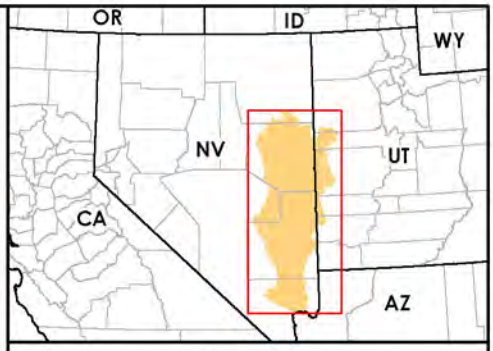

Legend

Major Springs

Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
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- Great Basin National Park
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- National Wildlife Refuge
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198	Dry Valley	220	Lower Moapa Valley
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201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-11
Potentially Impacted Perennial Waters
Alt. C - (Intermittent Pumping)
+ 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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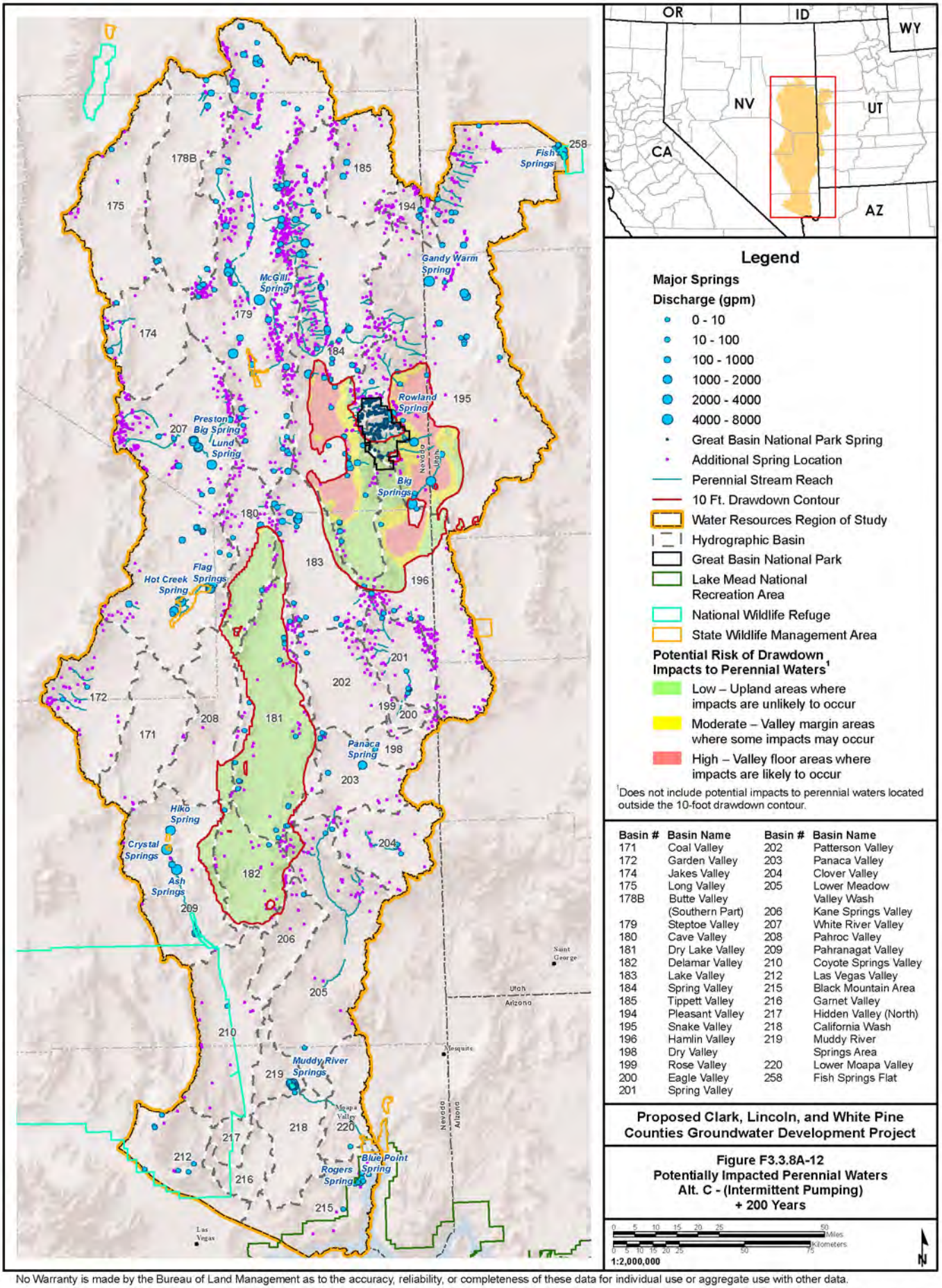

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200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-12
Potentially Impacted Perennial Waters
Alt. C - (Intermittent Pumping)
+ 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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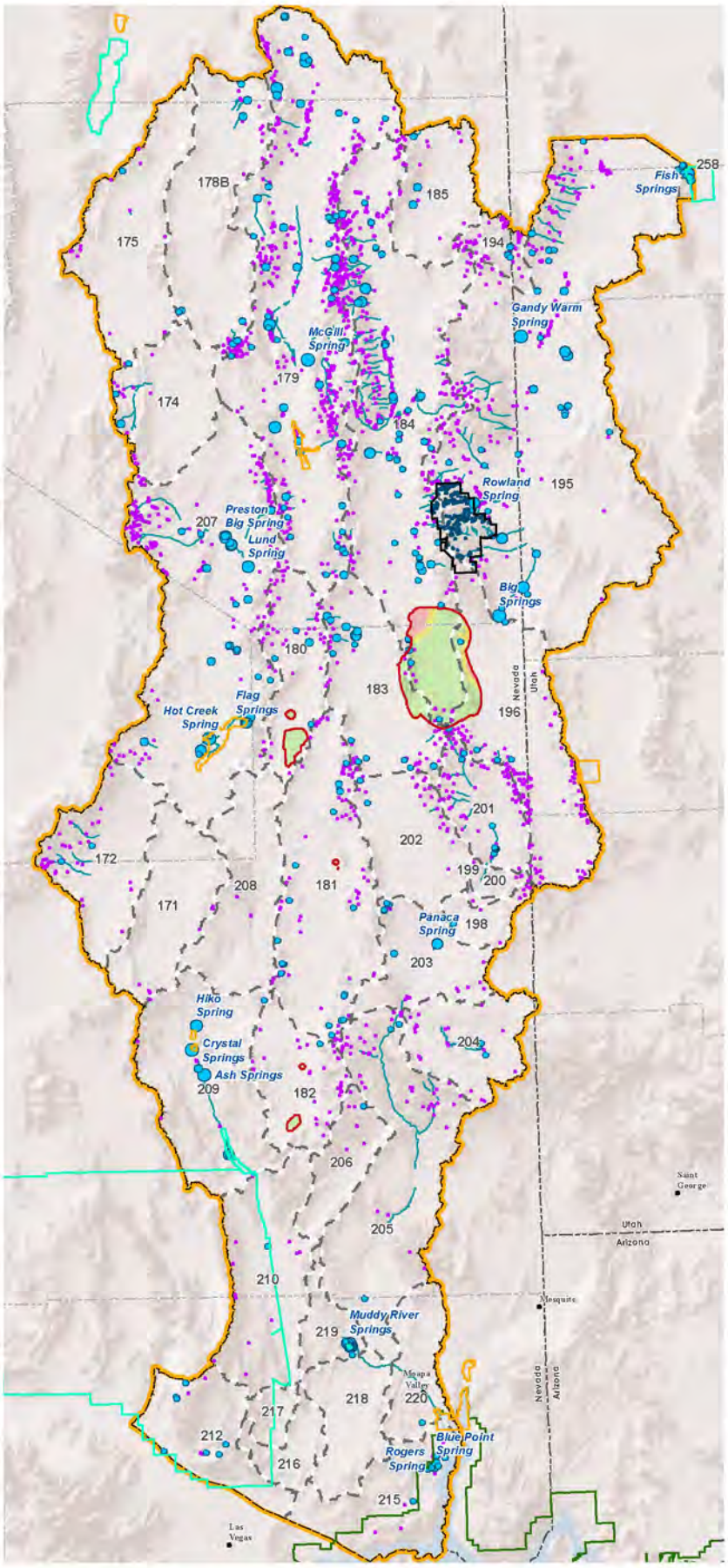

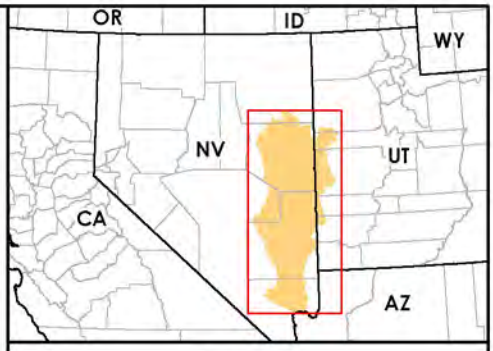

Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
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200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-13
Potentially Impacted Perennial Waters
Alt. D - (LCCRDA Dist. Pumping)
Full Build Out

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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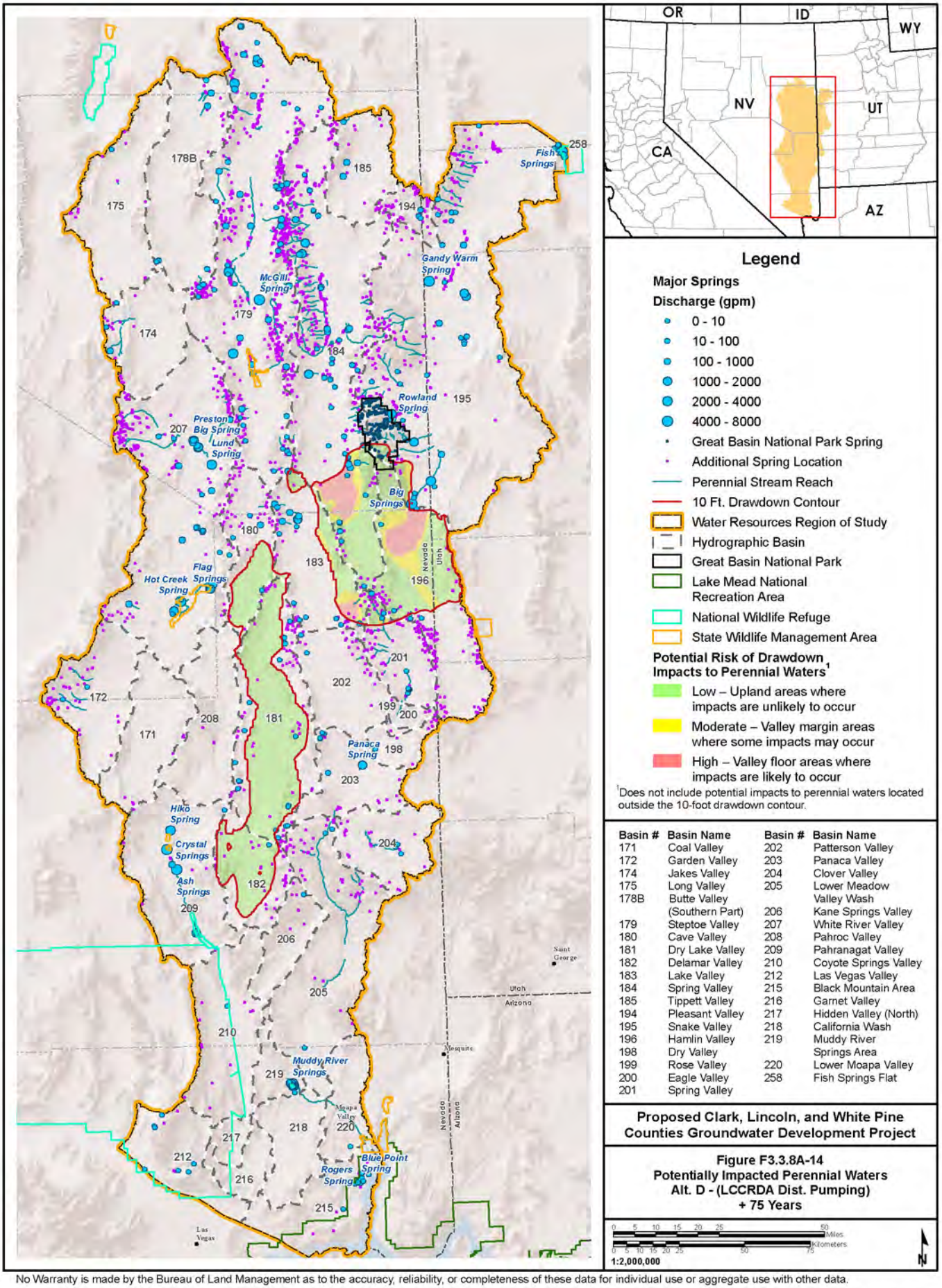

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199	Rose Valley	258	Fish Springs Flat
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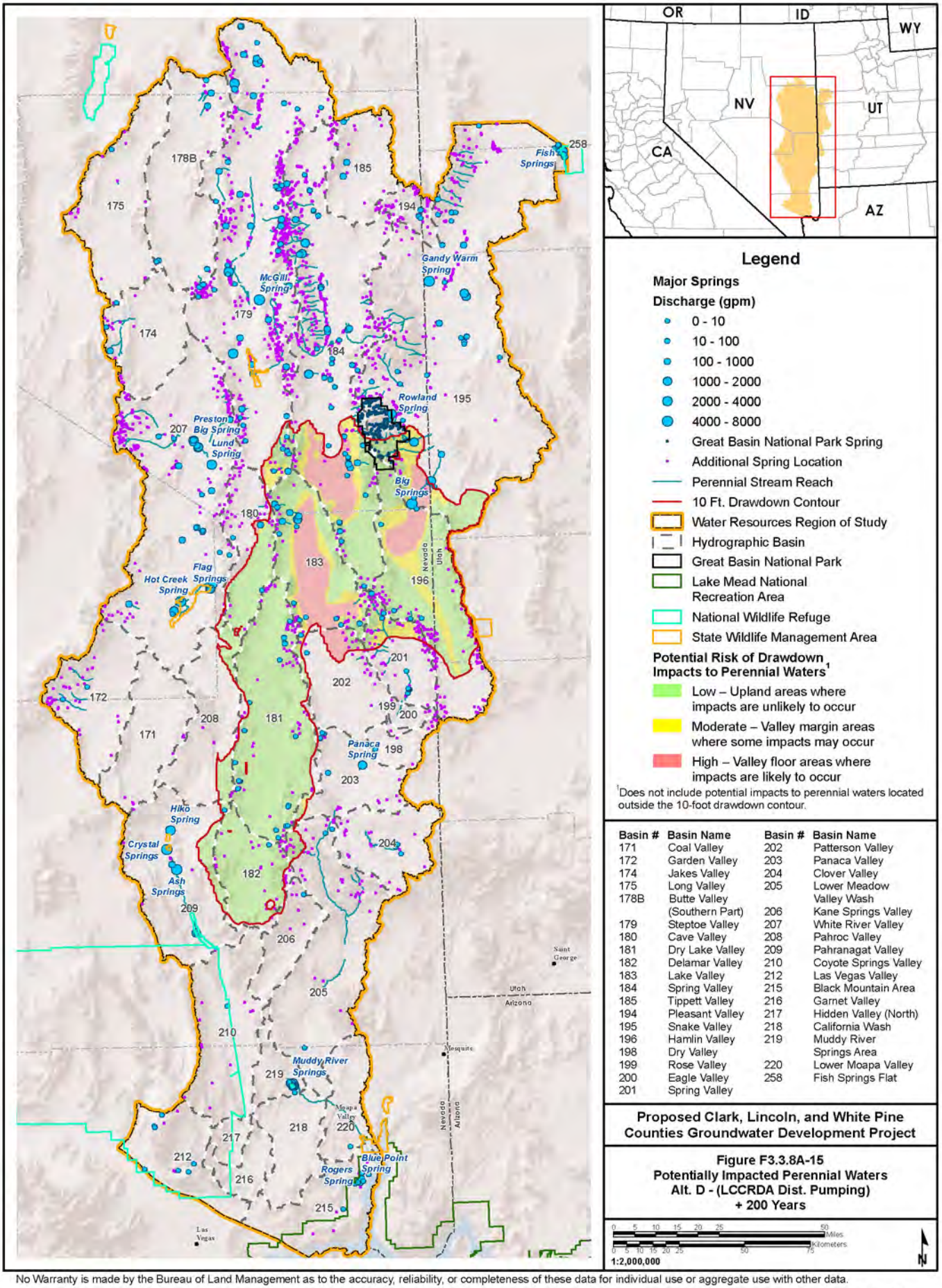
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

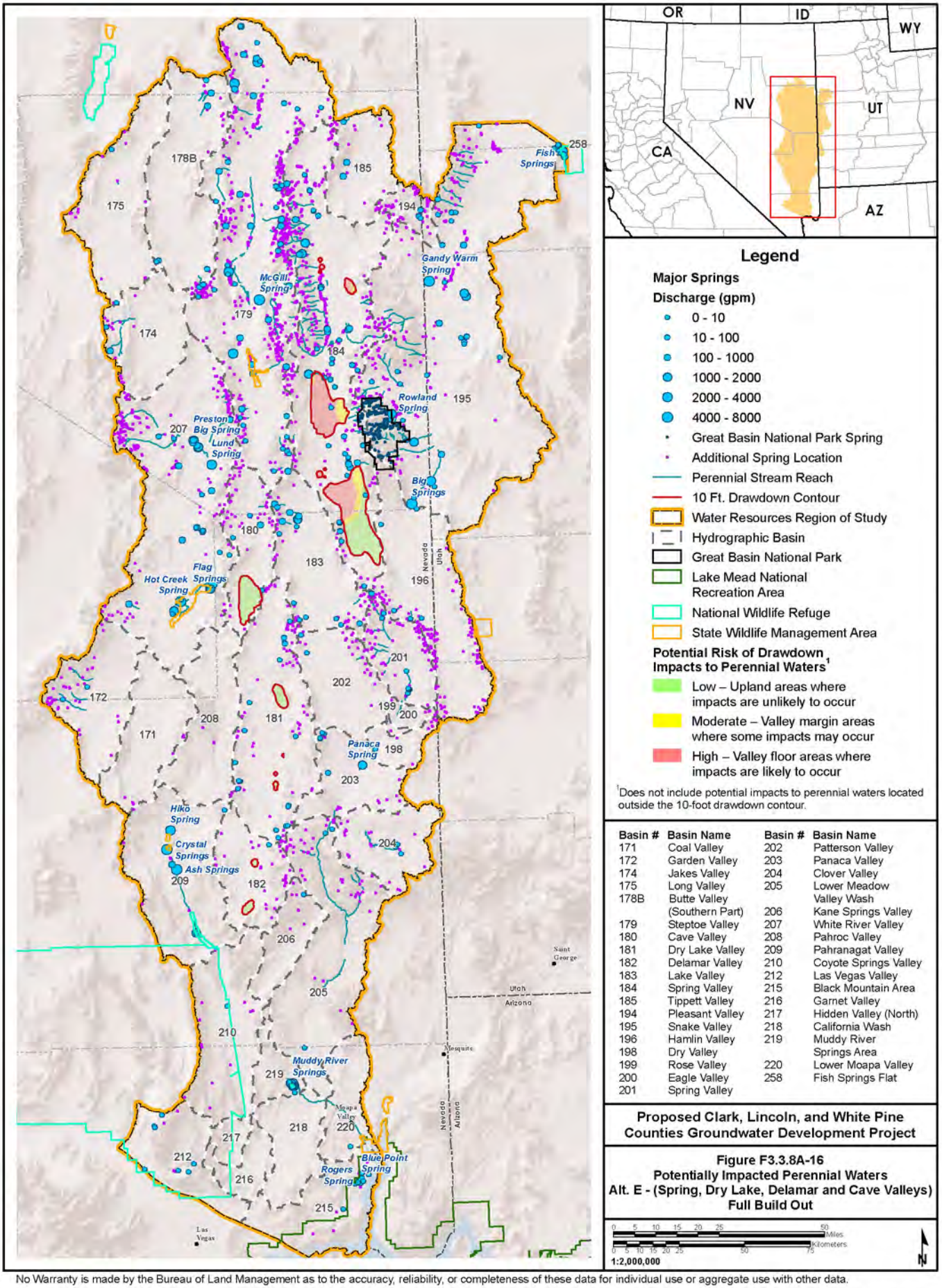
Figure F3.3.8A-14
Potentially Impacted Perennial Waters
Alt. D - (LCCRDA Dist. Pumping)
+ 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.



