Spring, Cave, Dry Lake and Delamar Valleys

SOUTHERN NEVADA
WATER AUTHORITY

Presentation For:

Zane Marshall and Lisa Luptowitz Testimony

Table 4-1 Baseline Biological Investigation (Page 1 of 7)

Survey Type	Biota of Focus	Purpose of Study	Habitat	Who	When	Study Location(s)
Aerial imagery		Collection of six-inch aerial imagery used to support biological and hydrologic efforts	Springs, Ponds, Perennial Streams, Wetlands, Meadows, Phreatophytic Shrubland, Phreatophytic Woodland, Playa, Non-Groundwater Influenced Habitats	SNWA contractor (Digital Mapping Inc.) and SNWA	2007, 2009	Spring, Hamlin, Snake, Cave, White River and Pahranagat
Amphibians	Frogs	Annual population survey as part of the Conservation Agreement and Strategy for Columbia spotted frog	Springs, Ponds, Wetlands	UDWR with SNWA assistance	2006, 2009, 2010	Snake
Amphibians	Frogs and toads	Survey for amphibian occurrence and potential habitat; baseline data for BA and EIS	Springs, Wetlands	SNWA	2007	Spring, Snake and Hamlin
Amphibians	Northern leopard frog	Surveys to determine northern leopard frog distribution, breeding areas and potential habitat; to inform conservation, management, and mitigation on SNWA Northern Resources property; to support Spring Valley Stipulation Biological Monitoring Plan efforts; baseline data for BA and EIS	Springs, Ponds, Wetlands	SNWA	2008-2009	Spring and Snake
Animals	Sensitive animals	Sensitive animal survey within and adjacent to proposed Rights of Way and within groundwater exploratory areas; baseline data for EIS	Non-Groundwater Influenced Habitats, Phreatophytic Shrubland, Playa	SNWA contractors (Wildland Intl, Jones & Stokes)	2005-2007, 2009	Las Vegas, Garnet, Hidden (North), Coyote Spring, Pah-ranagat, Delamar, Dry Lake, Cave, Lake, Spring, Steptoe, Hamlin and Snake

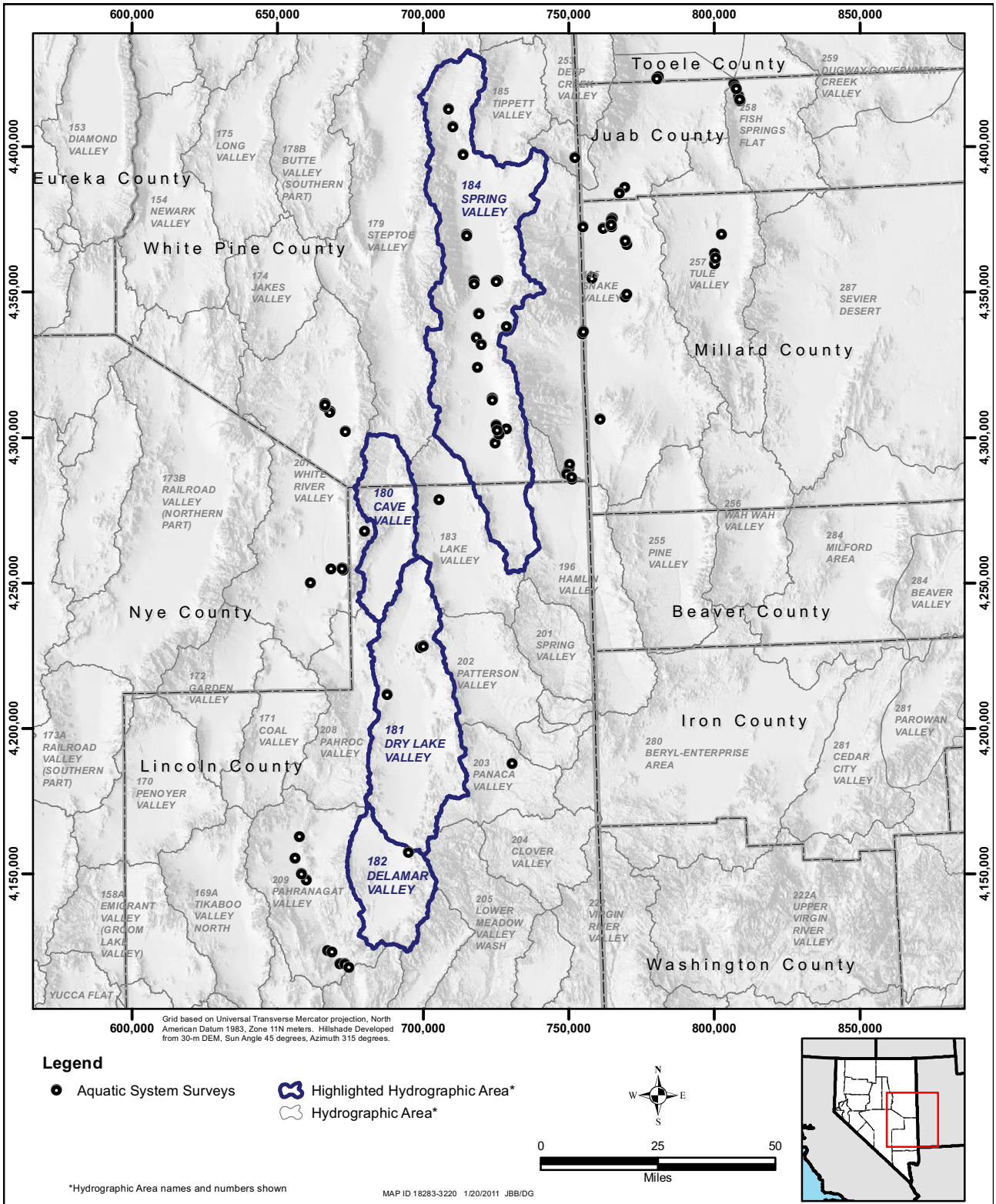


Figure 4-2
Ecological Evaluation Sites

SNWA Exhibit 363

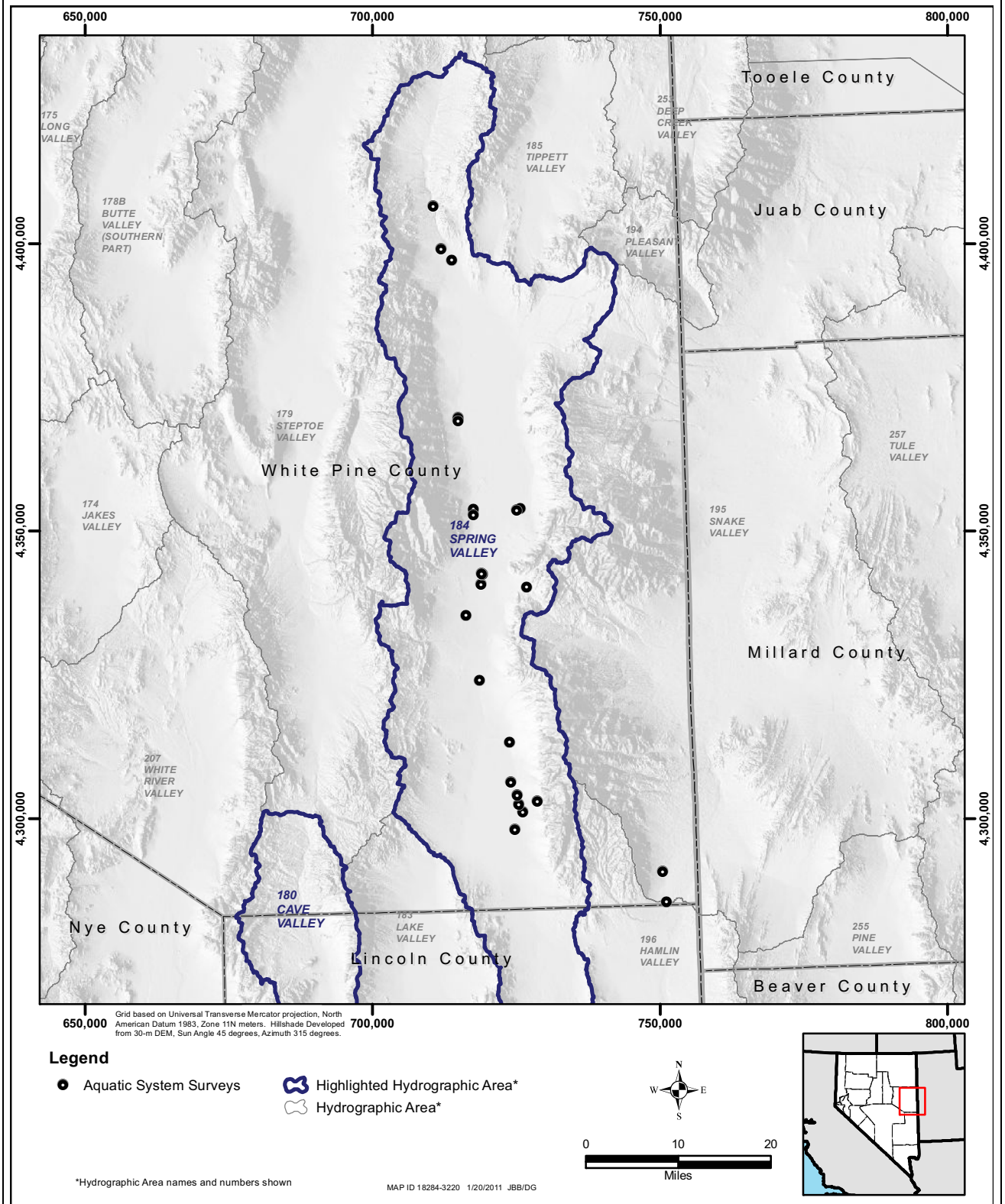
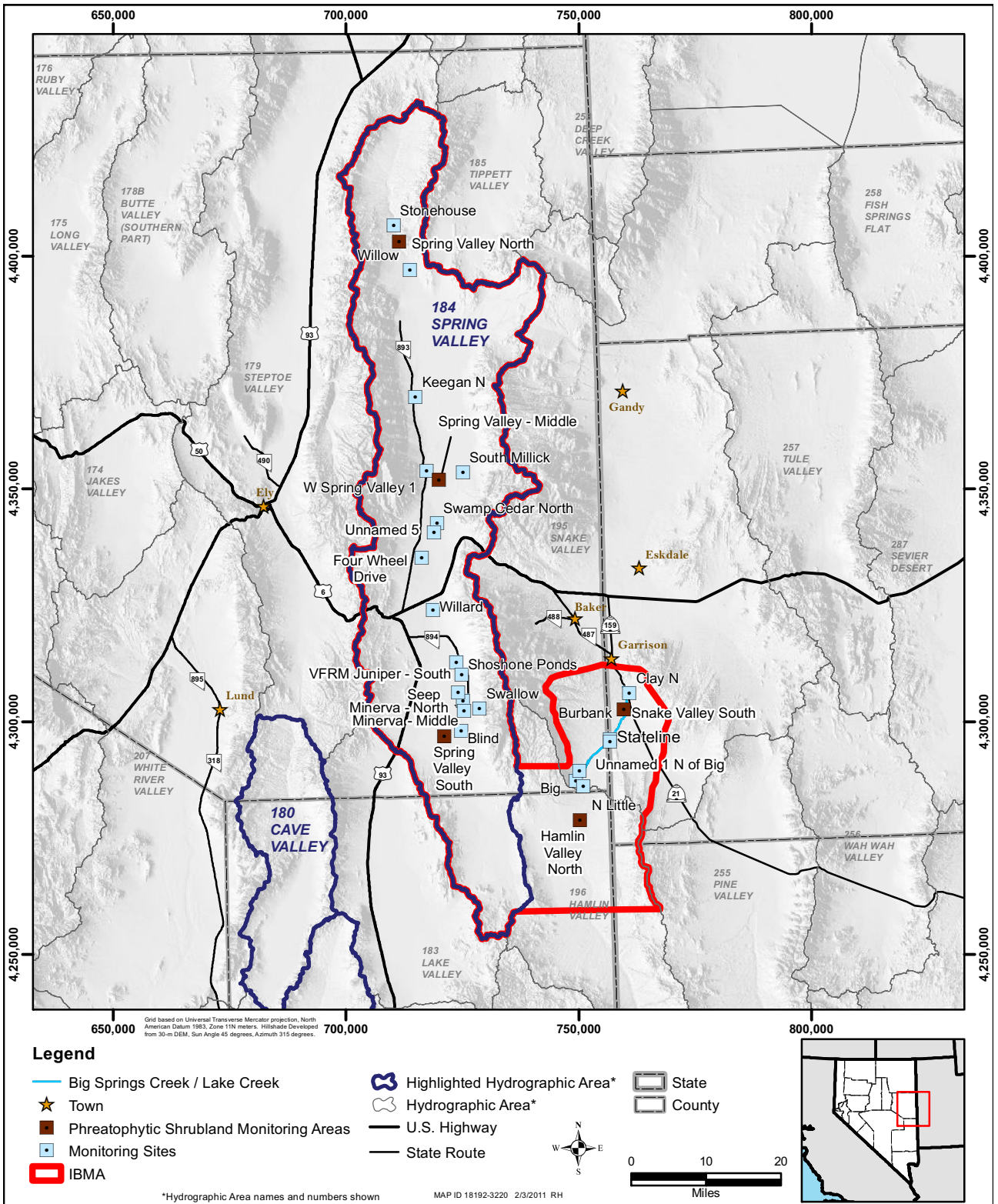


Figure 4-3
Aquatic Ecosystems Site Evaluations

SNWA Exhibit 363



SNWA Exhibit 363

Figure 3-2

Biological Monitoring Sites in the IBMA, Spring Valley Stipulation

Springsnail Counts and Habitat Ranges, Spring Valley Stipulation Biological Monitoring Data Summary, 2009 and 2010

Hydrographic Basin Site	Water Temp. (°F)[a]	Specific Conductivity (µS/cm)[a]	pH [a]	Dissolved Oxygen (%)[a,b]	Water Velocity (fps)[a]	Emergent Vegetation Cover (%)[a]	Water Depth (cm)[a]	Mean Springsnail Count [c]
Spring Valley								
Minerva Spring Complex Middle	52.6 - 59.3	334 - 609	5.88 - 8.71	48 - 138	<0.1 - 1.2	0 - 100	0.5 - 32	4.9 - 7.3[d]
Minerva Spring Complex North	53.1 - 65.9	111 - 298	6.69 - 8.73	94 - 112	<0.1 - 1.0	0 - 100	1 - 13	43.6 - 52.3[d]
Stonehouse Spring Complex	45.9 - 75.5	137 - 844	6.64 - 7.79	22 - 133	<0.1 - 0.2	0 - 100	1 - 21	4.7 - 12.6[d]
West Spring Valley Complex 1	46.0 - 70.0	223 - 622	6.51 - 7.63	24 - 89	<0.1 - 3.3	0 - 100	0.5 - 13	10.1 - 29.5[d]
Willow-NV Spring	49.7 - 71.1	136 - 1082	6.99 - 8.14	35 - 100	<0.1 - 0.1	0 - 100	0.5 - 6	4.2 - 14.5[d]
Snake Valley								
Big Springs	62.7 - 67.1	349 - 413	7.07 - 8.05	42 - 80	<0.1 - 2.5	0 - 100	1 - 23	4.9 - 10.6[e, f]
Clay Spring North	56.5 - 59.7	136 - 632	7.51 - 7.97	27 - 89	<0.1 - 1.6	0 - 100	<0.1 - 45	35.3 - 62.8[e]
Stateline Springs	56.3 - 70.2	333 - 791	7.04 - 8.80	40 - 86	<0.1 - 1.4	0 - 100	0.5 - 12	2.3 - 11.1[e]
Unnamed 1 N. of Big Springs	55.1 - 70.8	72 - 649	7.25 - 8.18	31 - 119	<0.1 - 0.2	0 - 100	<0.1 - 12	20.4 - 45.4[e]
Total Range	**45.9 - 75.5**	**72 - 1082**	**5.88 - 8.80**	**22 - 138**	**<0.1 - 3.3**	**0 - 100**	**<0.1 - 45**	**2.3 - 62.8**

[a] Ranges across spring (May) & fall (Sep) 2009-2010 surveys (8:30am-4:30pm) at sample points & transects where springsnails present.

[b] Dissolved oxygen >100% = supersaturated conditions

[c] Mean springsnail count / sample point calculated for each survey (spring [May] and fall [Sep] 2009-2010); to coincide with habitat ranges, sample points included only if springsnails present. Range of these means presented in table.

[d] *Pyrgulopsis kolobensis* (Toquerville pyrg)

[e] *Pyrgulopsis anquina* (Longitudinal gland pyrg)

[f] *Pyrgulopsis peculiaris* (Bifid duct pyrg)

SNWA Exhibit 422

Environmental Evaluation of SNWA Groundwater Development in Spring, Cave Dry Lake, and Delamar Valleys