No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.



Basin #	Basin Name	Basin #	Basin Name
171	Coal Valley	202	Patterson Valley
172	Garden Valley	203	Panaca Valley
174	Jakes Valley	204	Clover Valley
175	Long Valley	205	Lower Meadow Valley Wash
178B	Butte Valley (Southern Part)	206	Kane Springs Valley
179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-16
Potentially Impacted Perennial Waters
Alt. E - (Spring, Dry Lake, Delamar and Cave Valleys)
Full Build Out

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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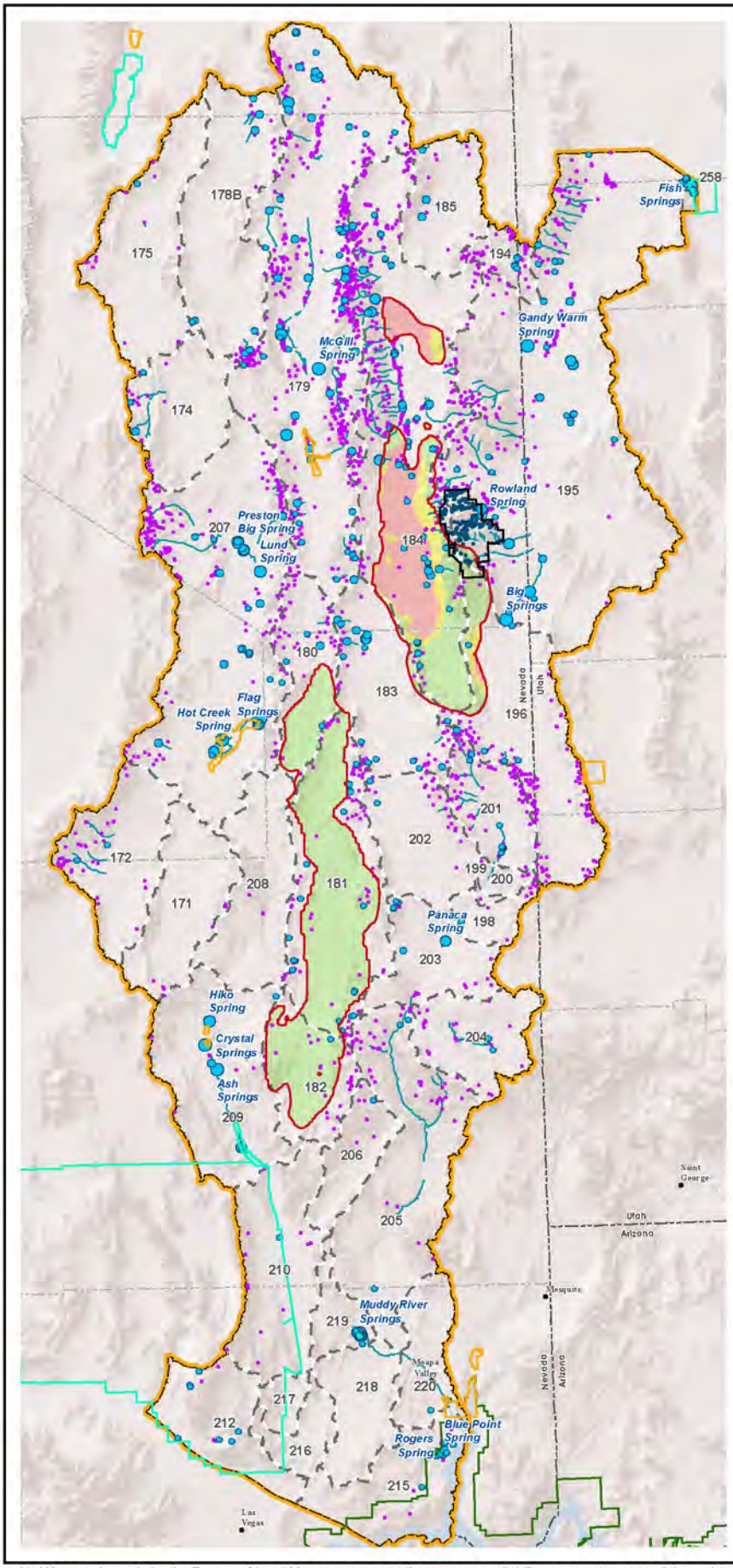

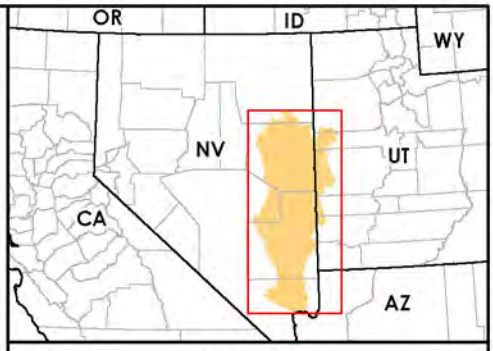

Legend

Major Springs

Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
- Moderate – Valley margin areas where some impacts may occur
- High – Valley floor areas where impacts are likely to occur

[1]Does not include potential impacts to perennial waters located outside the 10-foot drawdown contour.

Basin #	Basin Name	Basin #	Basin Name
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179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-17
Potentially Impacted Perennial Waters
Alt. E - (Spring, Dry Lake, Delamar and Cave Valleys) + 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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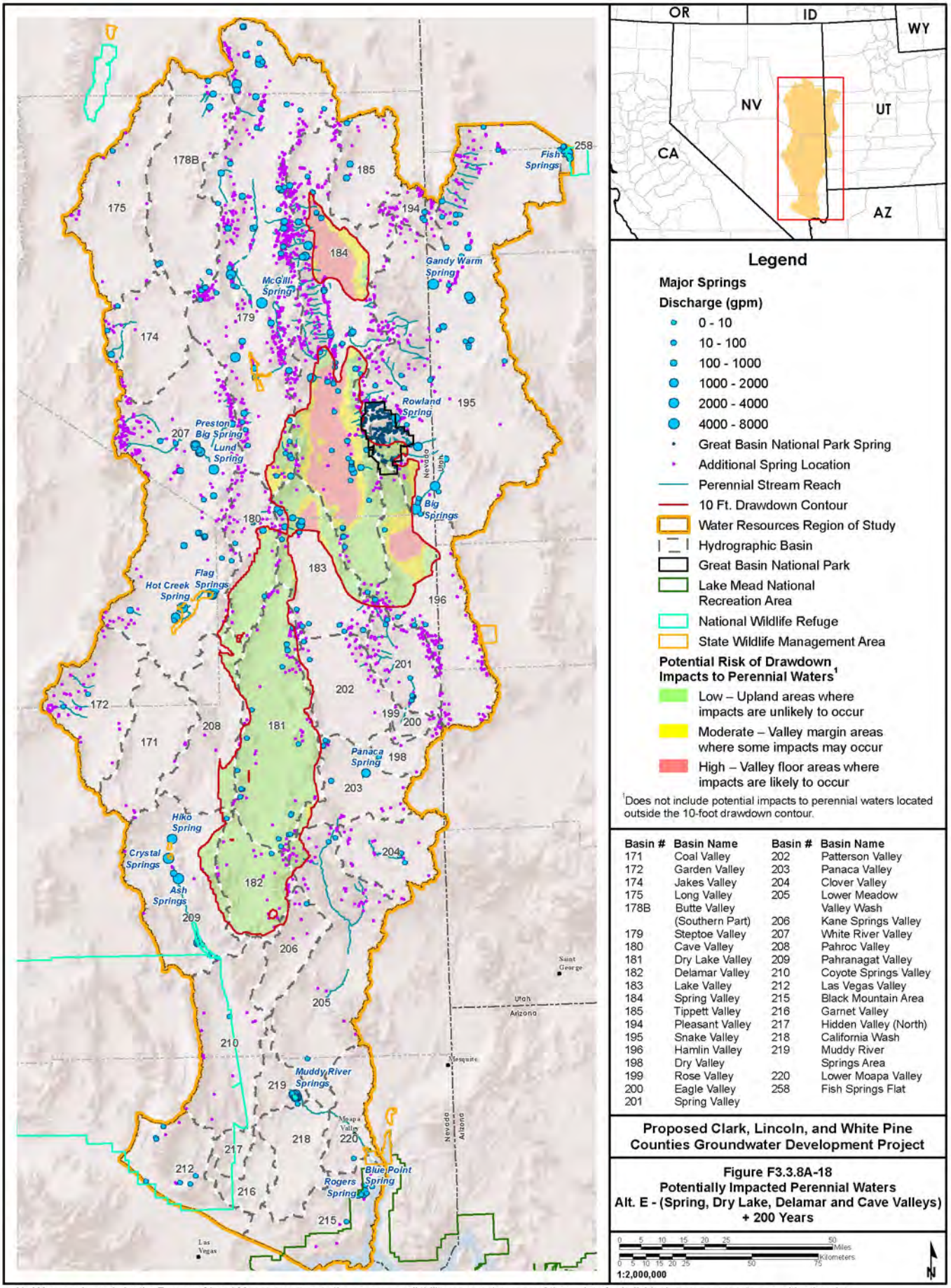

Basin #	Basin Name	Basin #	Basin Name
171	Coal Valley	202	Patterson Valley
172	Garden Valley	203	Panaca Valley
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175	Long Valley	205	Lower Meadow Valley Wash
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179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-18
Potentially Impacted Perennial Waters
Alt. E - (Spring, Dry Lake, Delamar and Cave Valleys) + 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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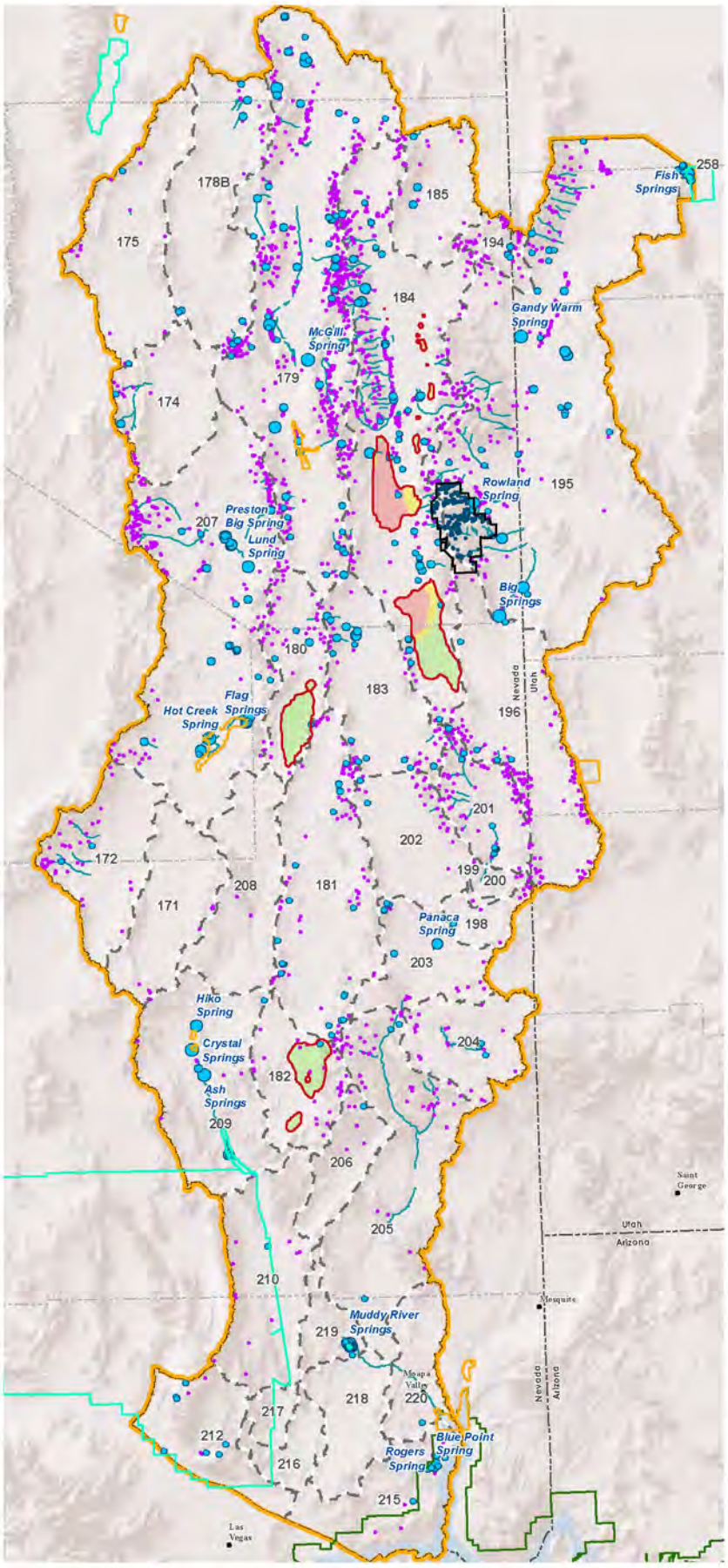

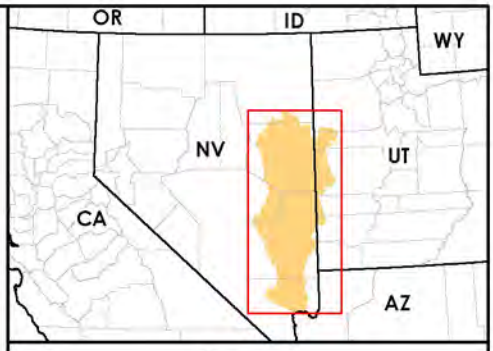

Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
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- High – Valley floor areas where impacts are likely to occur

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179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-19
Potentially Impacted Perennial Waters
Alt. F - (Spring, Dry Lake, Delamar and Cave Valleys)
Full Build Out

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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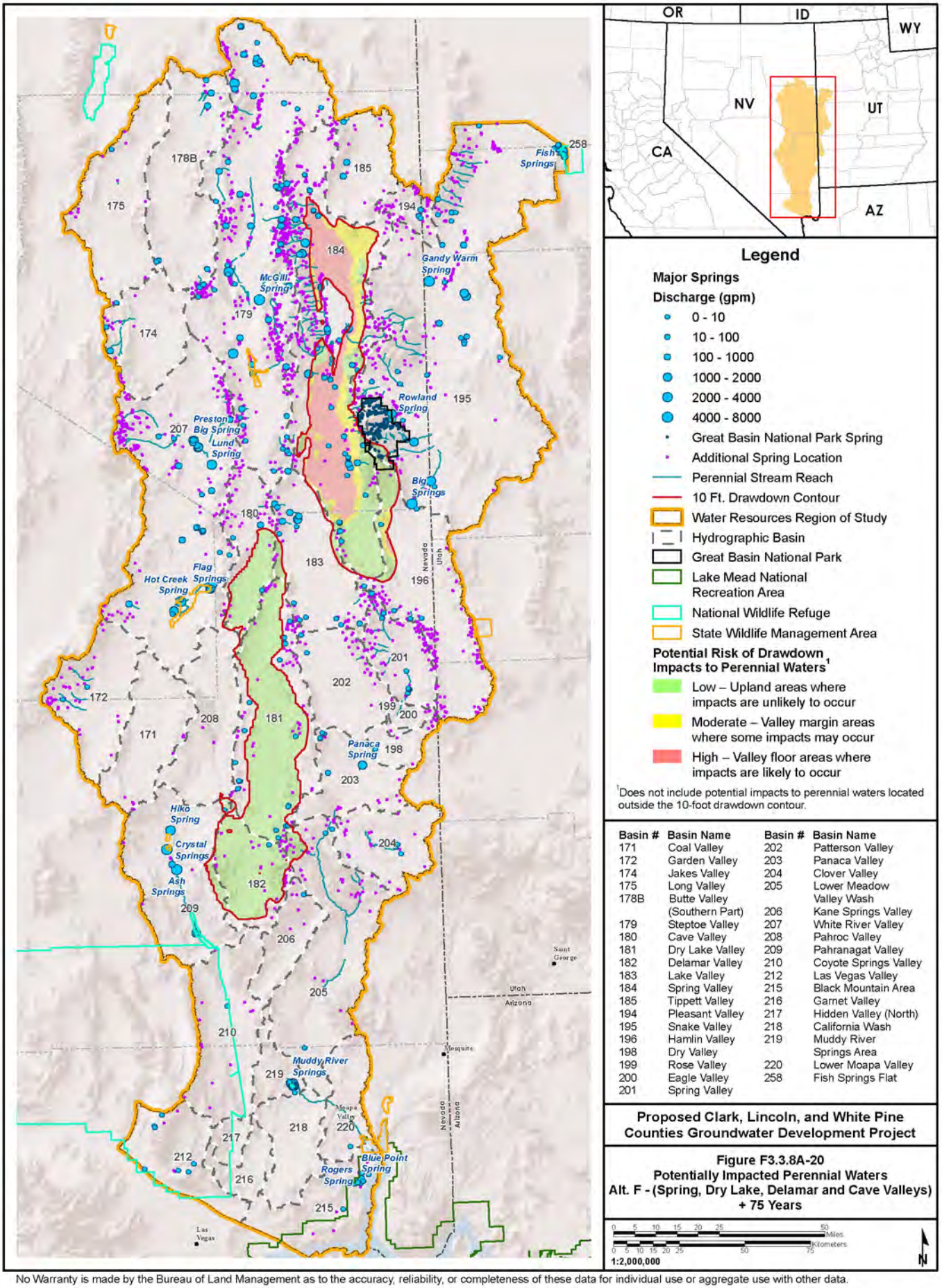