SNWA Exhibit 374

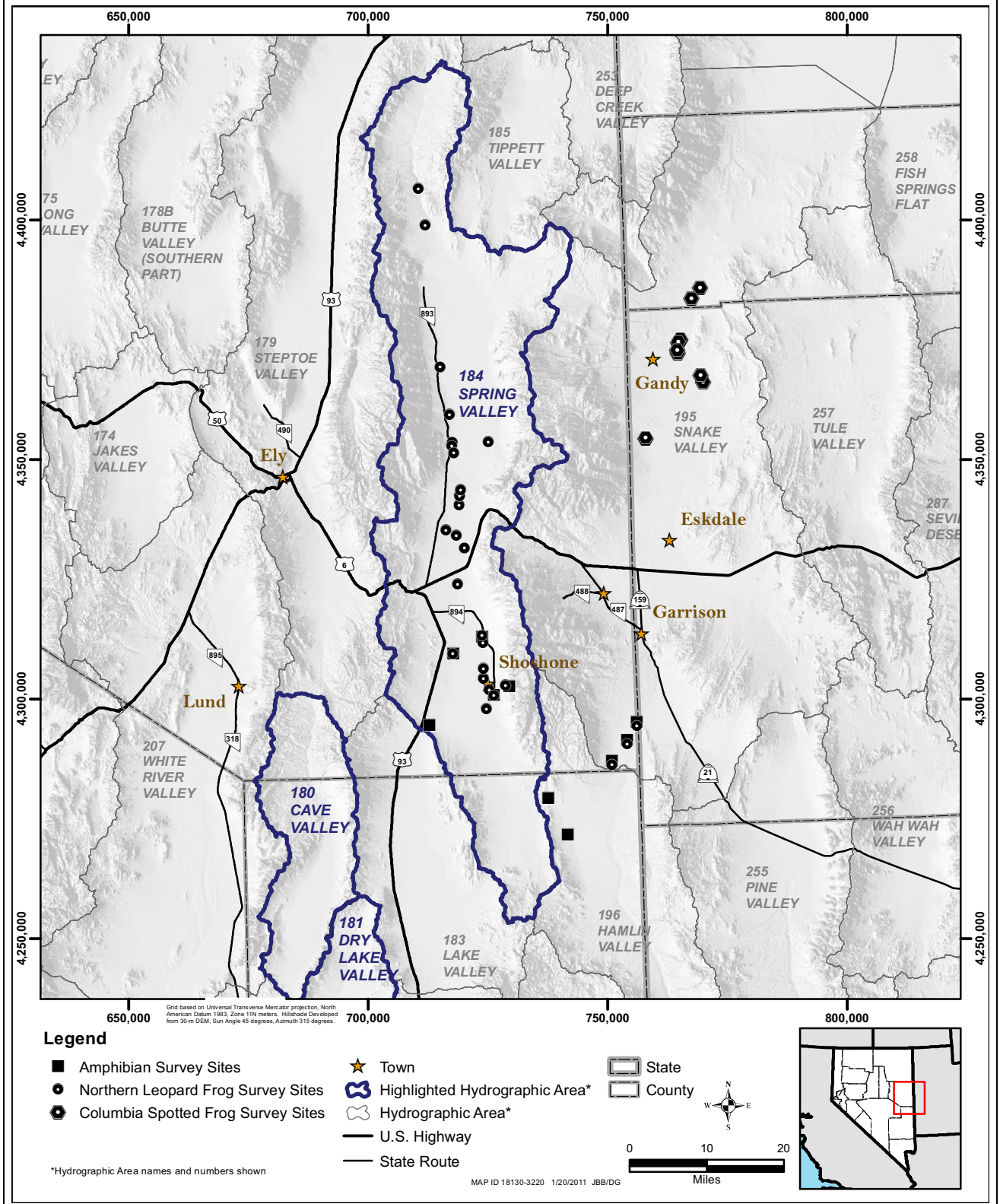


Figure 4-4
Amphibian Surveys

SNWA Exhibit 363

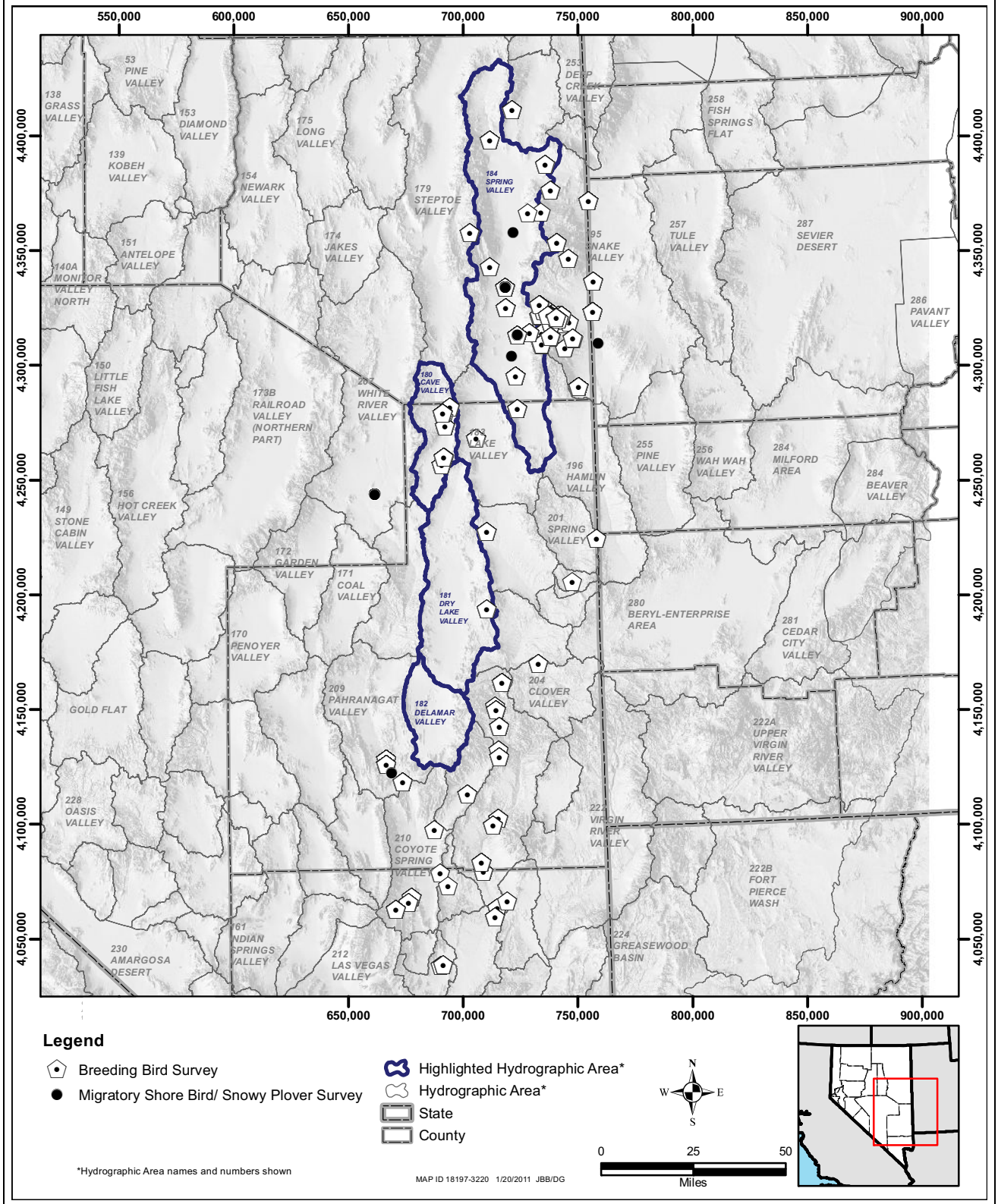


Figure 4-5
Breeding Bird, Migratory Shore Bird, and Snowy Plover Surveys

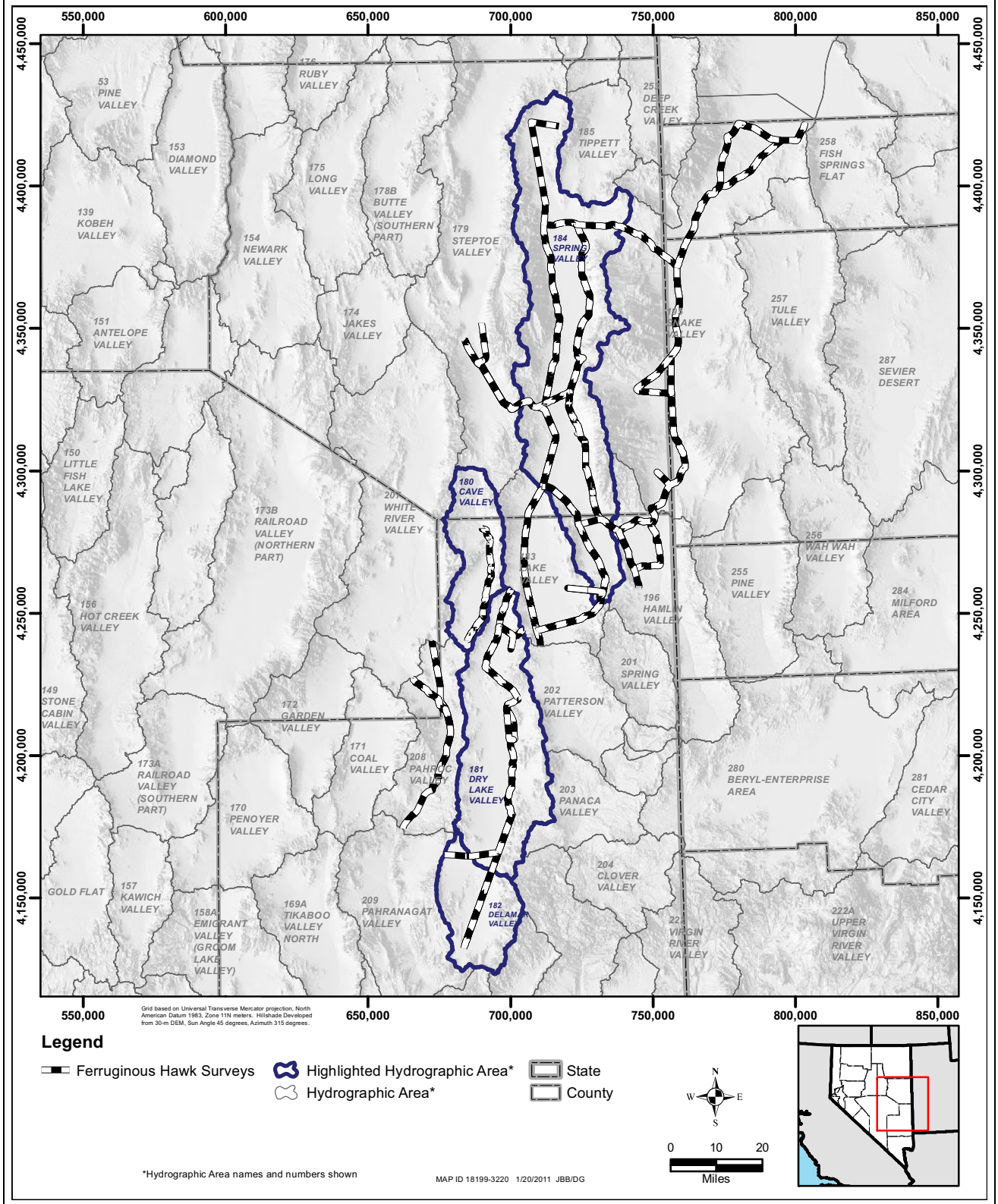


Figure 4-6
Ferruginous Hawk Survey

SNWA Exhibit 363

SNWA Exhibit 374

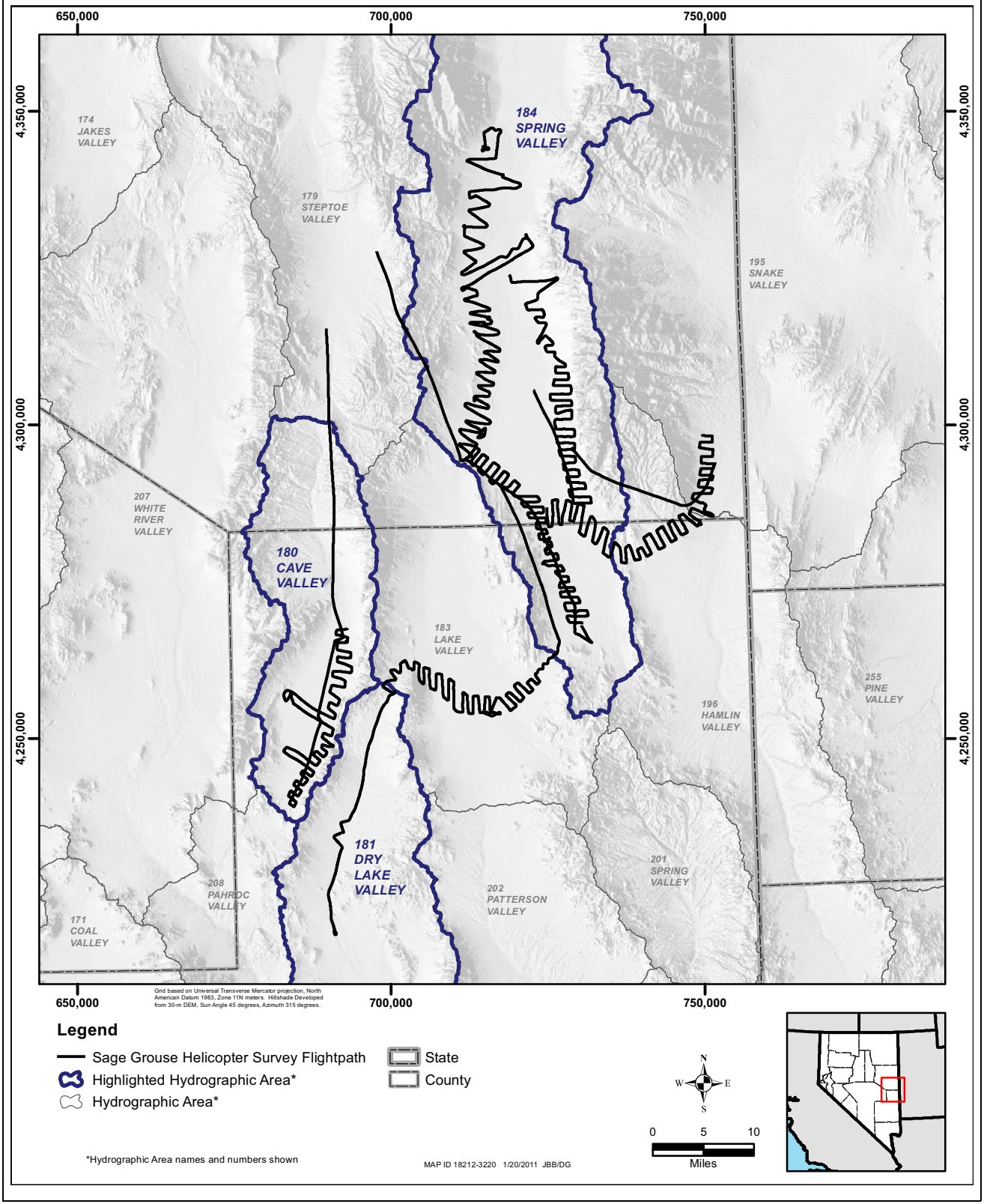


Figure 4-7
Greater Sage-Grouse Lek Surveys

SNWA Exhibit 363

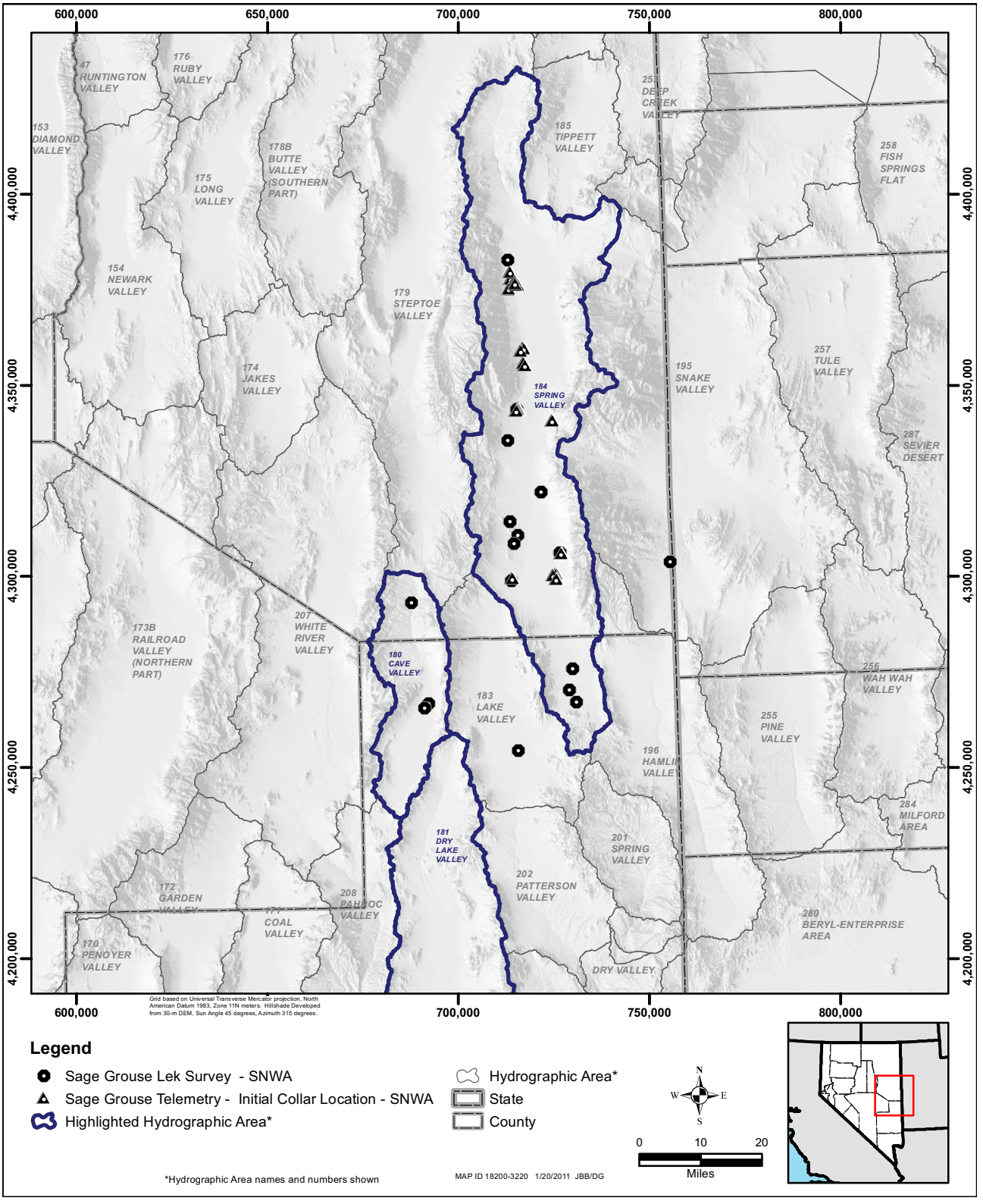


Figure 4-8
Greater Sage-Grouse Surveys

SNWA Exhibit 363

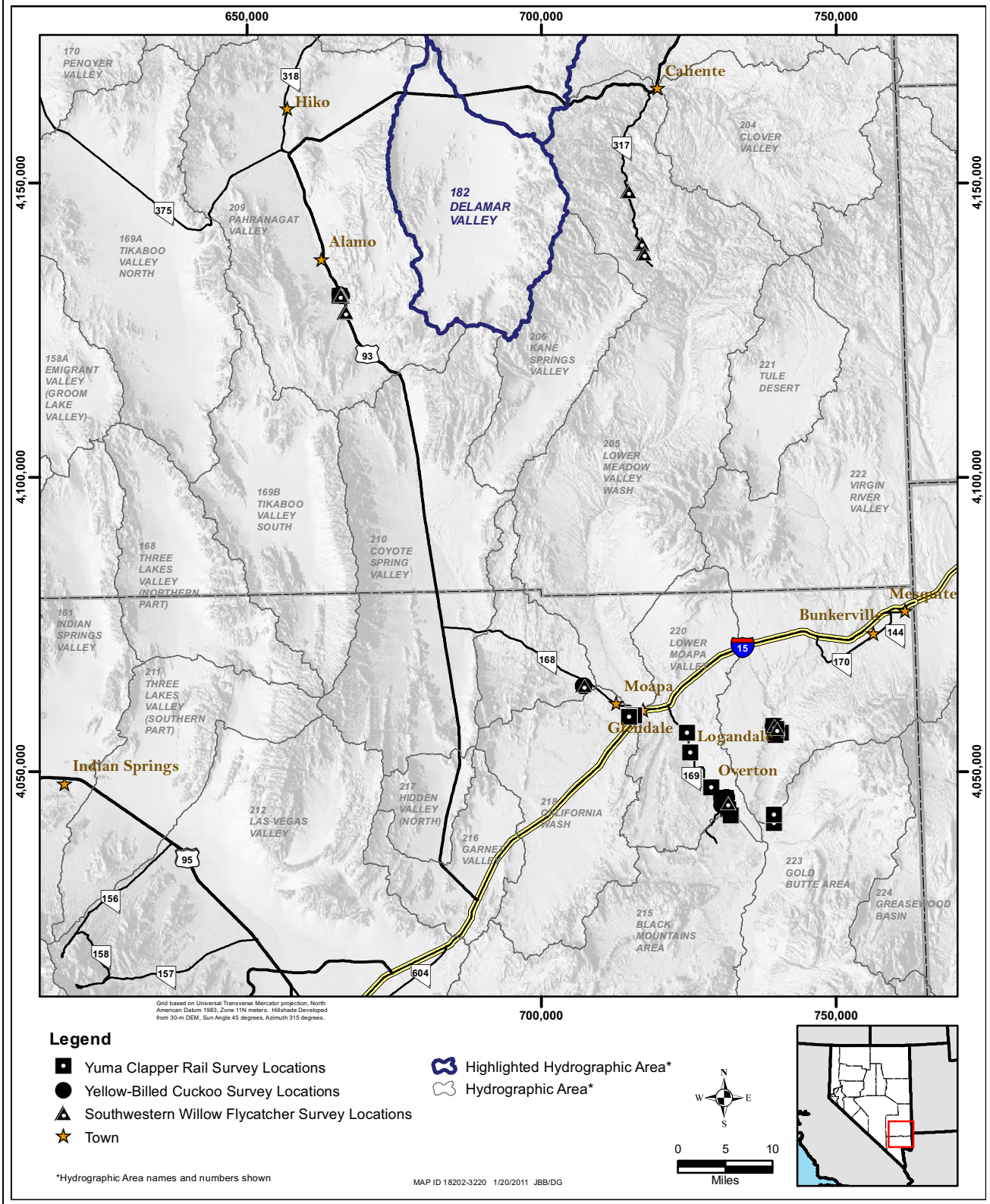


Figure 4-9
Southwestern Willow Flycatcher, WesternYellow-Billed Cuckoo, and Yuma Clapper Rail Surveys