Basin #	Basin Name	Basin #	Basin Name
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172	Garden Valley	203	Panaca Valley
174	Jakes Valley	204	Clover Valley
175	Long Valley	205	Lower Meadow Valley Wash
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195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-20
Potentially Impacted Perennial Waters
Alt. F - (Spring, Dry Lake, Delamar and Cave Valleys) + 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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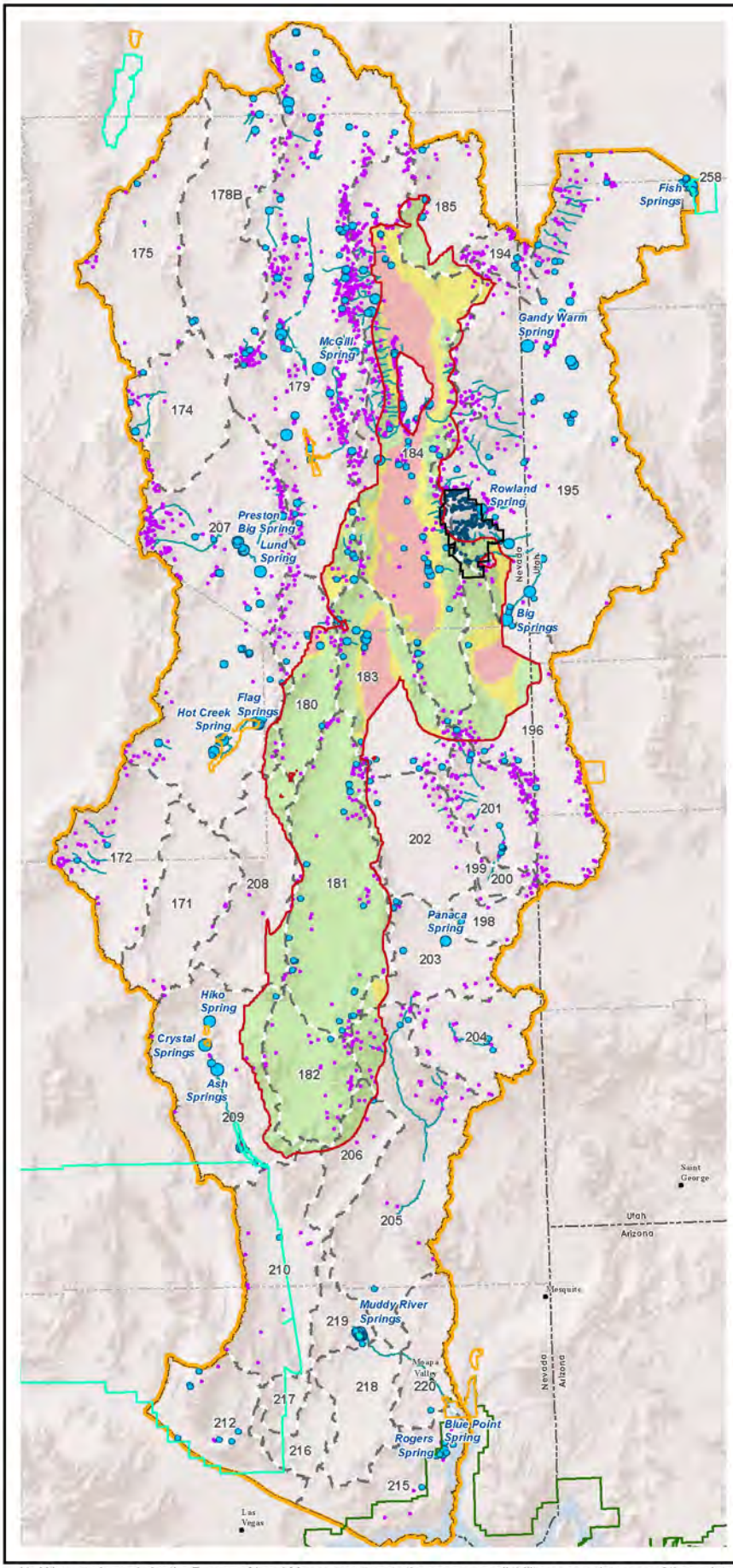

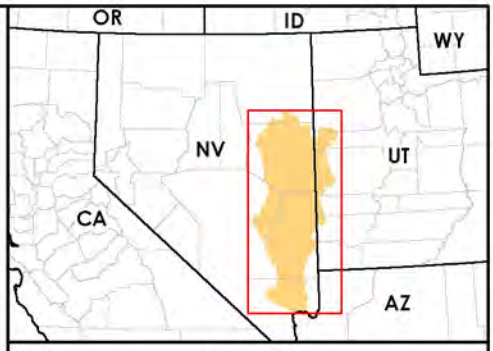

Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
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180	Cave Valley	208	Pahroc Valley
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194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-21
Potentially Impacted Perennial Waters
Alt. F - (Spring, Dry Lake, Delamar and Cave Valleys) + 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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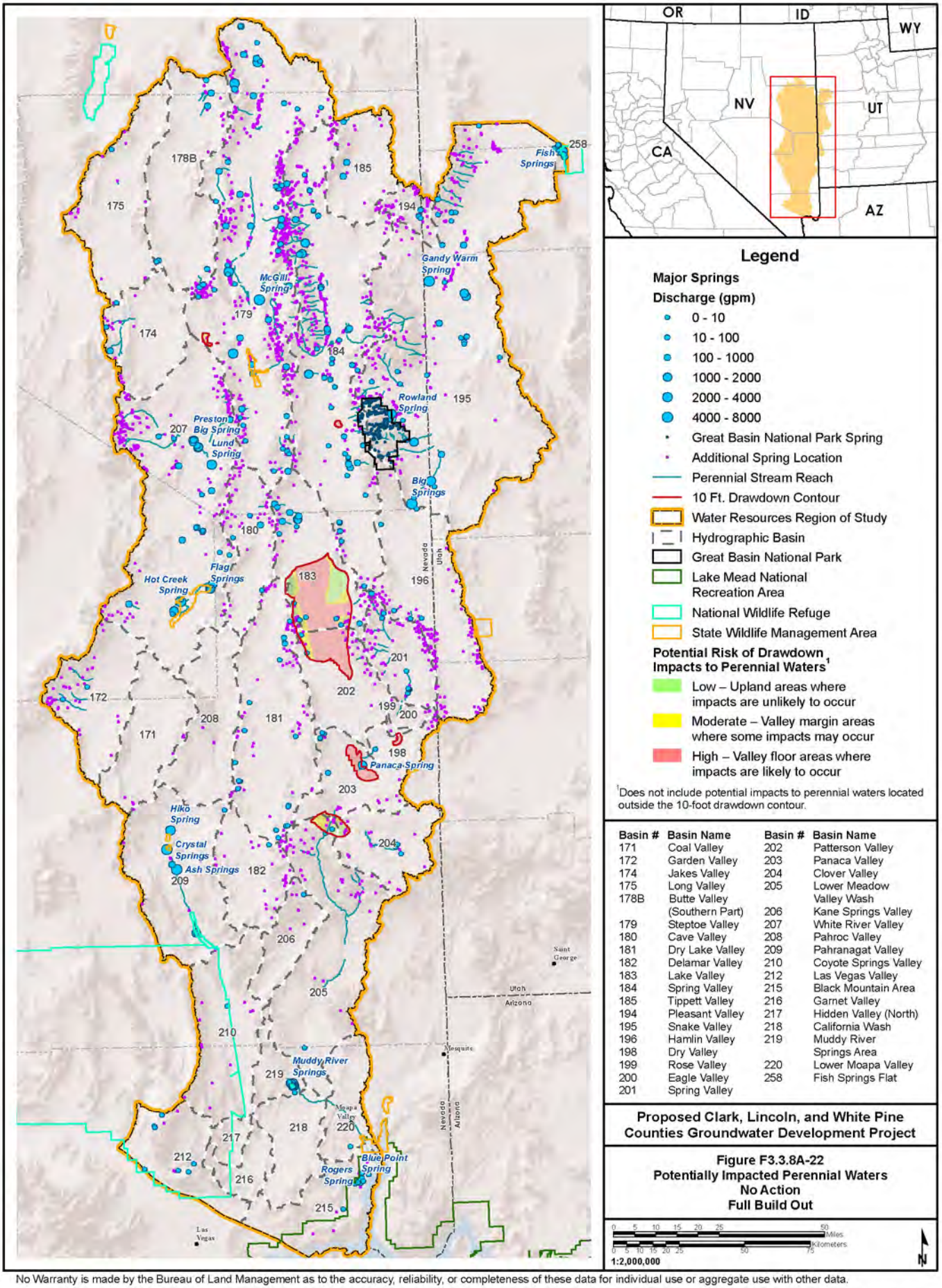

Basin #	Basin Name	Basin #	Basin Name
171	Coal Valley	202	Patterson Valley
172	Garden Valley	203	Panaca Valley
174	Jakes Valley	204	Clover Valley
175	Long Valley	205	Lower Meadow Valley Wash
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182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
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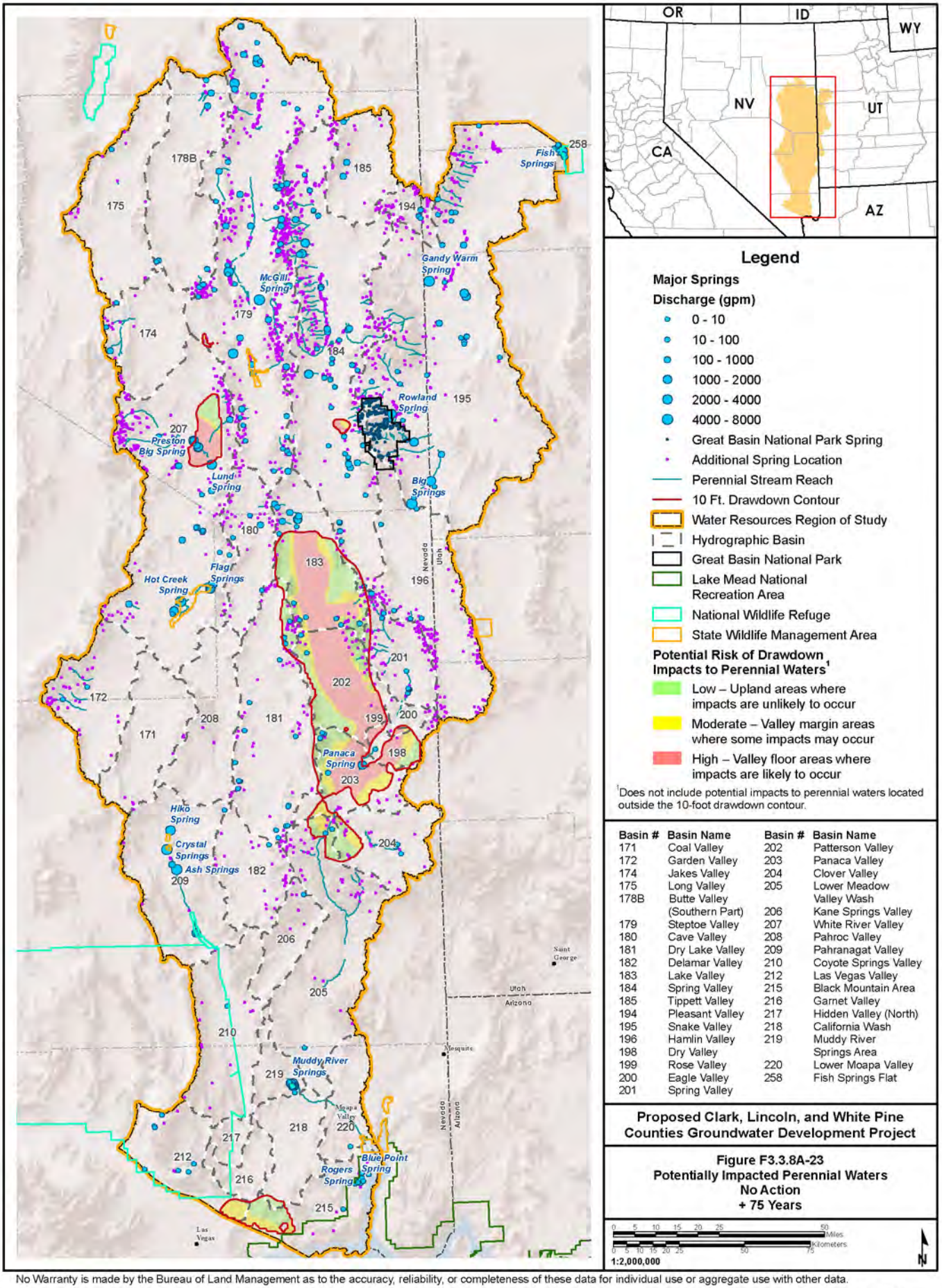
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-22
Potentially Impacted Perennial Waters
No Action
Full Build Out

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.



Basin #	Basin Name	Basin #	Basin Name
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172	Garden Valley	203	Panaca Valley
174	Jakes Valley	204	Clover Valley
175	Long Valley	205	Lower Meadow Valley Wash
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179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-23
Potentially Impacted Perennial Waters
No Action
+ 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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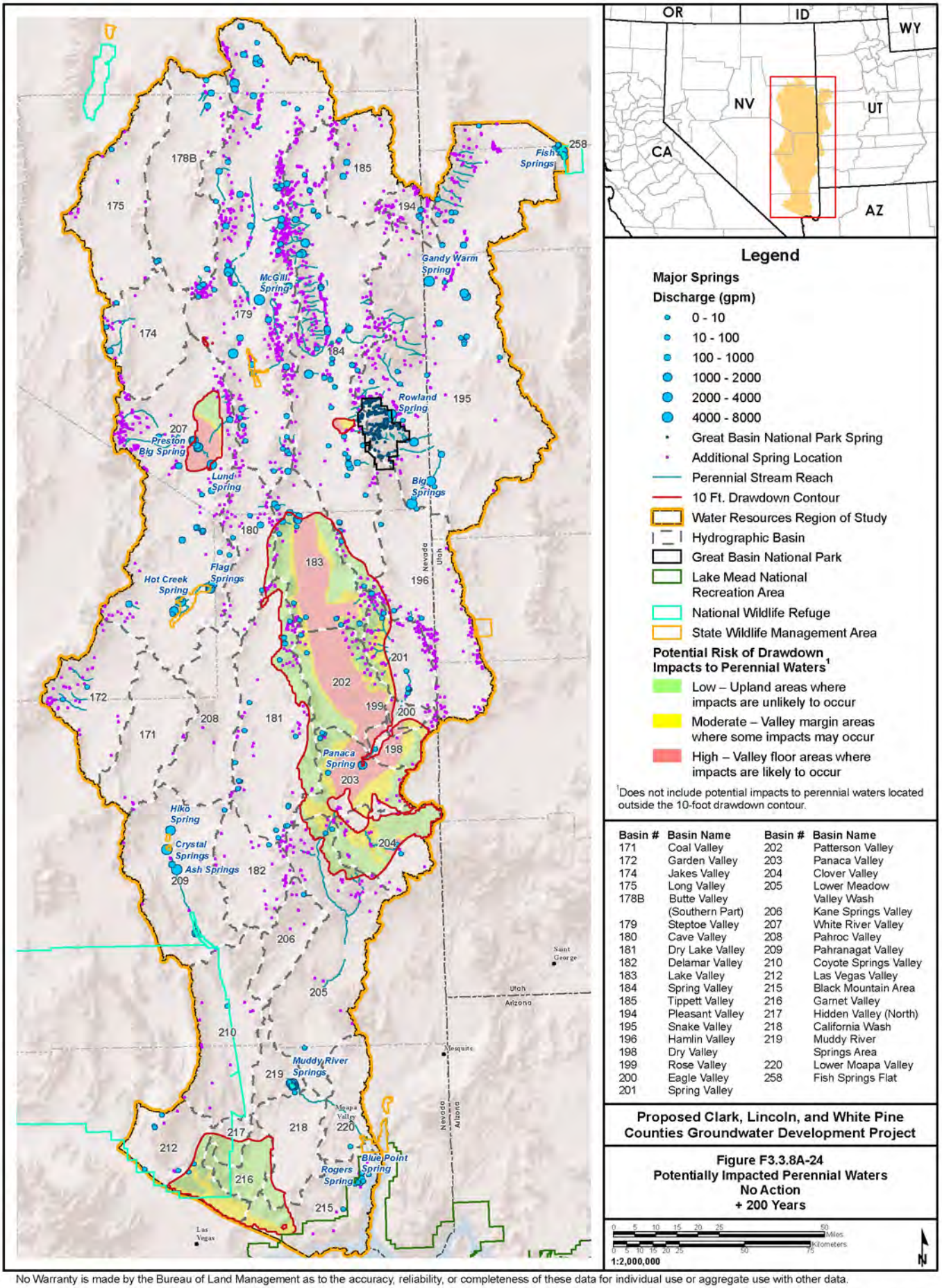

Basin #	Basin Name	Basin #	Basin Name
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196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8A-24
Potentially Impacted Perennial Waters
No Action
+ 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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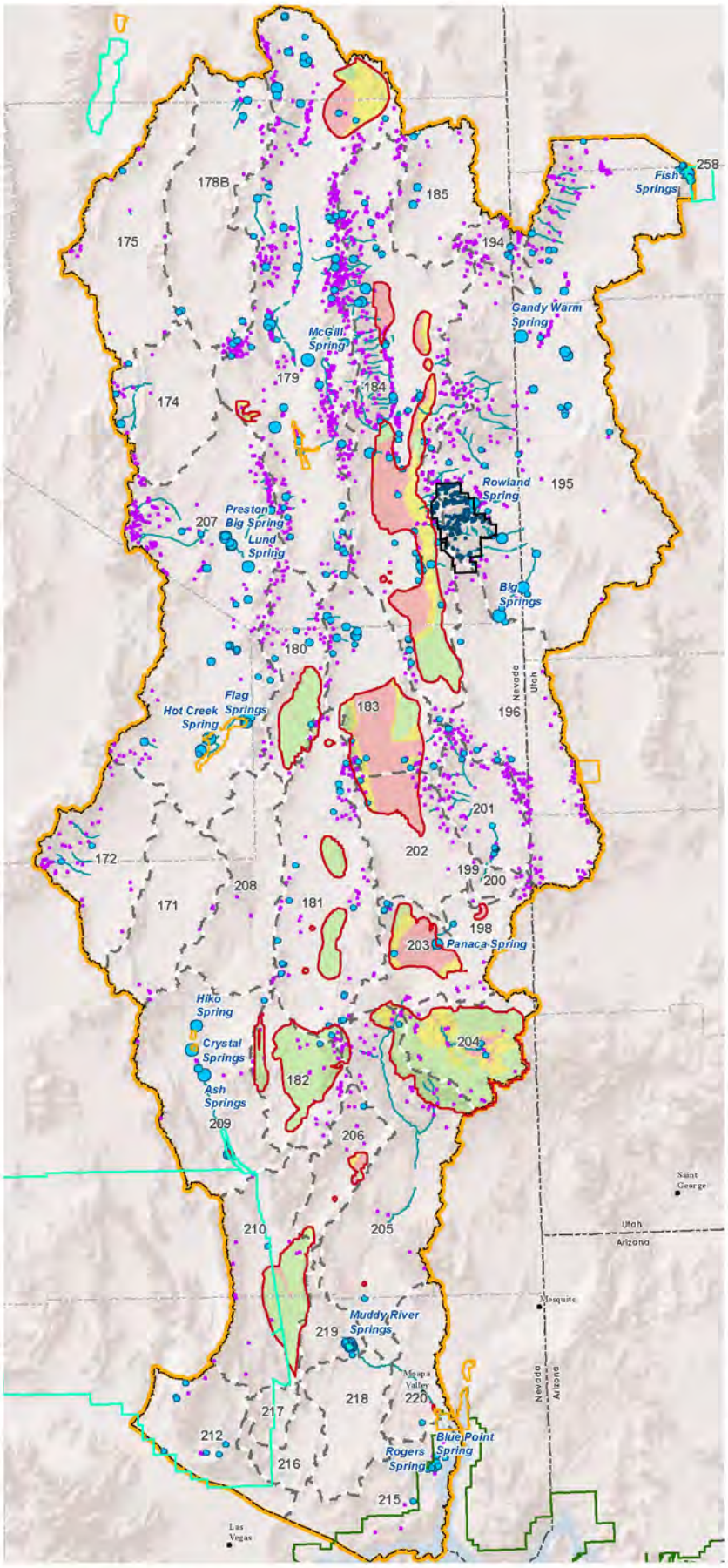

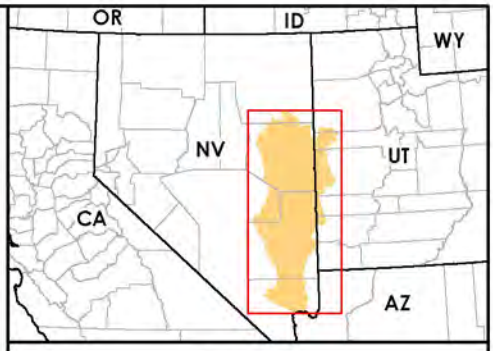

Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
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Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
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- High – Valley floor areas where impacts are likely to occur

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179	Steptoe Valley	207	White River Valley
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181	Dry Lake Valley	209	Pahranagat Valley
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183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-1
Potentially Impacted Perennial Waters
Proposed Action Cumulative Effects
Full Build Out

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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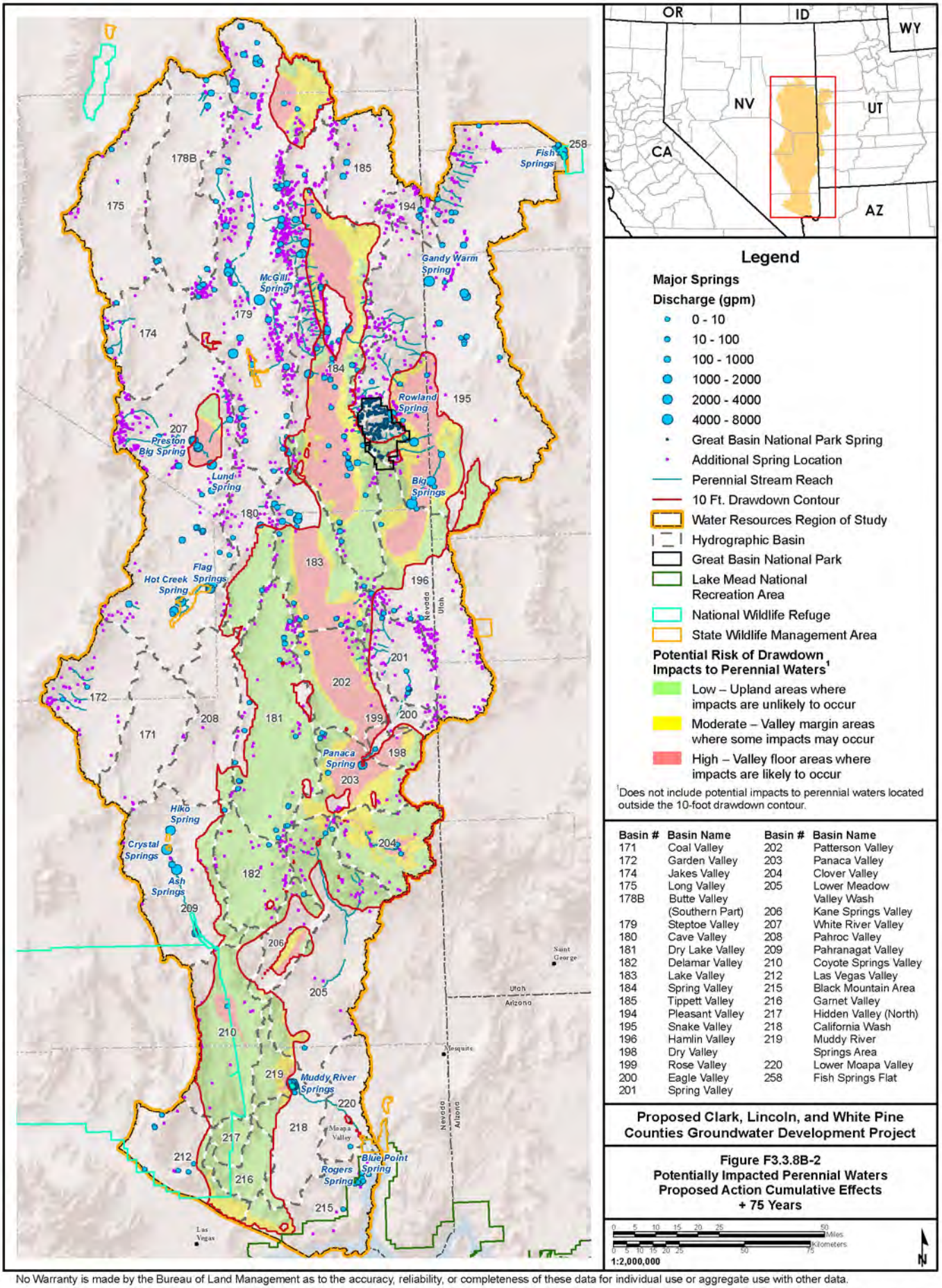

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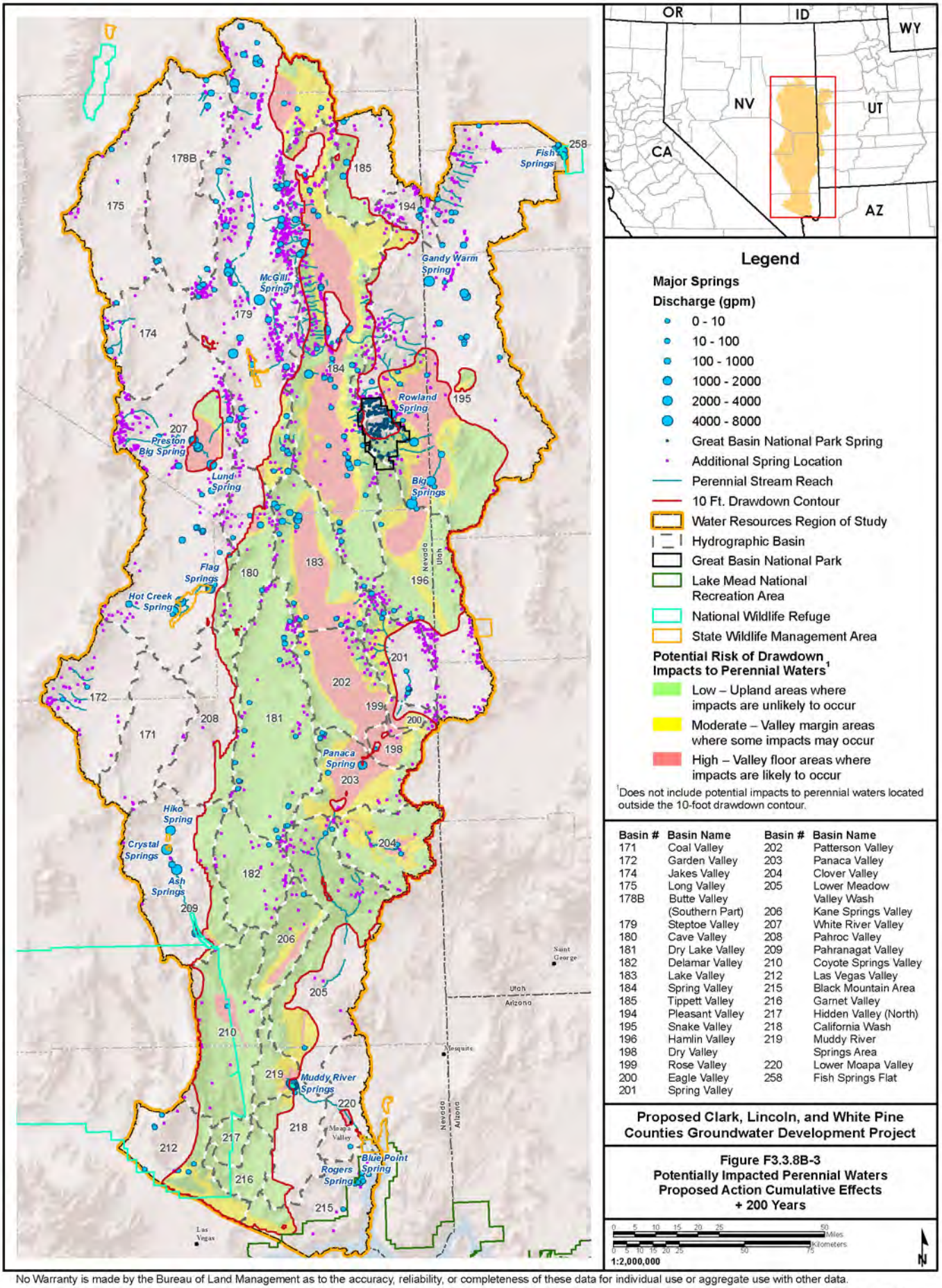

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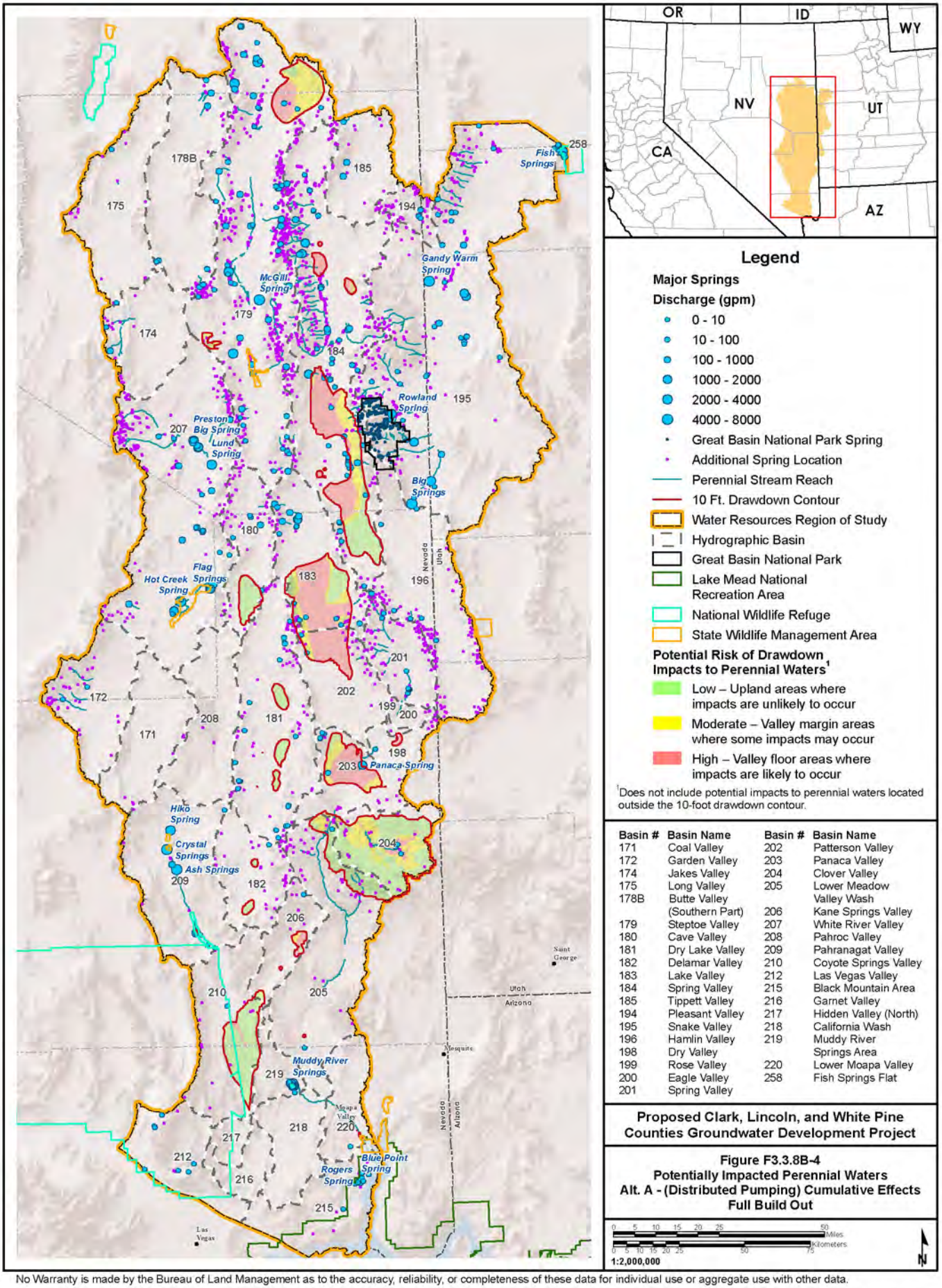

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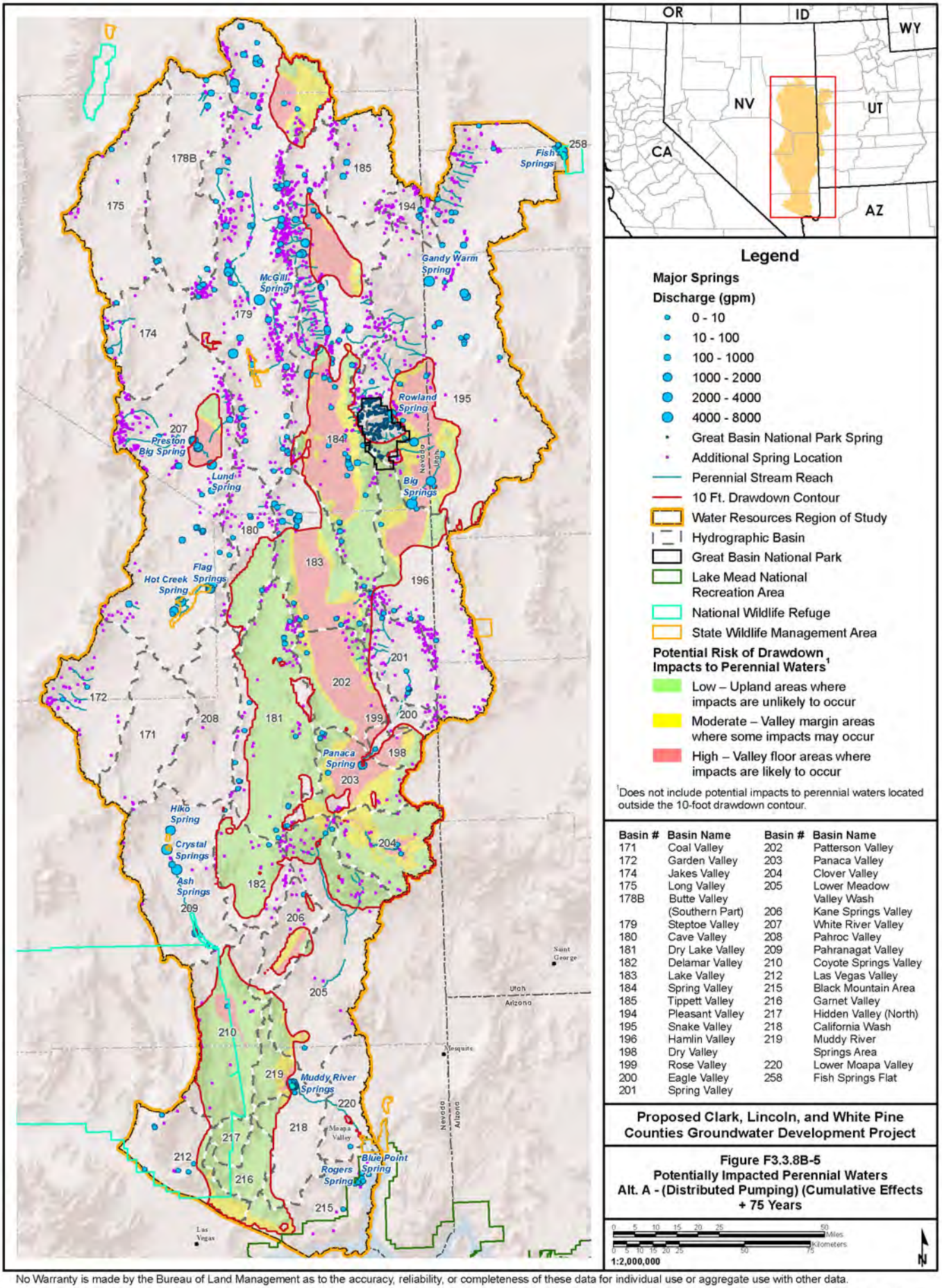

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198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-5
Potentially Impacted Perennial Waters
Alt. A - (Distributed Pumping) (Cumulative Effects + 75 Years

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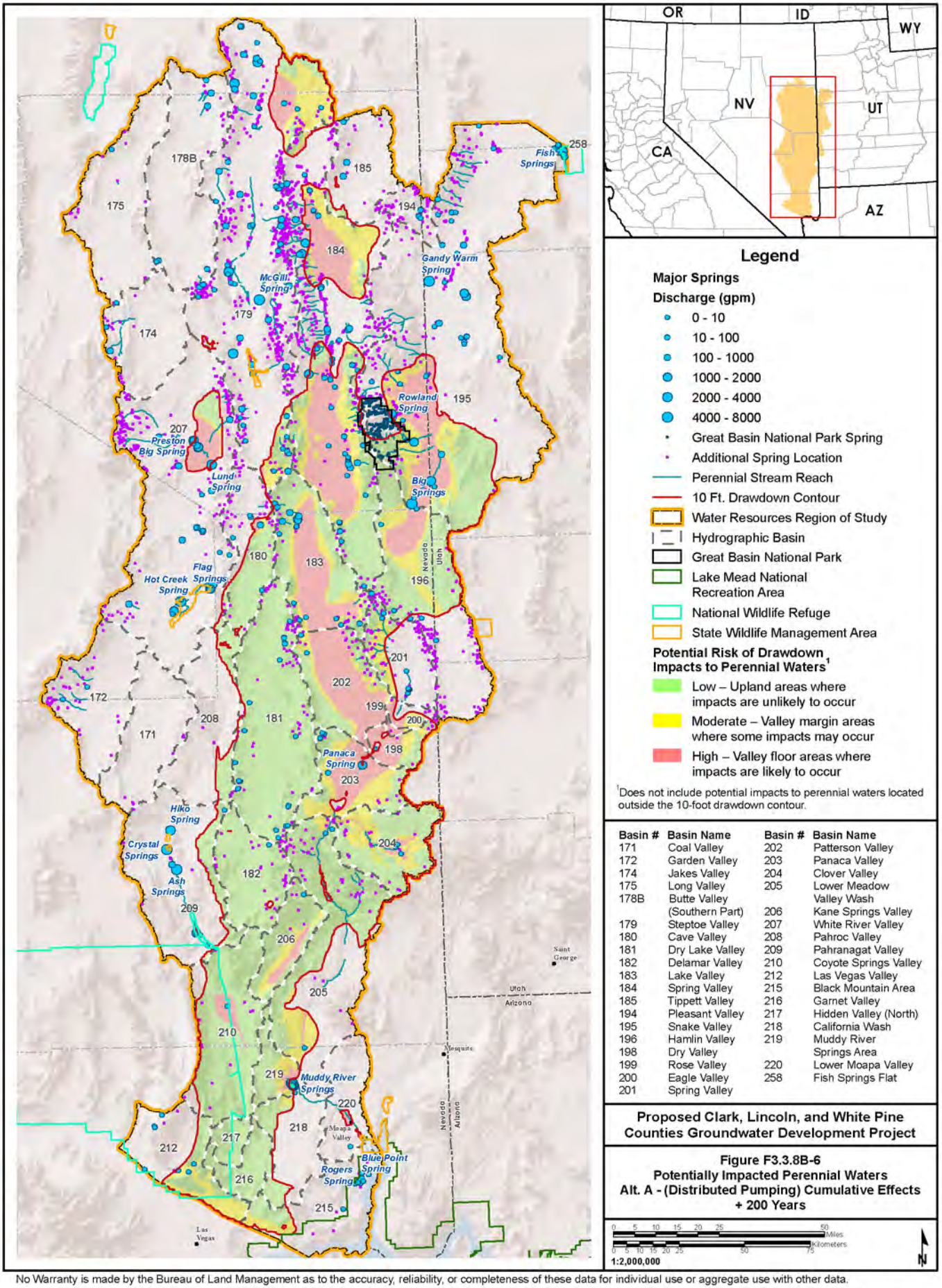