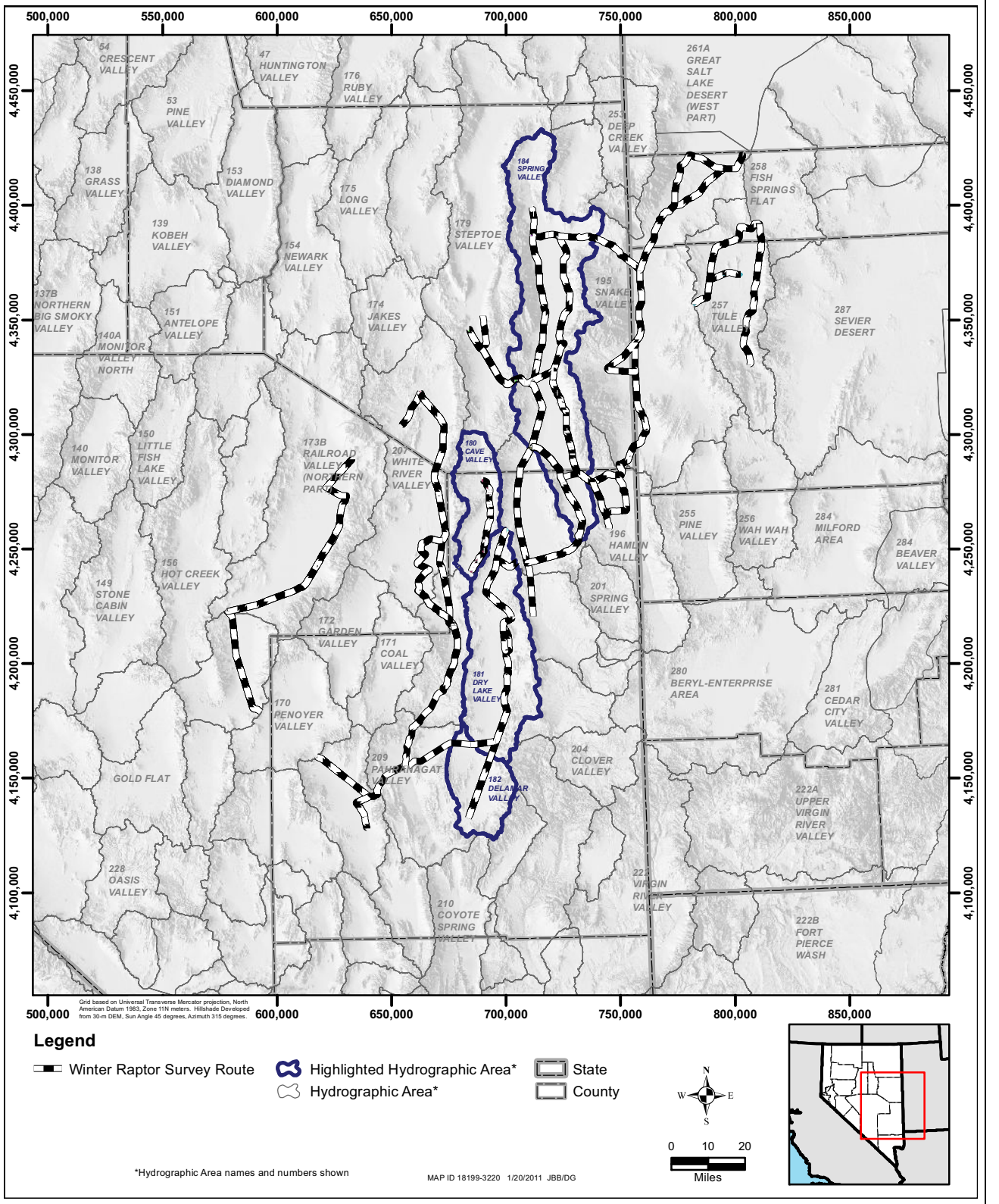


Figure 4-10
Winter Raptor Surveys

SNWA Exhibit 363

SNWA Exhibit 374

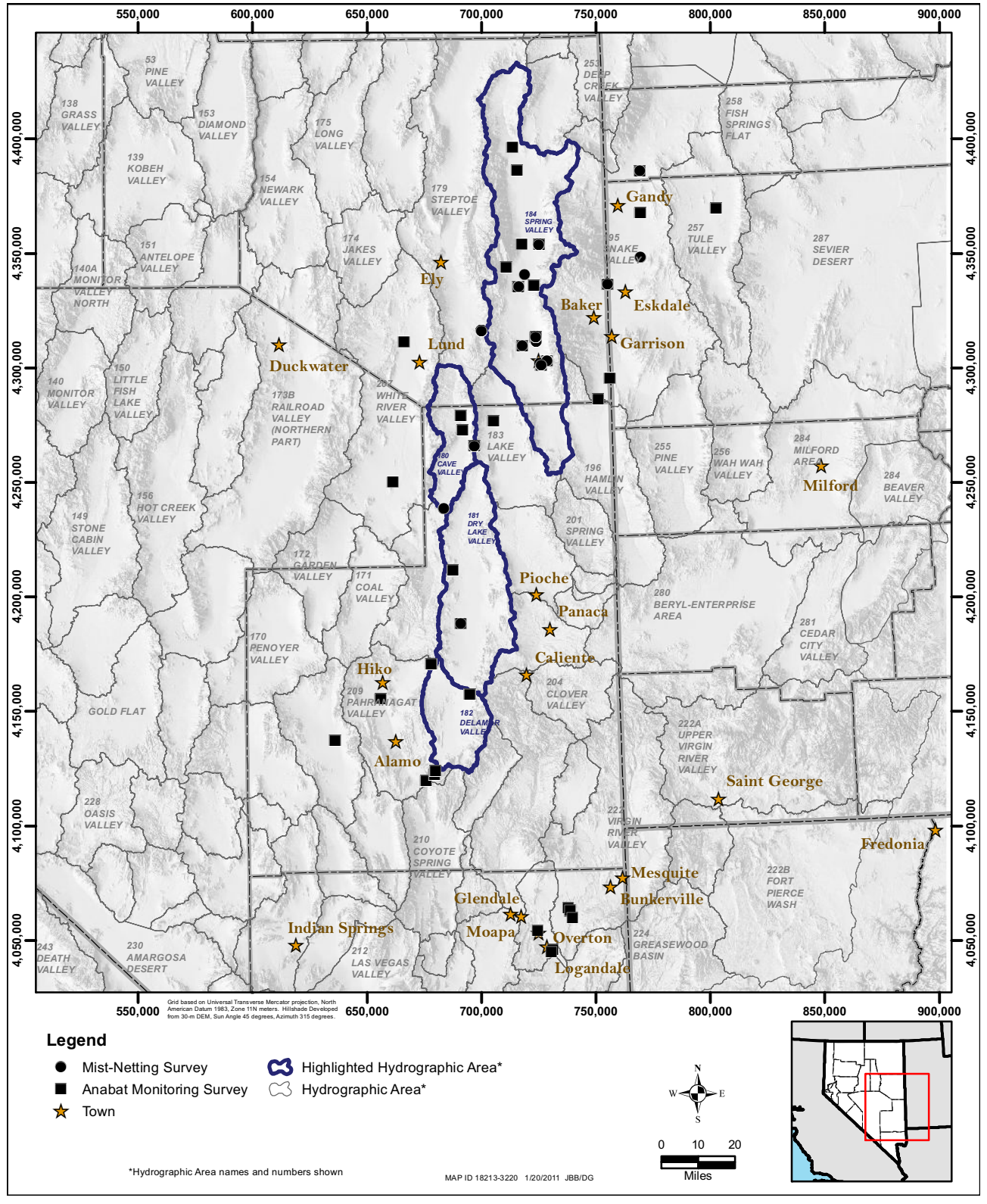


Figure 4-11
Bat Surveys

SNWA Exhibit 363


SNWA Exhibit 374

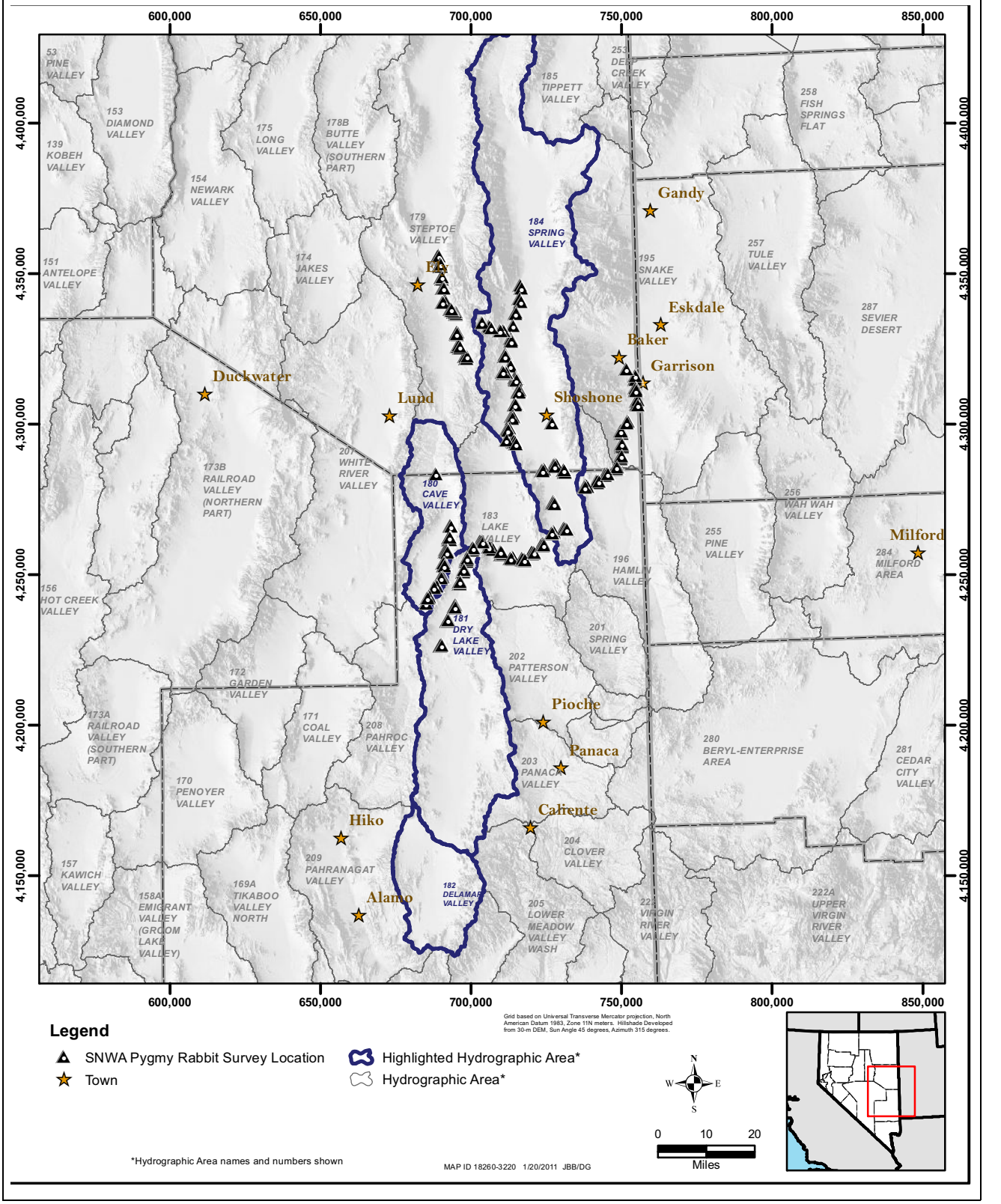