Basin #	Basin Name	Basin #	Basin Name
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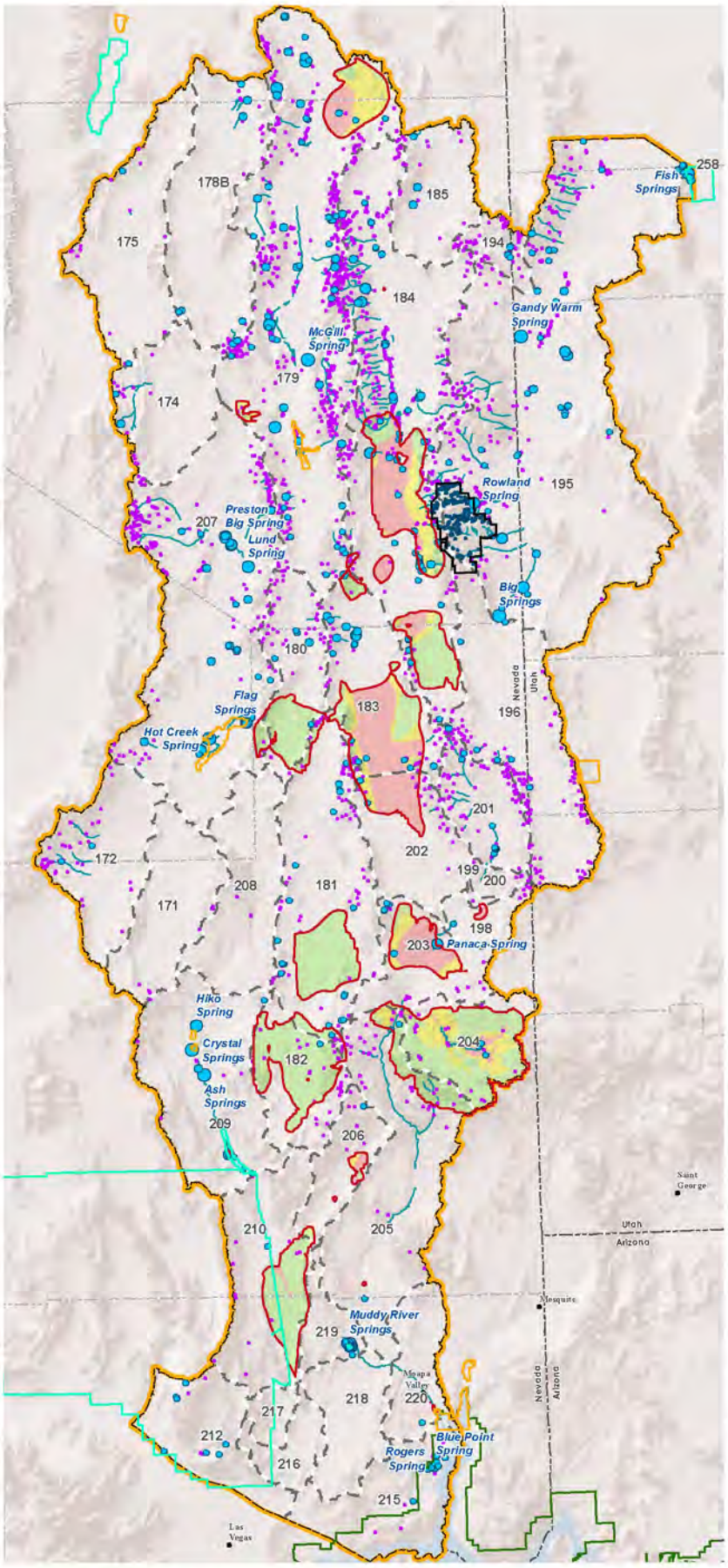
178B	Butte Valley (Southern Part)	206	Kane Springs Valley
179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

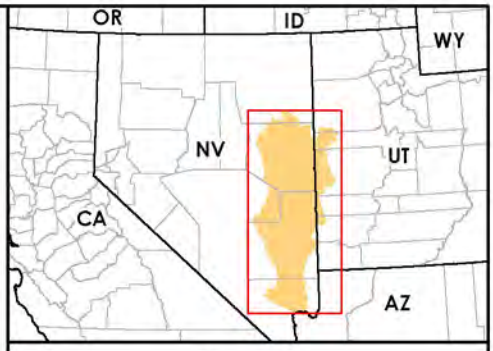
Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-6
Potentially Impacted Perennial Waters
Alt. A - (Distributed Pumping) Cumulative Effects + 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.





Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
- Moderate – Valley margin areas where some impacts may occur
- High – Valley floor areas where impacts are likely to occur

[1]Does not include potential impacts to perennial waters located outside the 10-foot drawdown contour.

Basin #	Basin Name	Basin #	Basin Name
171	Coal Valley	202	Patterson Valley
172	Garden Valley	203	Panaca Valley
174	Jakes Valley	204	Clover Valley
175	Long Valley	205	Lower Meadow Valley Wash
178B	Butte Valley (Southern Part)	206	Kane Springs Valley
179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-7
Potentially Impacted Perennial Waters
Alt. B - (Points of Diversion) Cumulative Effects
Full Build Out

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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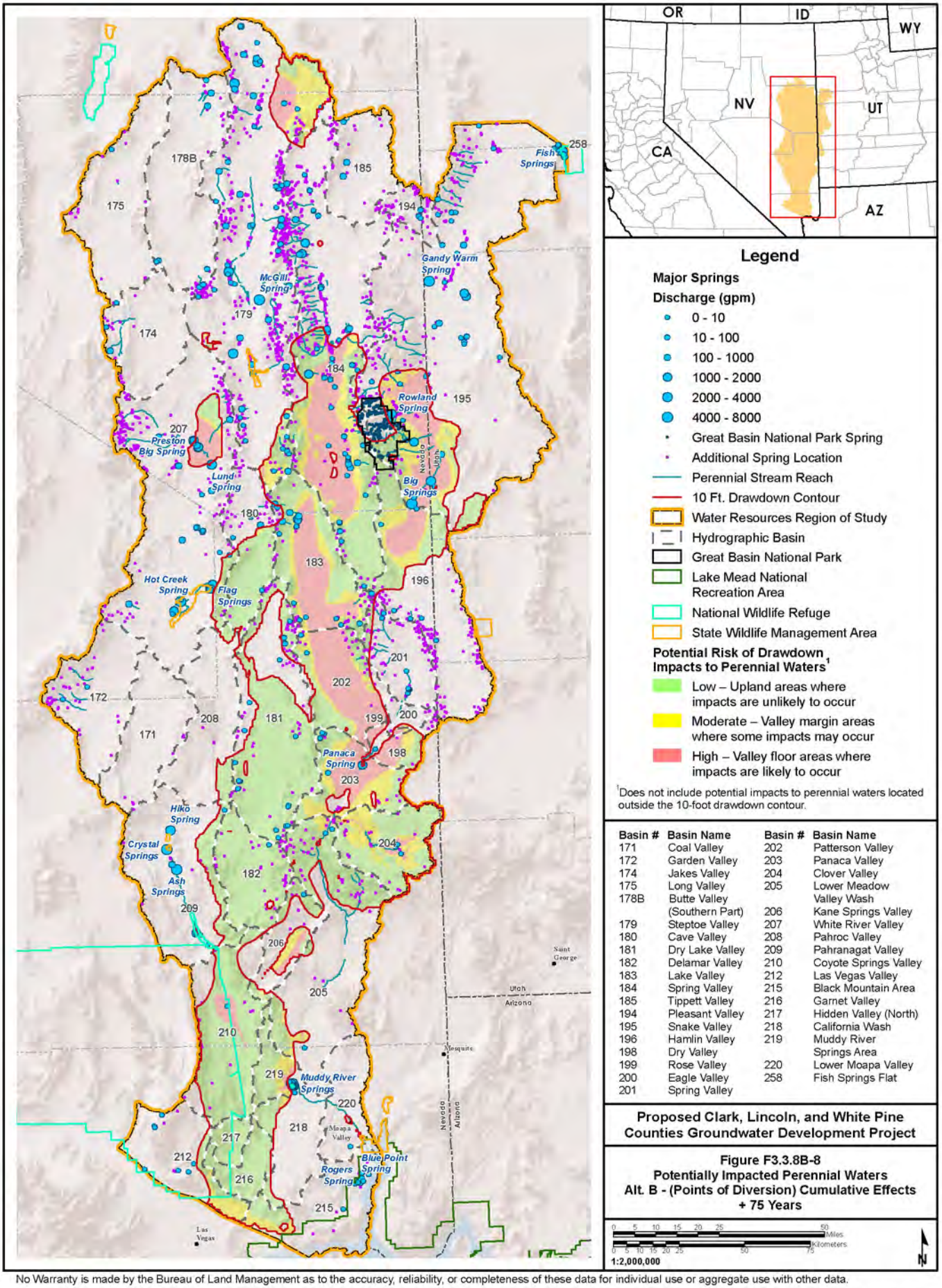

Basin #	Basin Name	Basin #	Basin Name
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172	Garden Valley	203	Panaca Valley
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175	Long Valley	205	Lower Meadow Valley Wash
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179	Steptoe Valley	207	White River Valley
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181	Dry Lake Valley	209	Pahranagat Valley
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194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-8
Potentially Impacted Perennial Waters
Alt. B - (Points of Diversion) Cumulative Effects + 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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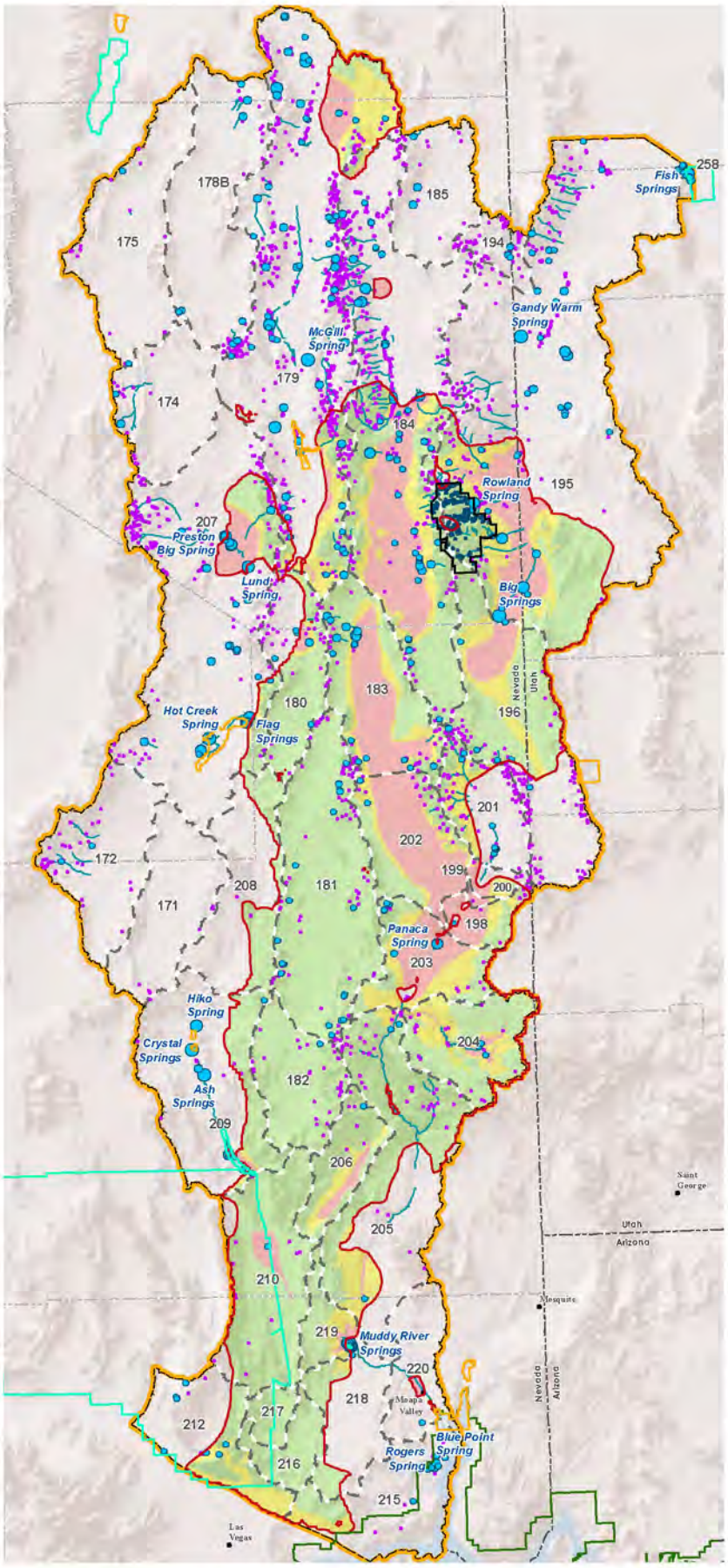

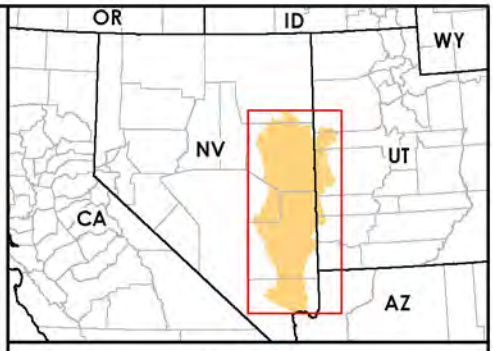

Legend

Major Springs

Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
- Moderate – Valley margin areas where some impacts may occur
- High – Valley floor areas where impacts are likely to occur

[1]Does not include potential impacts to perennial waters located outside the 10-foot drawdown contour.

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179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-9
Potentially Impacted Perennial Waters
Alt. B - (Points of Diversion) Cumulative Effects + 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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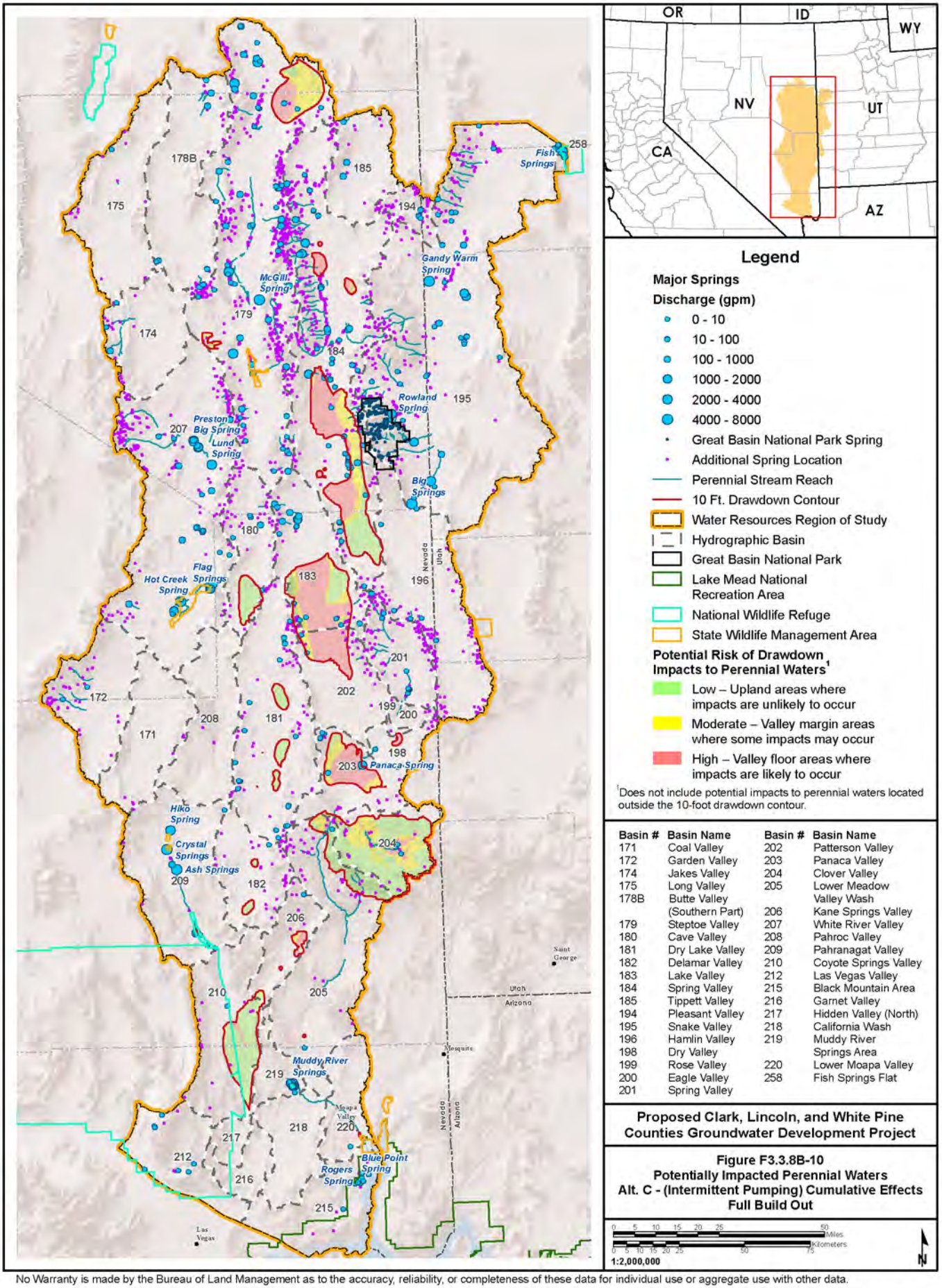

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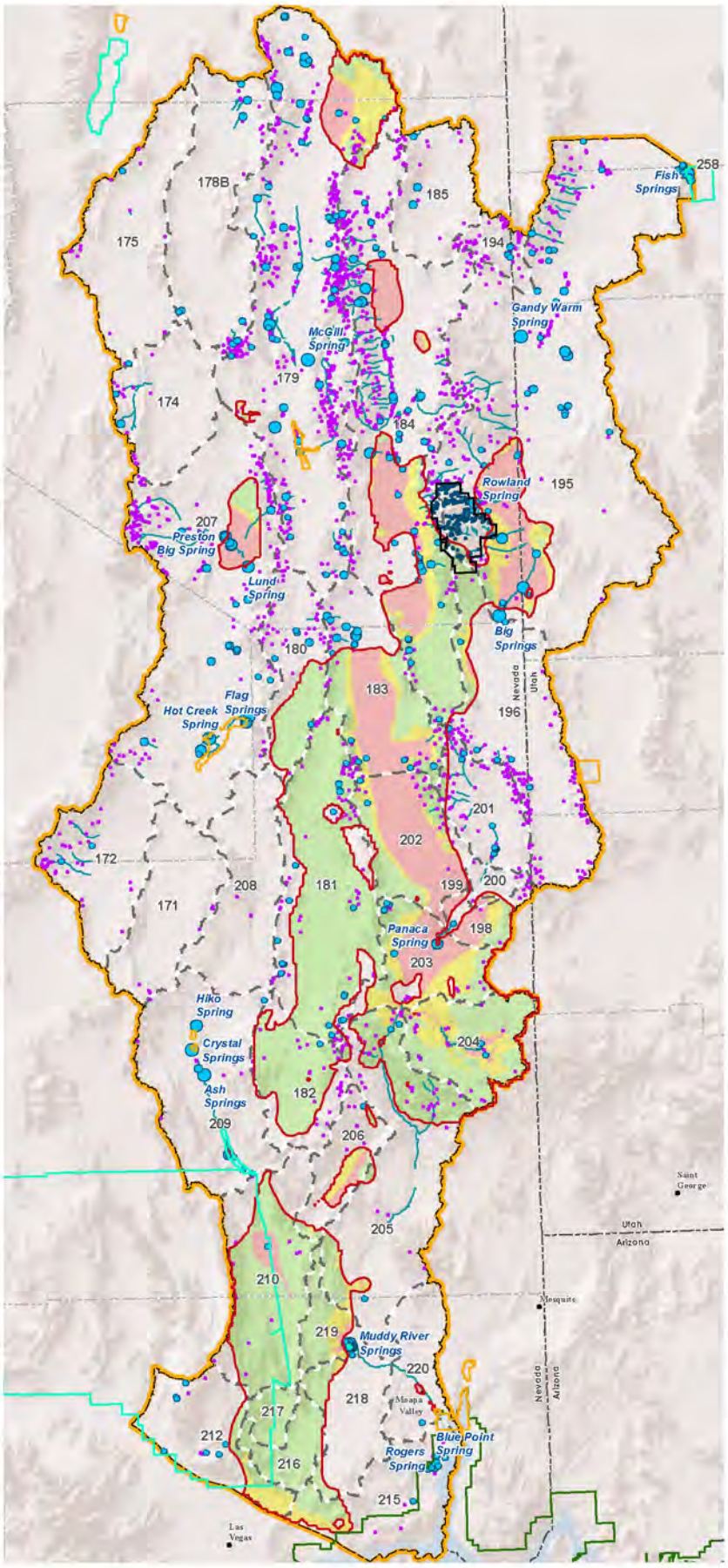

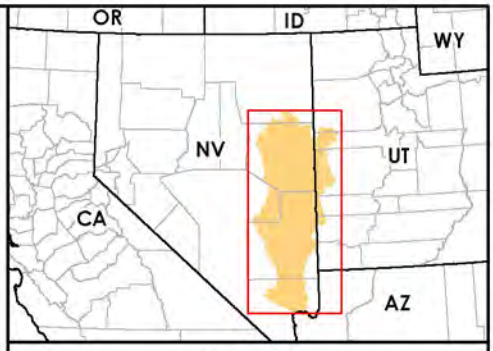

Legend

Major Springs

Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
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- High – Valley floor areas where impacts are likely to occur

[1]Does not include potential impacts to perennial waters located outside the 10-foot drawdown contour.

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179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-11
Potentially Impacted Perennial Waters
Alt. C - (Intermittent Pumping) Cumulative Effects + 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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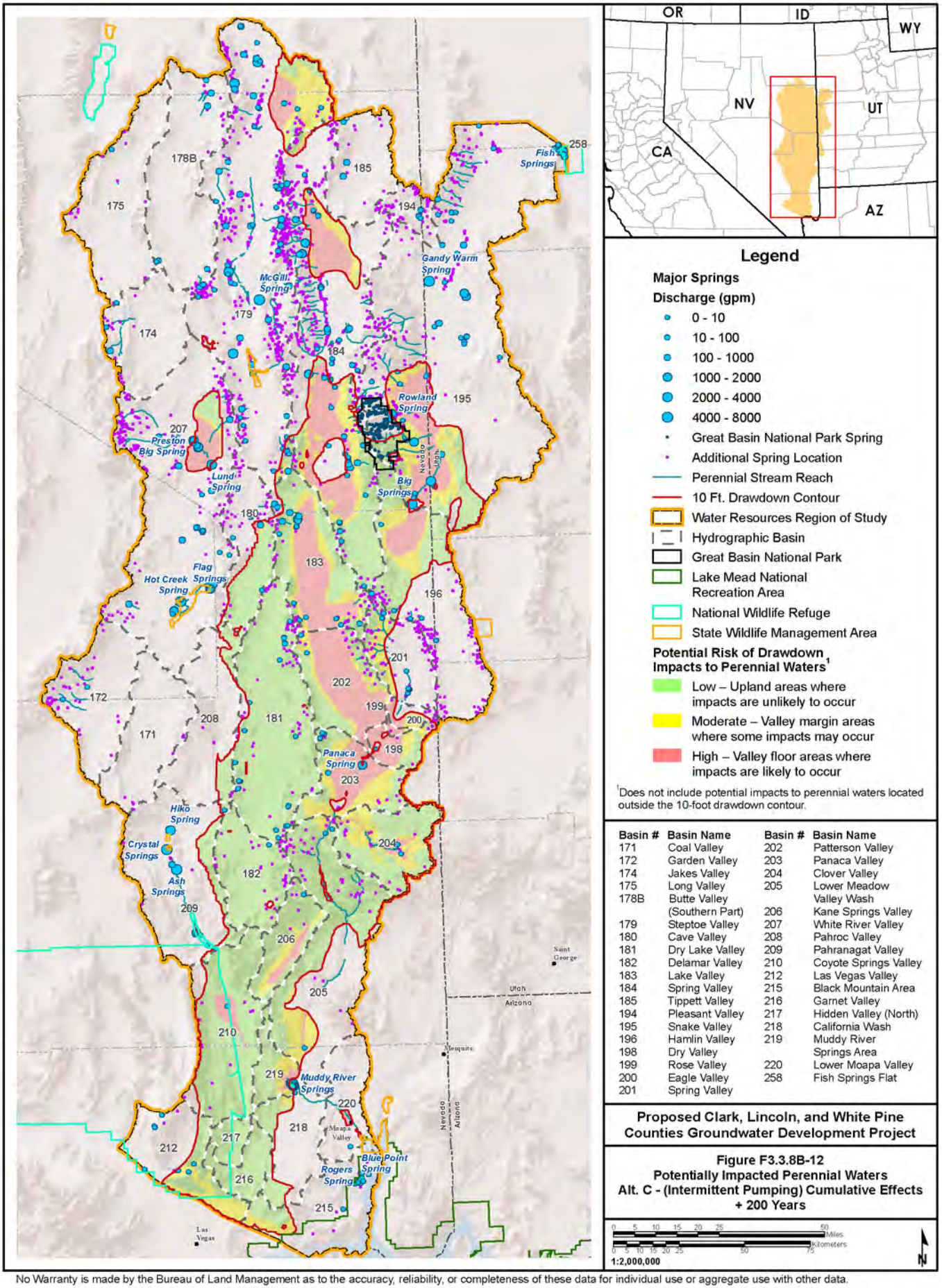

Basin #	Basin Name	Basin #	Basin Name
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175	Long Valley	205	Lower Meadow Valley Wash
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194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-12
Potentially Impacted Perennial Waters
Alt. C - (Intermittent Pumping) Cumulative Effects + 200 Years

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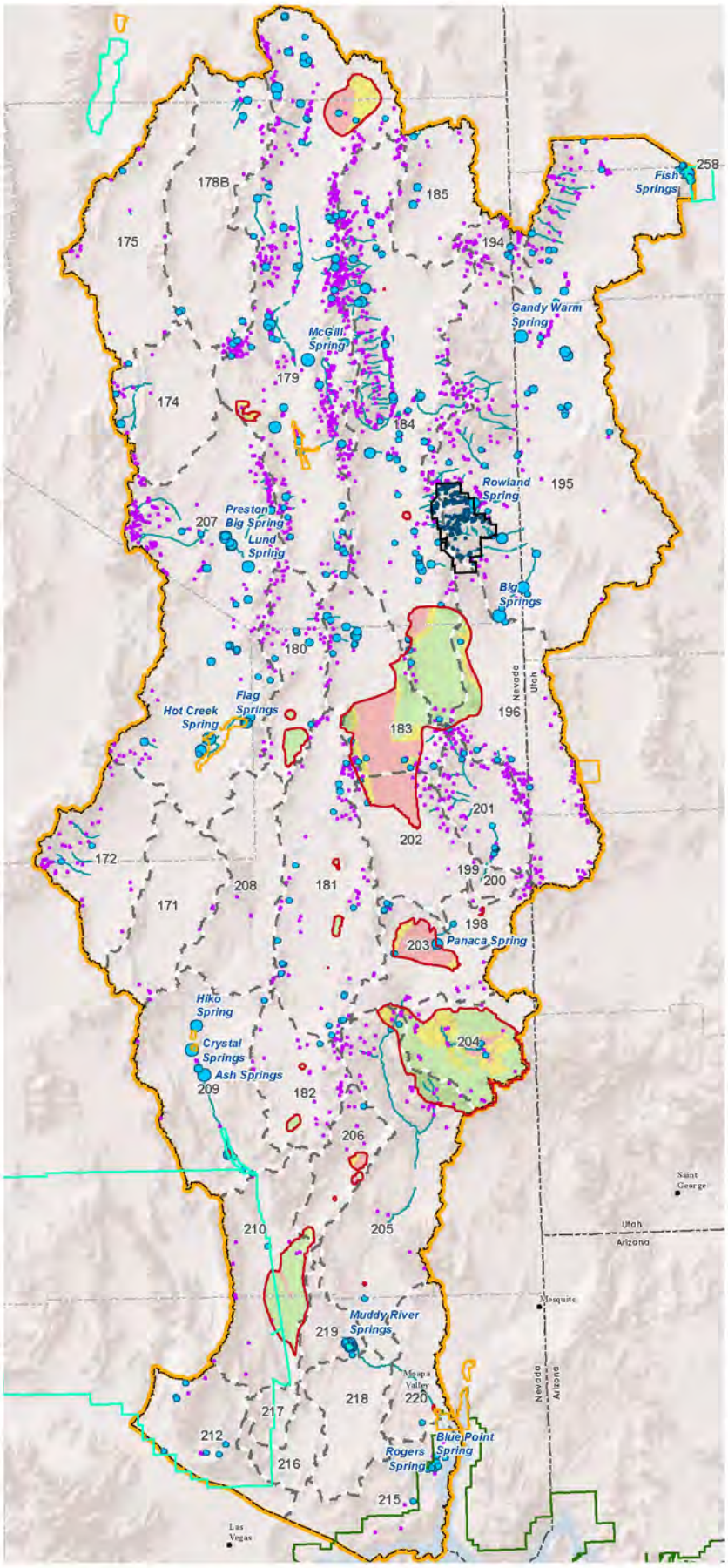

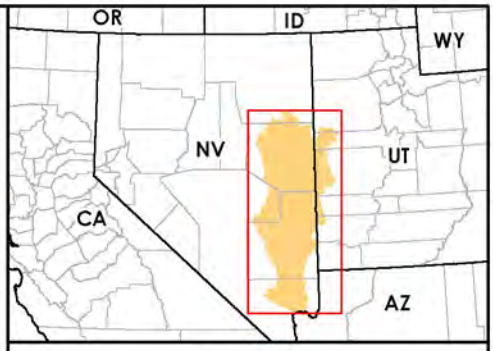

Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
- Moderate – Valley margin areas where some impacts may occur
- High – Valley floor areas where impacts are likely to occur

[1]Does not include potential impacts to perennial waters located outside the 10-foot drawdown contour.

Basin #	Basin Name	Basin #	Basin Name
171	Coal Valley	202	Patterson Valley
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179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-13
Potentially Impacted Perennial Waters
Alt. D - (LCCRDA Dist. Pumping) Cumulative Effects
Full Build Out

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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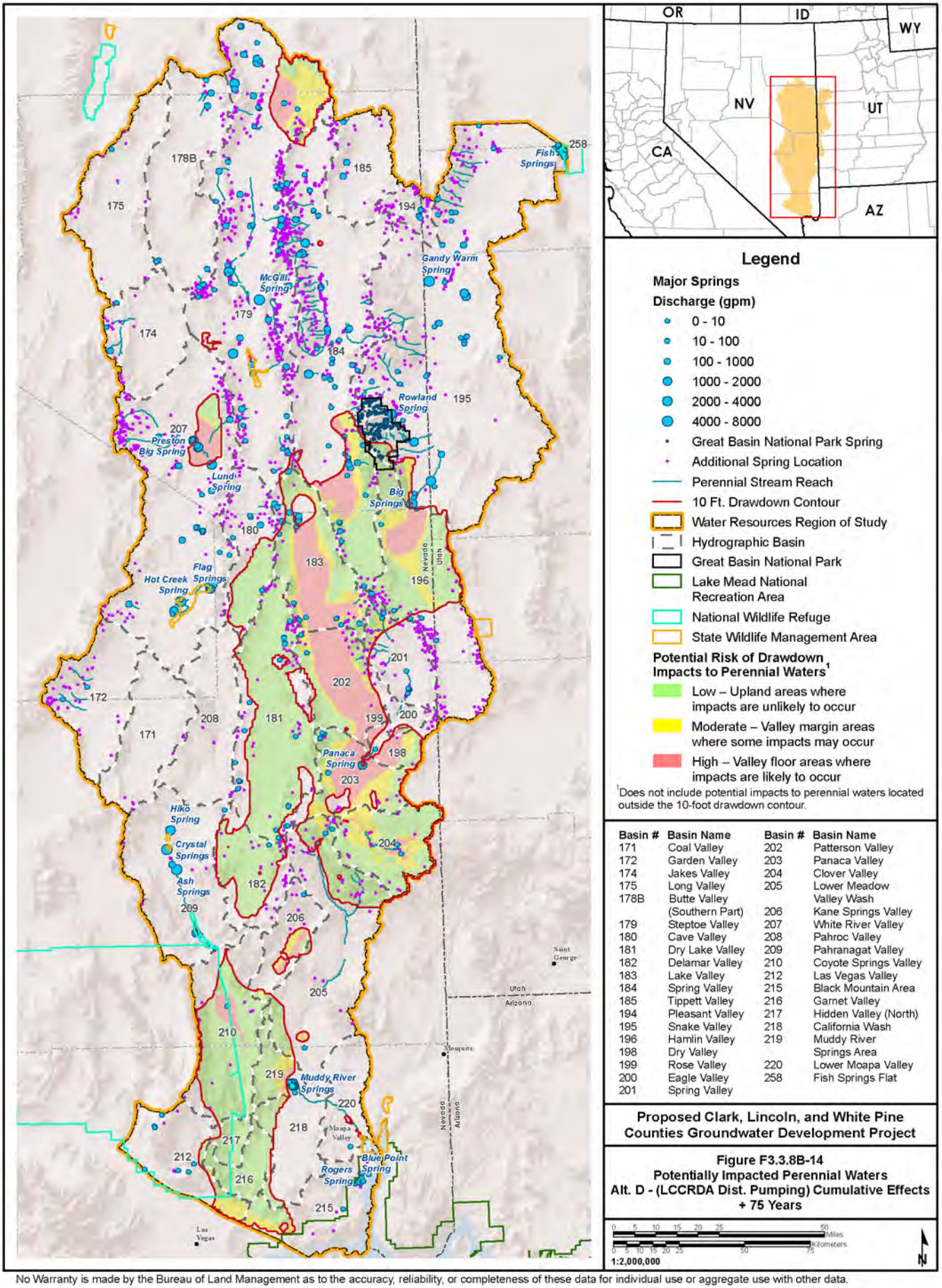

Basin #	Basin Name	Basin #	Basin Name
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172	Garden Valley	203	Panaca Valley
174	Jakes Valley	204	Clover Valley
175	Long Valley	205	Lower Meadow Valley Wash
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179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
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183	Lake Valley	212	Las Vegas Valley
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194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-14
Potentially Impacted Perennial Waters
Alt. D - (LCCRDA Dist. Pumping) Cumulative Effects + 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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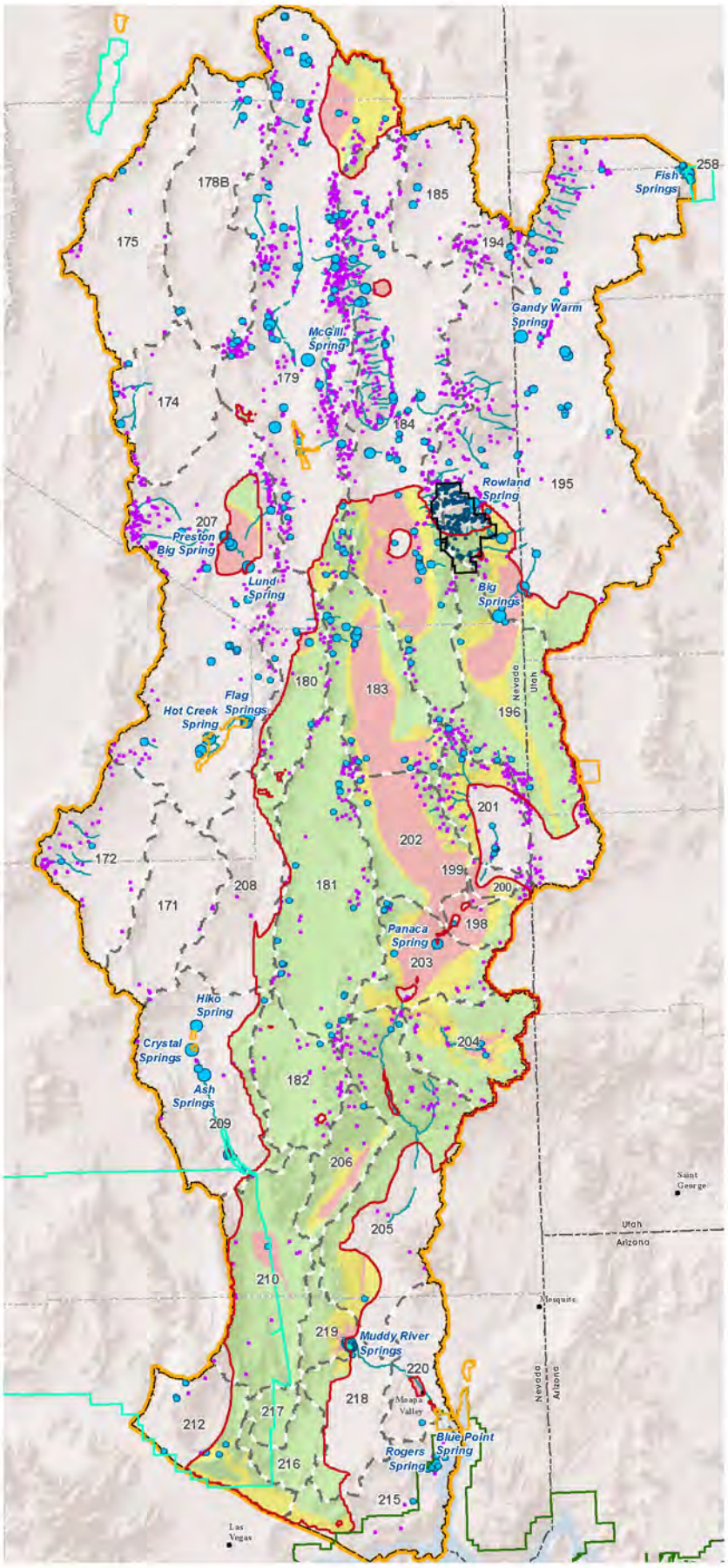

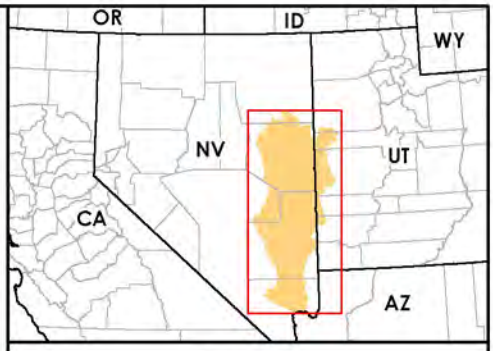

Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
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- High – Valley floor areas where impacts are likely to occur

[1]Does not include potential impacts to perennial waters located outside the 10-foot drawdown contour.