Figure 4-12
Pygmy Rabbit Surveys

SNWA Exhibit 363

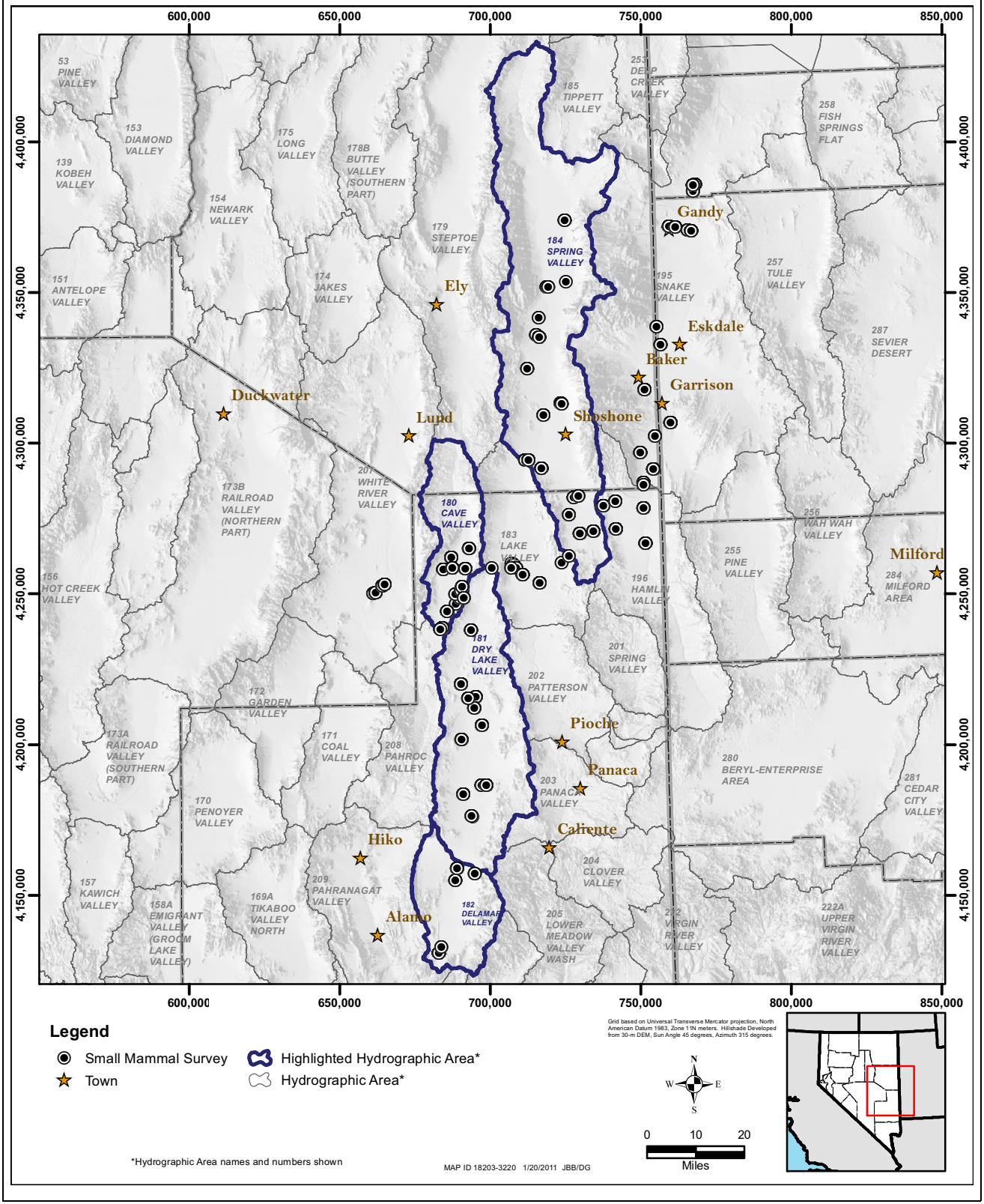


Figure 4-13
Small Mammal Surveys

SNWA Exhibit 363

SNWA Exhibit 374

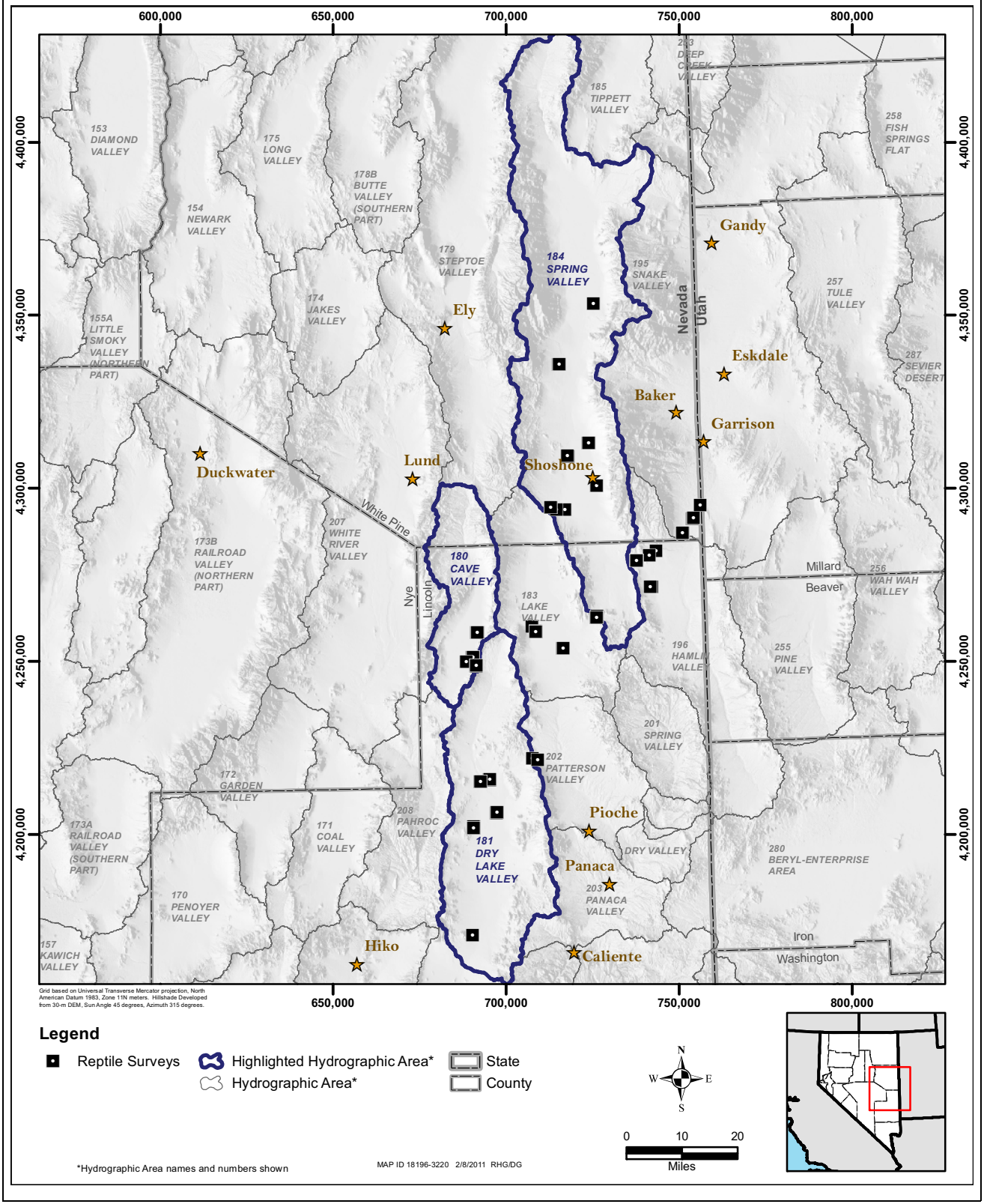


Figure 4-15
Reptile Surveys

SNWA Exhibit 363