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179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-15
Potentially Impacted Perennial Waters
Alt. D - (LCCRDA Dist. Pumping) Cumulative Effects + 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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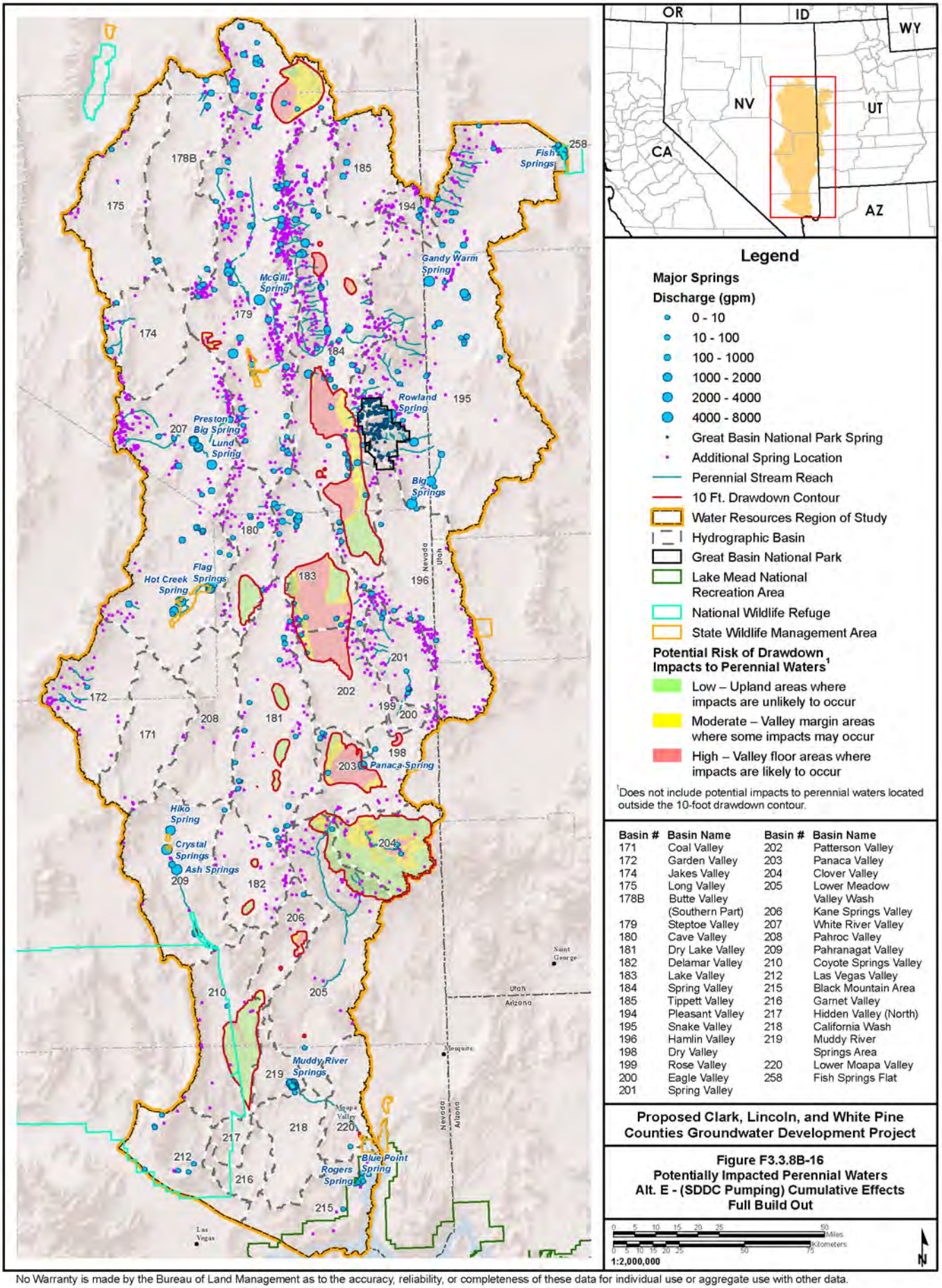

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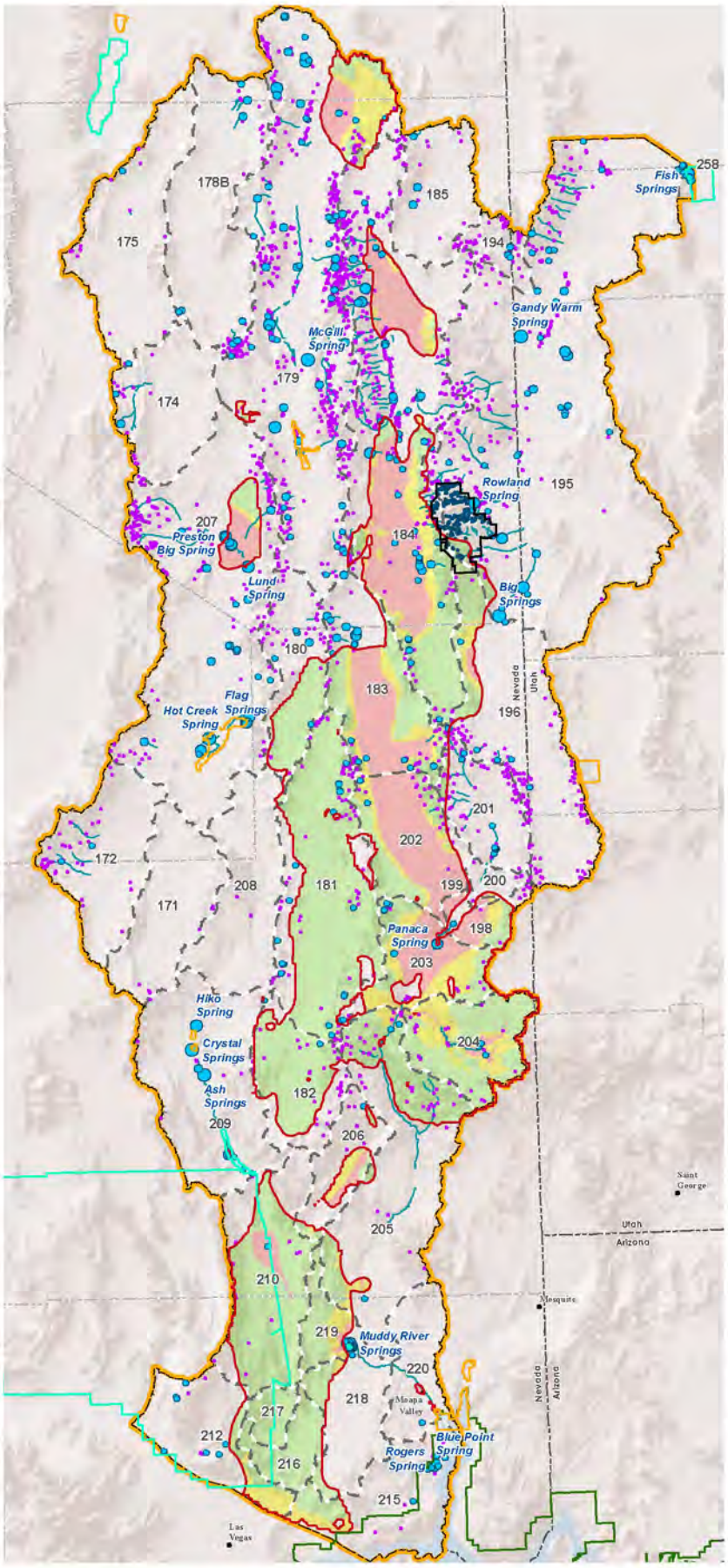

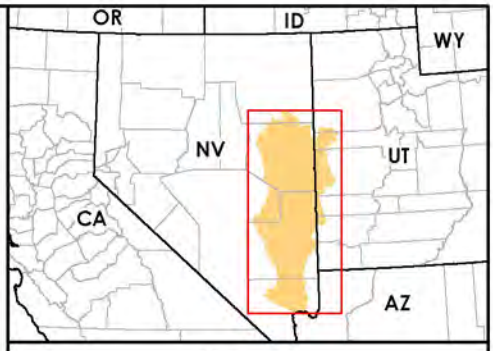

Legend

Major Springs

Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
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- High – Valley floor areas where impacts are likely to occur

[1]Does not include potential impacts to perennial waters located outside the 10-foot drawdown contour.

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194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
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198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-17
Potentially Impacted Perennial Waters
Alt. E - (SDDC Pumping) Cumulative Effects
+ 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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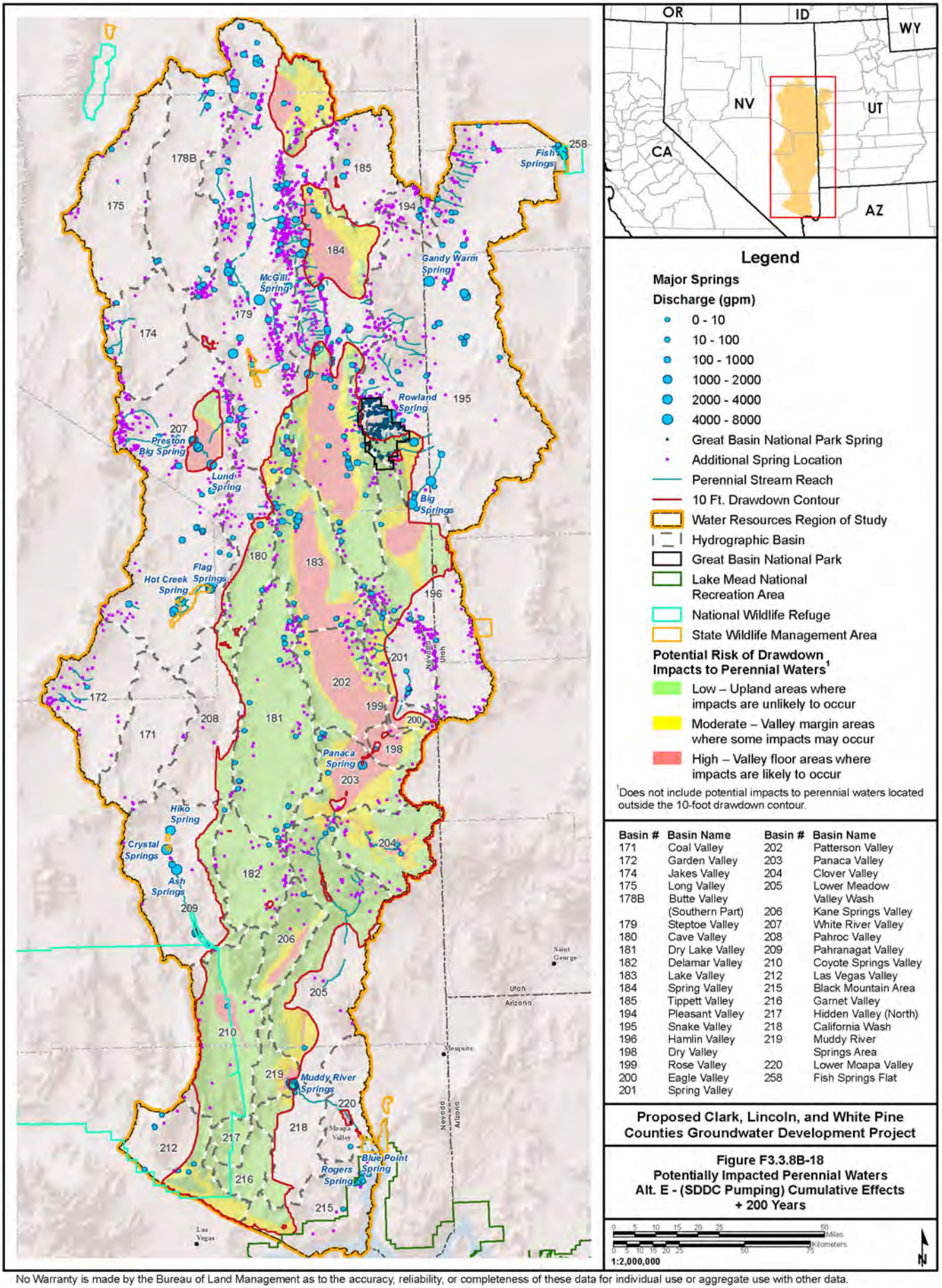

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182	Delamar Valley	210	Coyote Springs Valley
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184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-18
Potentially Impacted Perennial Waters
Alt. E - (SDDC Pumping) Cumulative Effects + 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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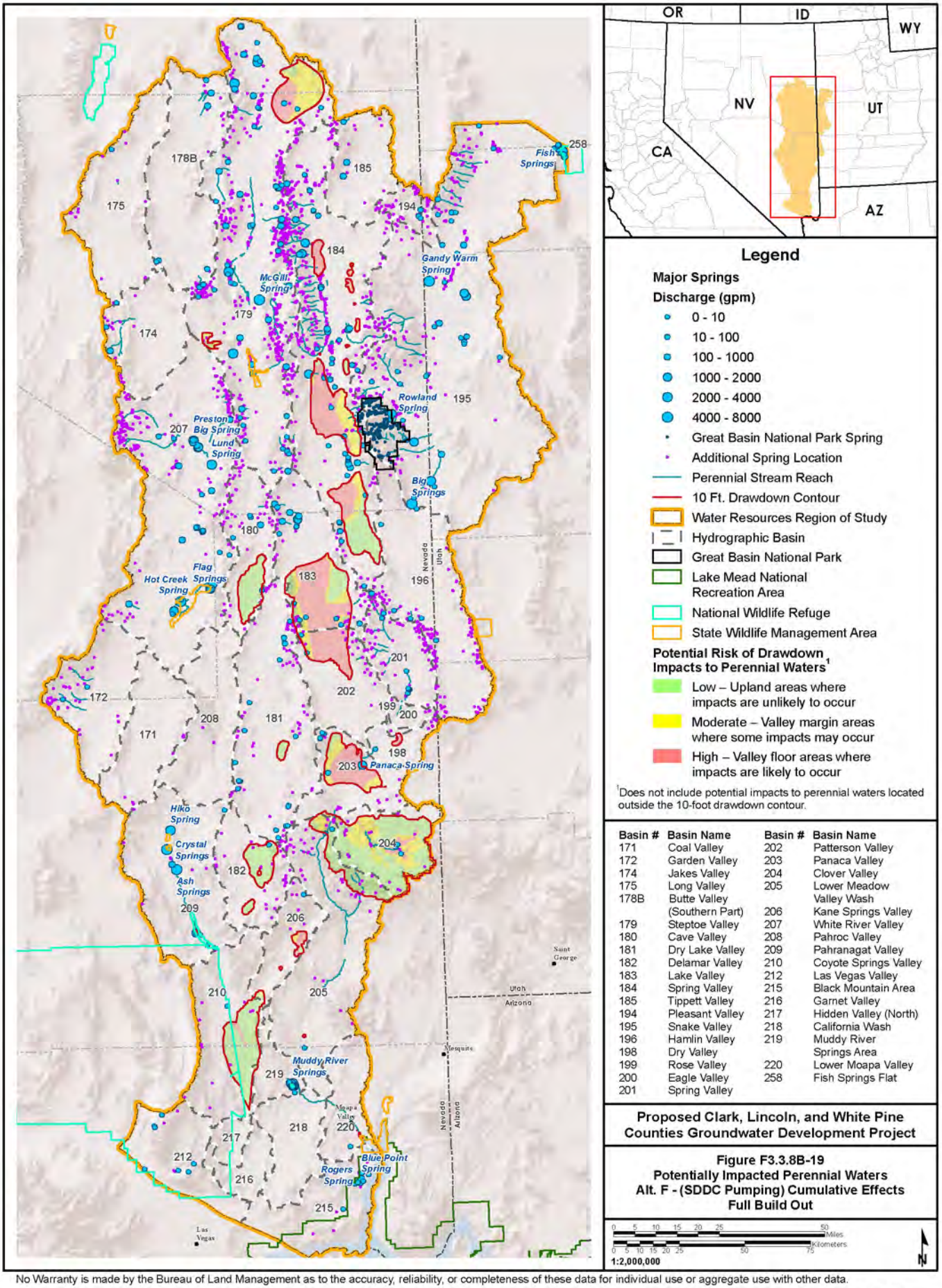

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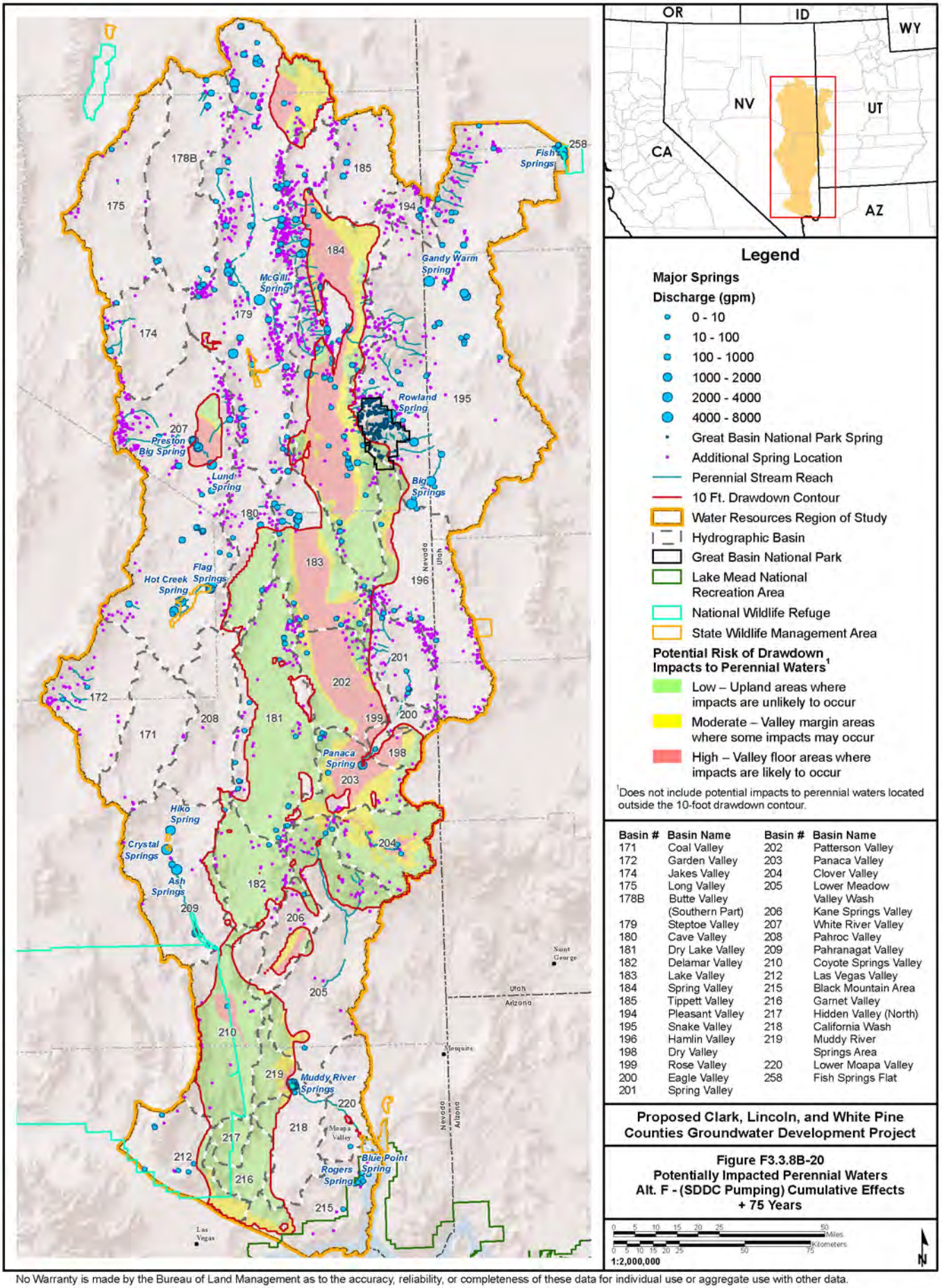
179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
182	Delamar Valley	210	Coyote Springs Valley
183	Lake Valley	212	Las Vegas Valley
184	Spring Valley	215	Black Mountain Area
185	Tippett Valley	216	Garnet Valley
194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-19
Potentially Impacted Perennial Waters
Alt. F - (SDDC Pumping) Cumulative Effects
Full Build Out

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.