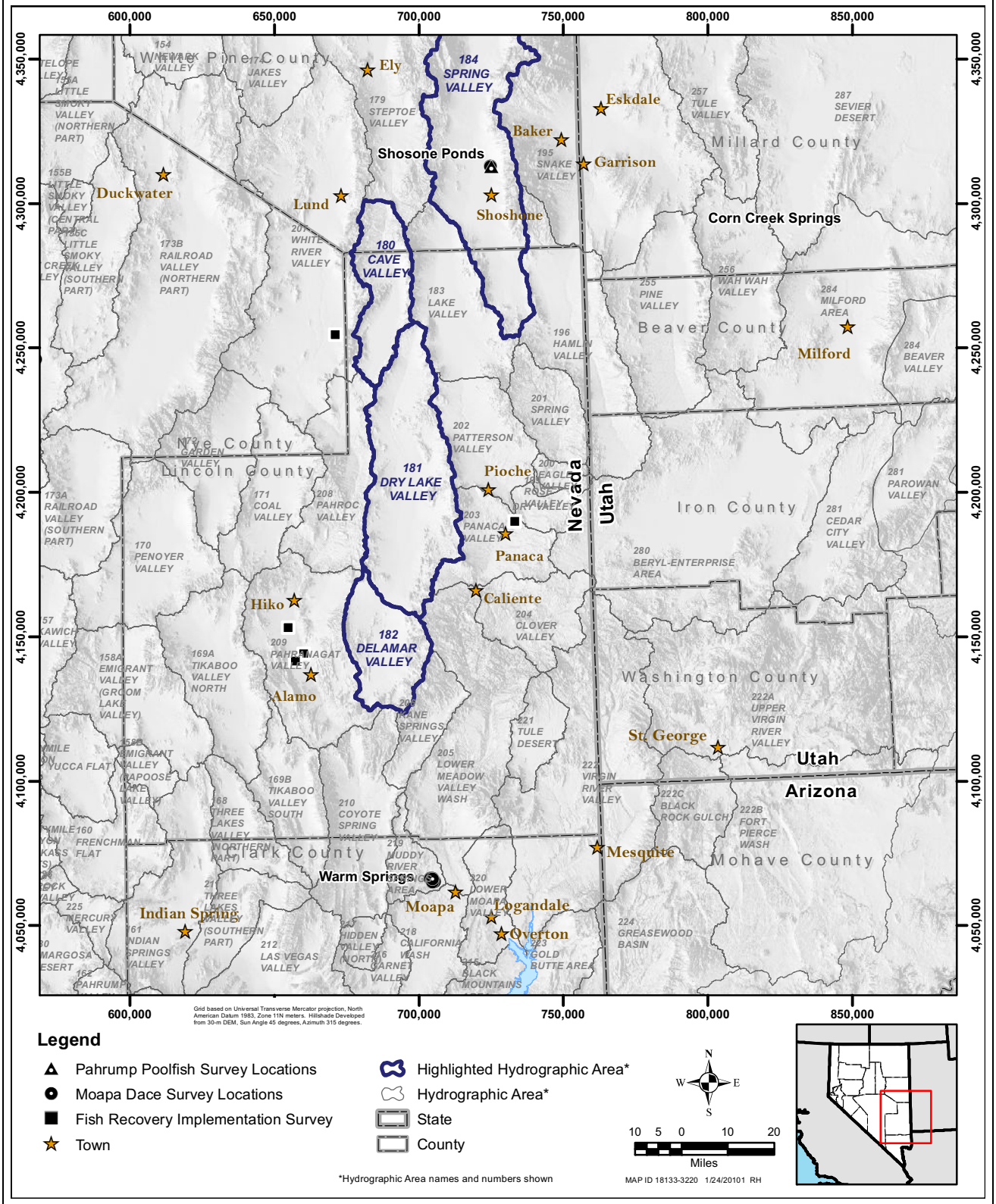


Figure 4-16
Fish Surveys

SNWA Exhibit 363

SNWA Exhibit 374

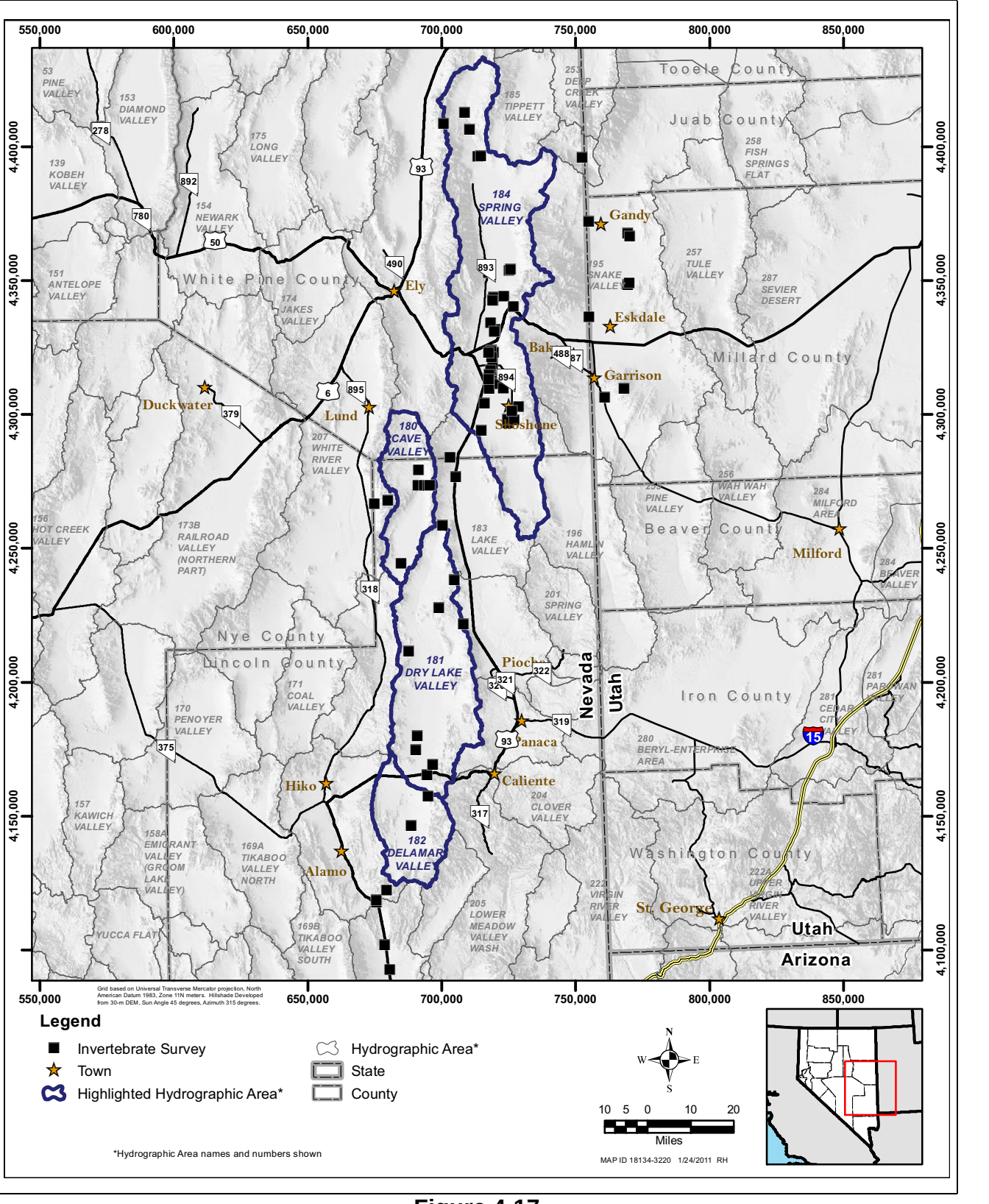


Figure 4-17
Terrestrial Invertebrate Surveys

SNWA Exhibit 363

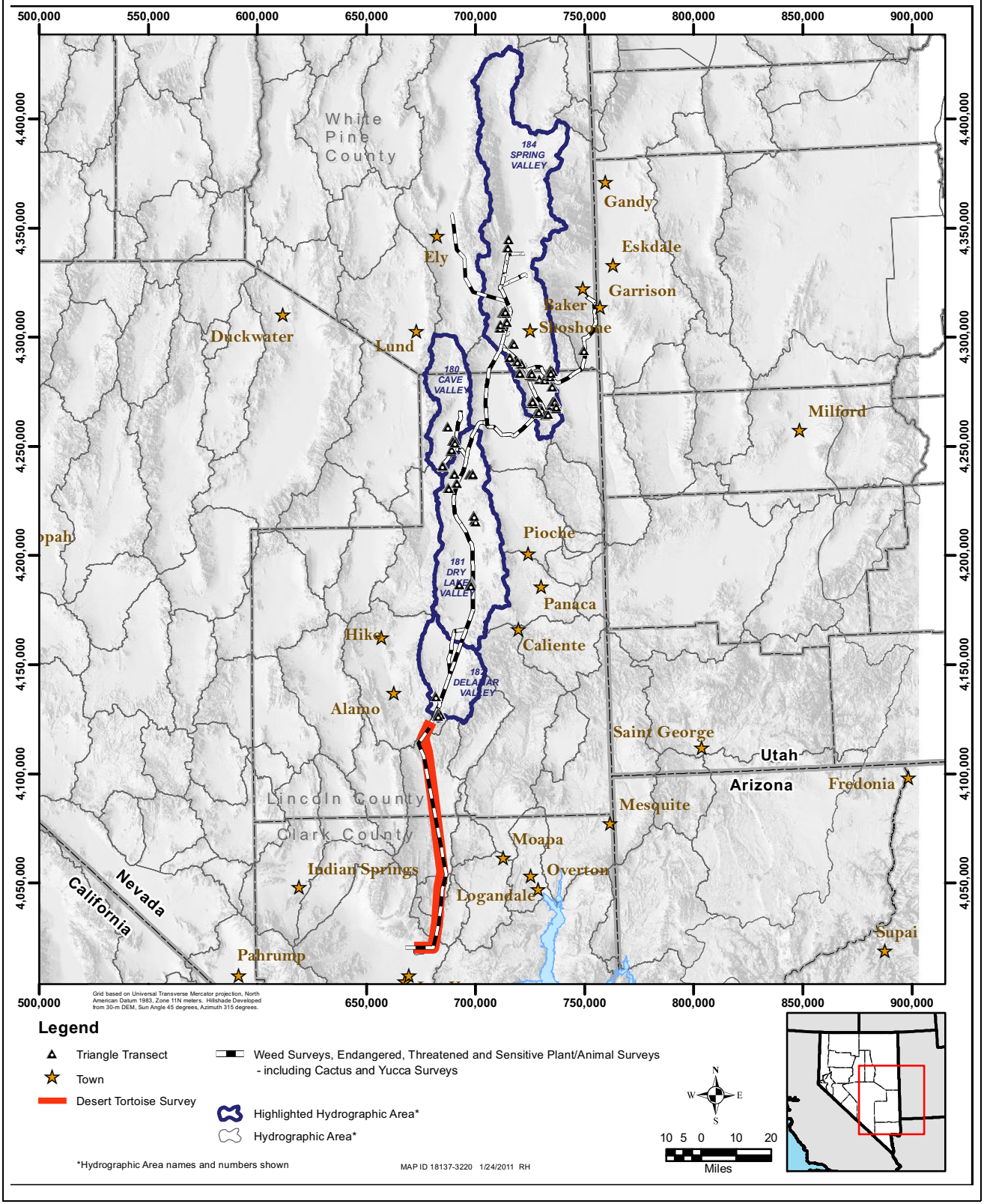


Figure 4-14