Basin #	Basin Name	Basin #	Basin Name
171	Coal Valley	202	Patterson Valley
172	Garden Valley	203	Panaca Valley
174	Jakes Valley	204	Clover Valley
175	Long Valley	205	Lower Meadow Valley Wash
178B	Butte Valley (Southern Part)	206	Kane Springs Valley
179	Steptoe Valley	207	White River Valley
180	Cave Valley	208	Pahroc Valley
181	Dry Lake Valley	209	Pahranagat Valley
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200	Eagle Valley		
201	Spring Valley		

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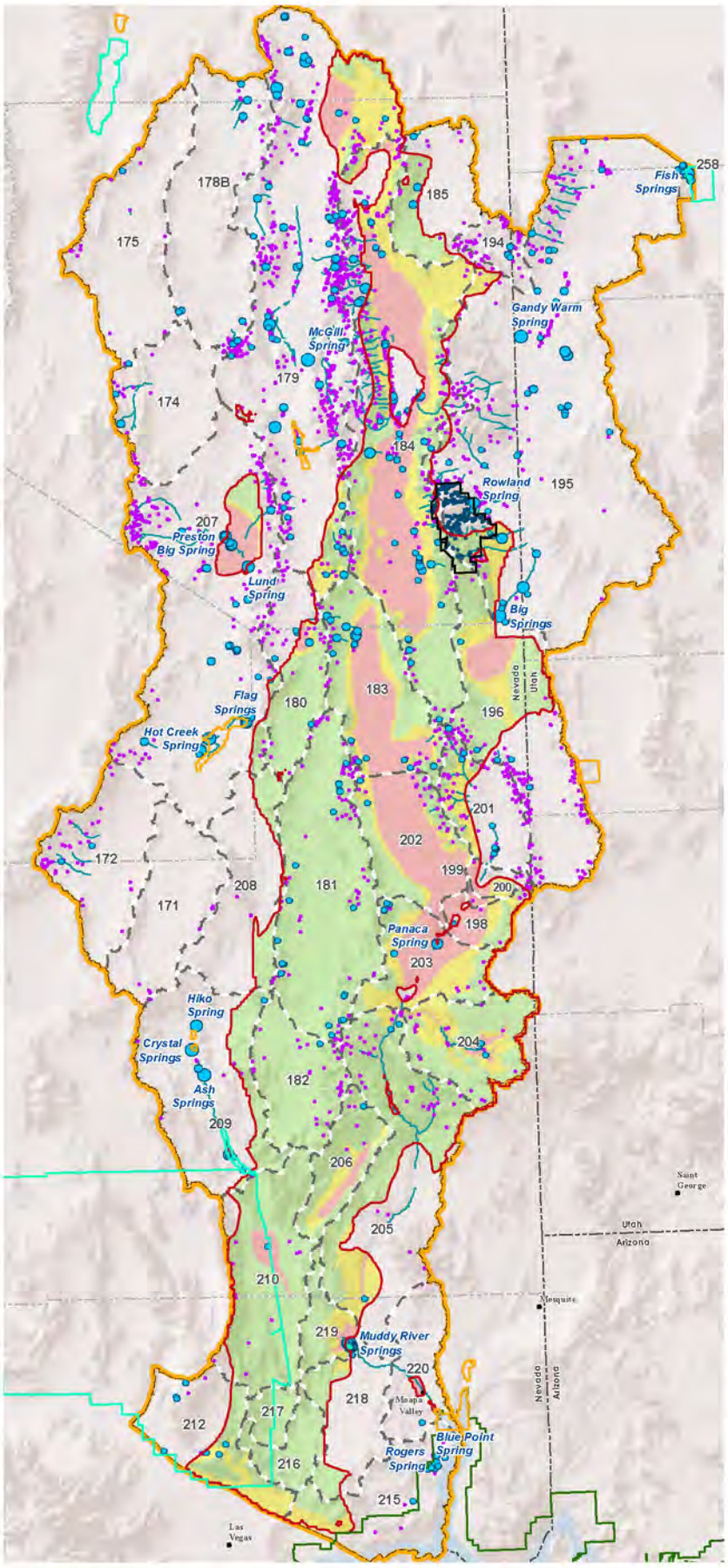

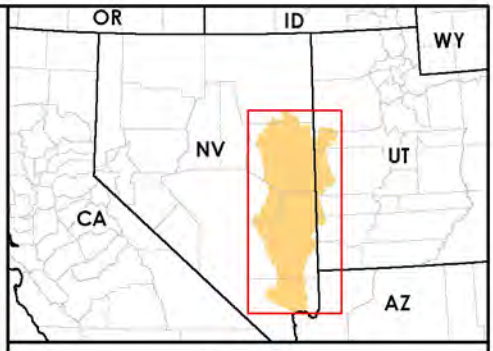

Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
- Great Basin National Park
- Lake Mead National Recreation Area
- National Wildlife Refuge
- State Wildlife Management Area

Potential Risk of Drawdown Impacts to Perennial Waters[1]

- Low – Upland areas where impacts are unlikely to occur
- Moderate – Valley margin areas where some impacts may occur
- High – Valley floor areas where impacts are likely to occur

[1]Does not include potential impacts to perennial waters located outside the 10-foot drawdown contour.

Basin #	Basin Name	Basin #	Basin Name
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180	Cave Valley	208	Pahroc Valley
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195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

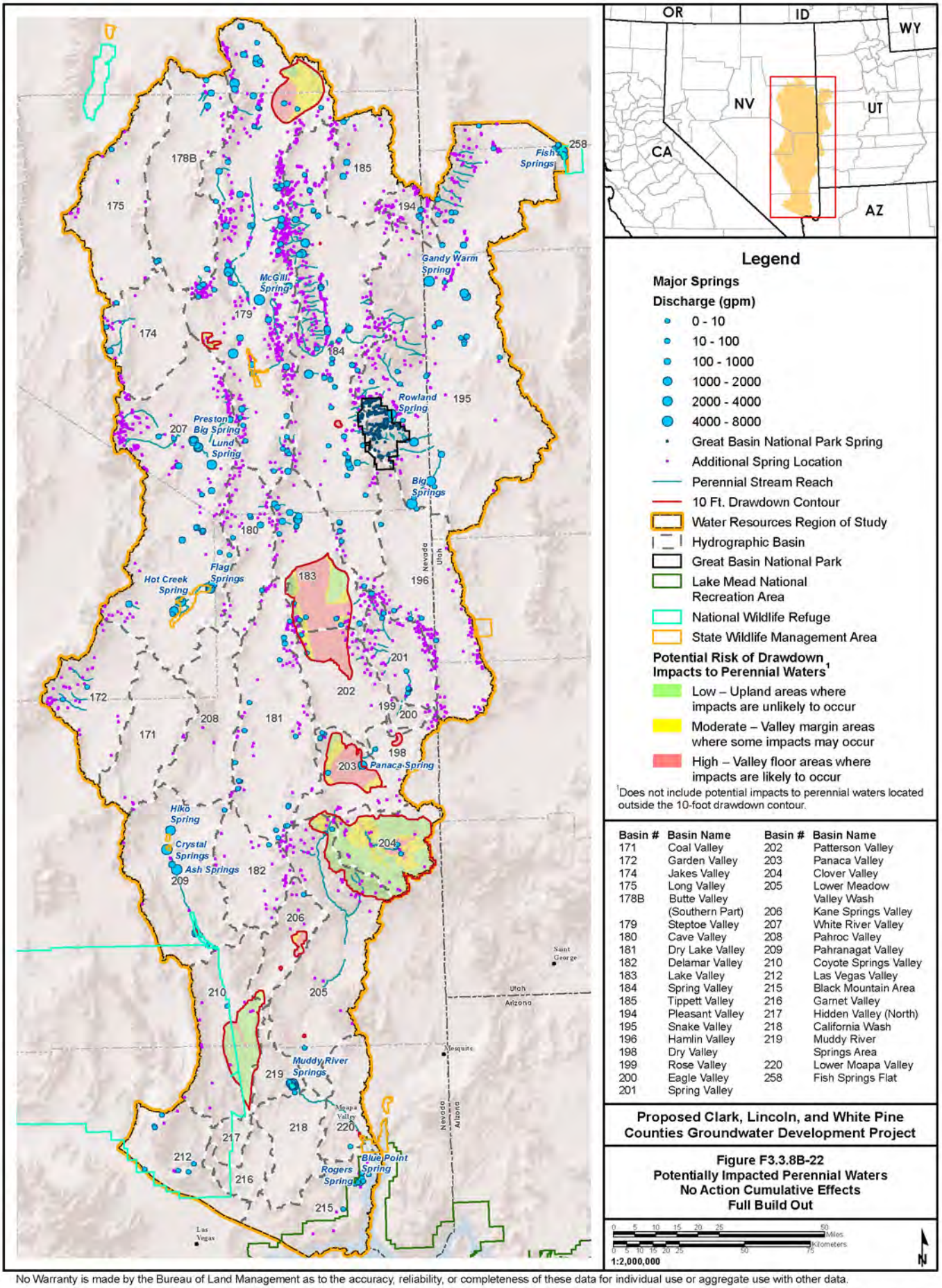
Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-21
Potentially Impacted Perennial Waters
Alt. F - (SDDC Pumping) Cumulative Effects + 200 Years

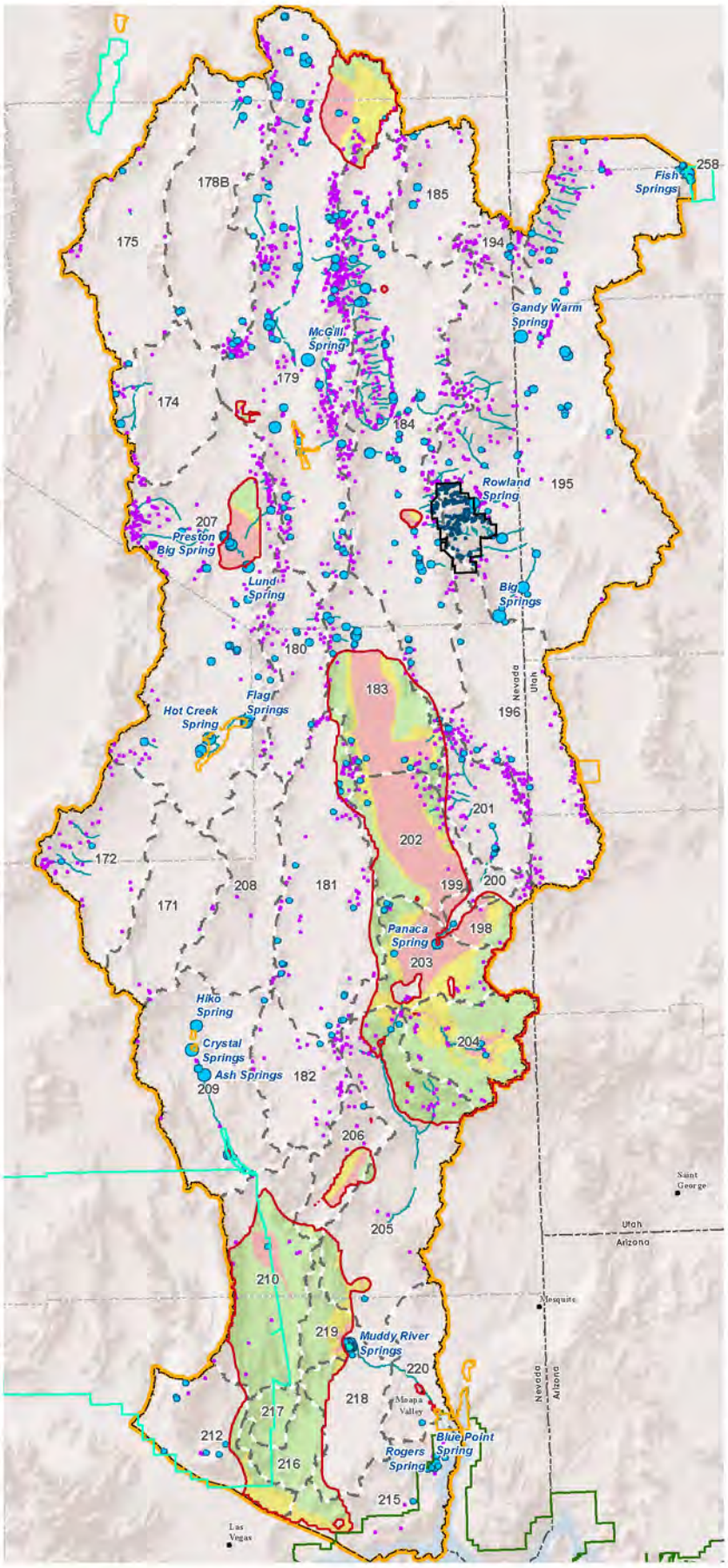
0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

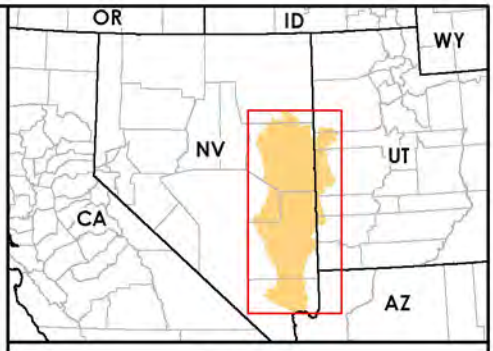
N

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.



No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.





Legend

Major Springs
Discharge (gpm)

- 0 - 10
- 10 - 100
- 100 - 1000
- 1000 - 2000
- 2000 - 4000
- 4000 - 8000
- Great Basin National Park Spring
- Additional Spring Location
- Perennial Stream Reach
- 10 Ft. Drawdown Contour
- Water Resources Region of Study
- Hydrographic Basin
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- National Wildlife Refuge
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194	Pleasant Valley	217	Hidden Valley (North)
195	Snake Valley	218	California Wash
196	Hamlin Valley	219	Muddy River Springs Area
198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-23
Potentially Impacted Perennial Waters
No Action Cumulative Effects
+ 75 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000

N

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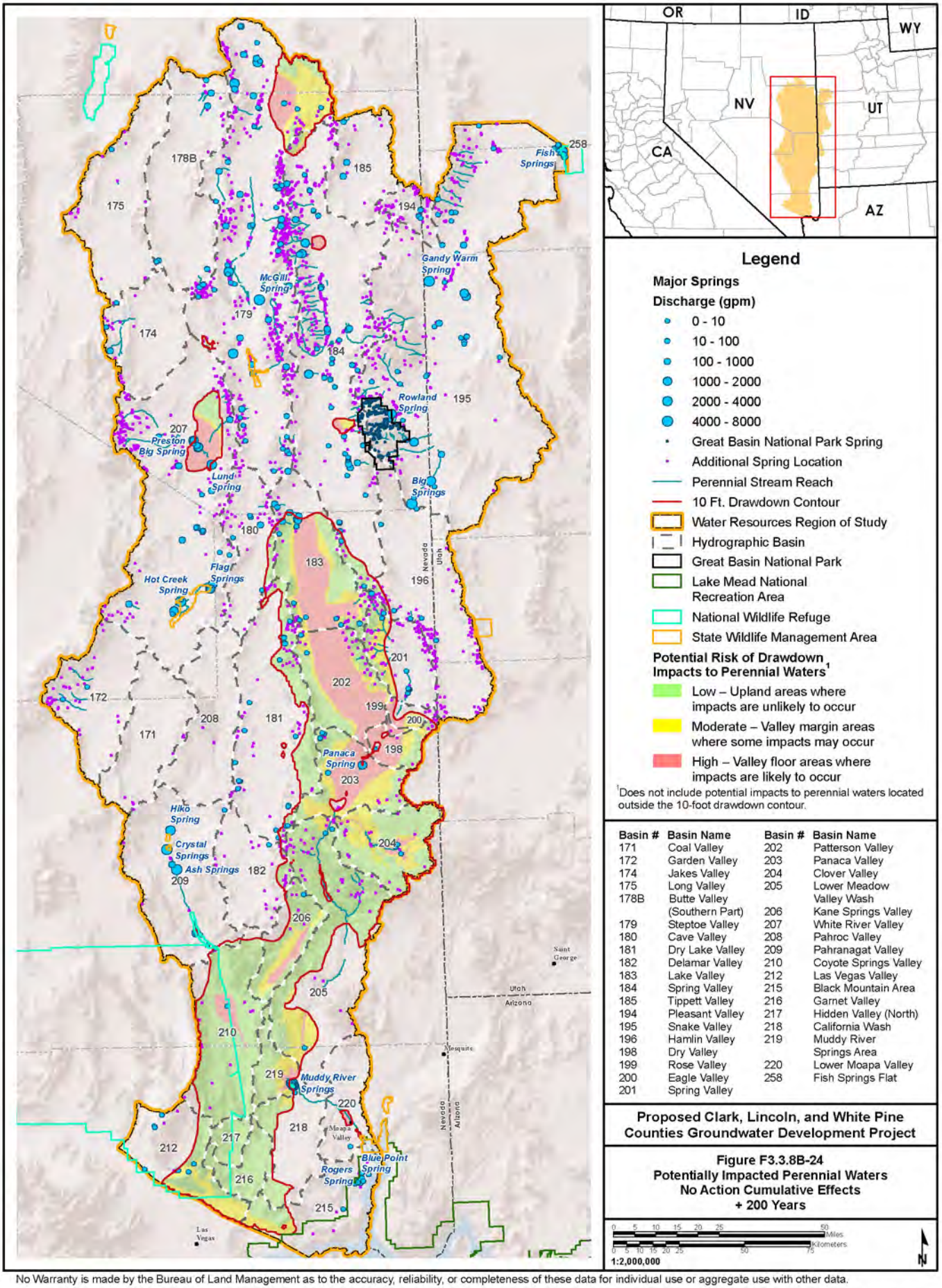

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198	Dry Valley	220	Lower Moapa Valley
199	Rose Valley	258	Fish Springs Flat
200	Eagle Valley		
201	Spring Valley		

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure F3.3.8B-24
Potentially Impacted Perennial Waters
No Action Cumulative Effects
+ 200 Years

0 5 10 15 20 25 50 Miles
0 5 10 15 20 25 50 75 Kilometers
1:2,000,000
N

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