Biological Surveys of Proposed Alignment

SNWA Exhibit 363

SNWA Exhibit 374

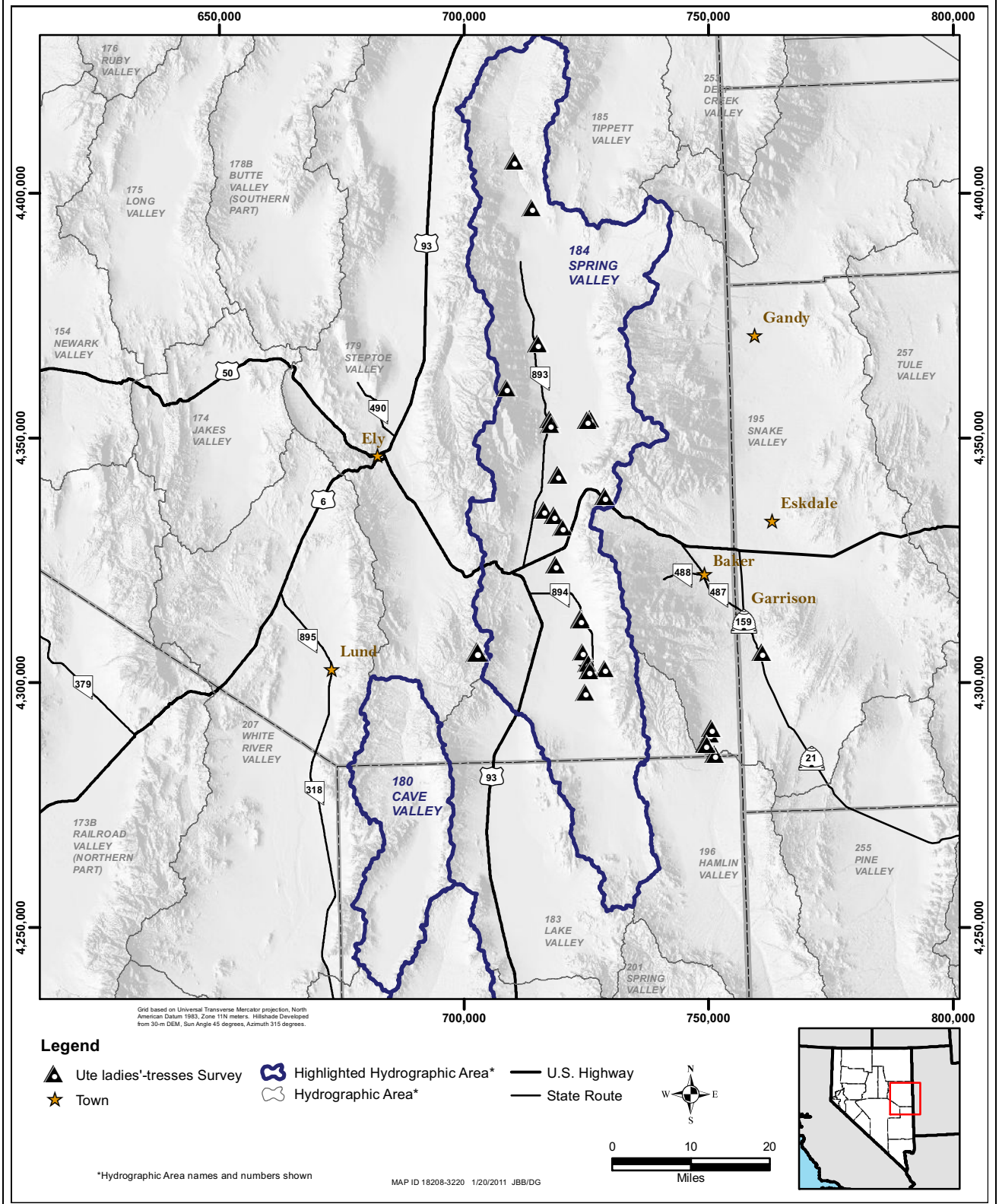


Figure 4-18
Ute Ladies'-Tresses Surveys

SNWA Exhibit 363

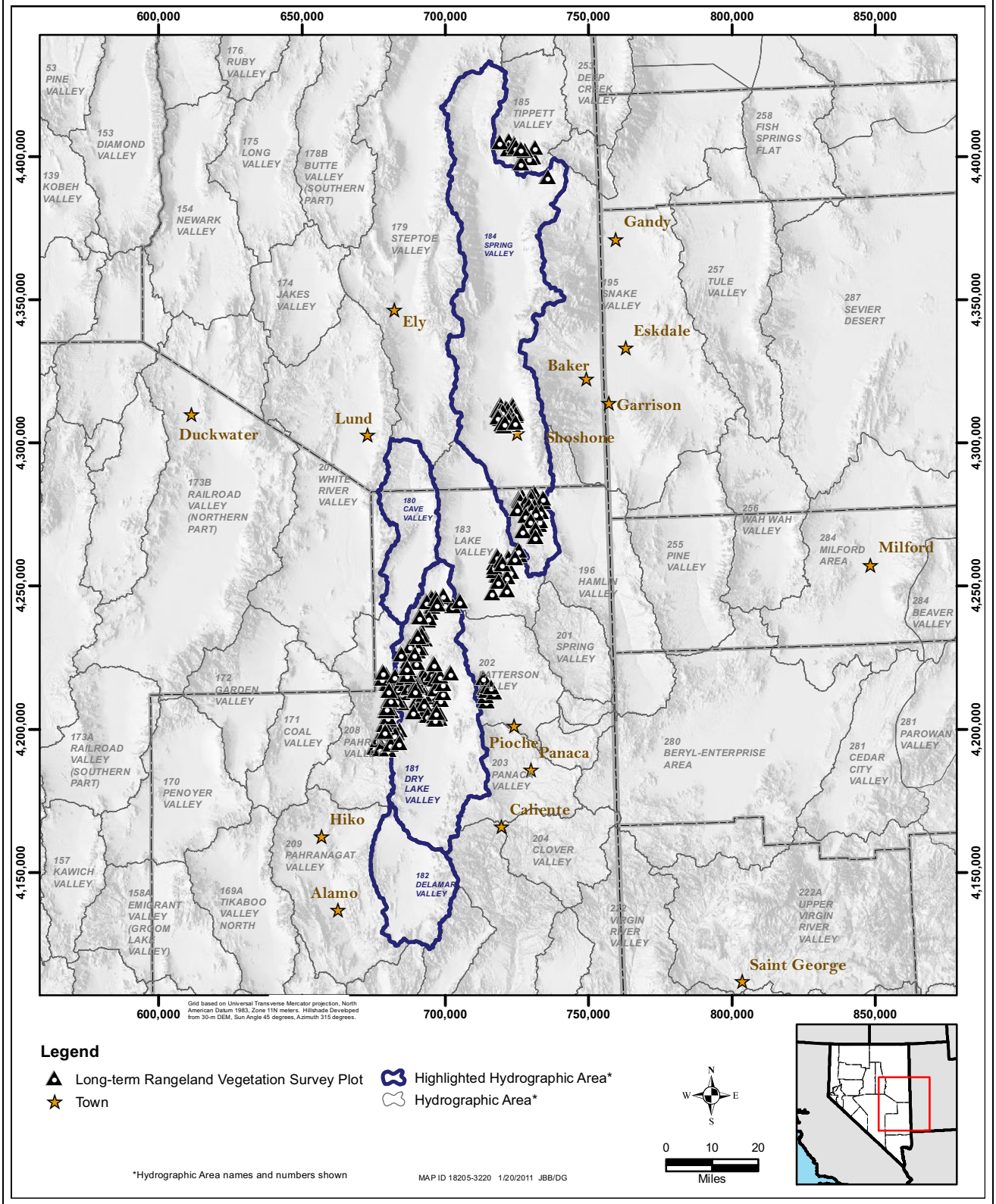


Figure 4-21
Rangeland Vegetation Surveys

SNWA Exhibit 363

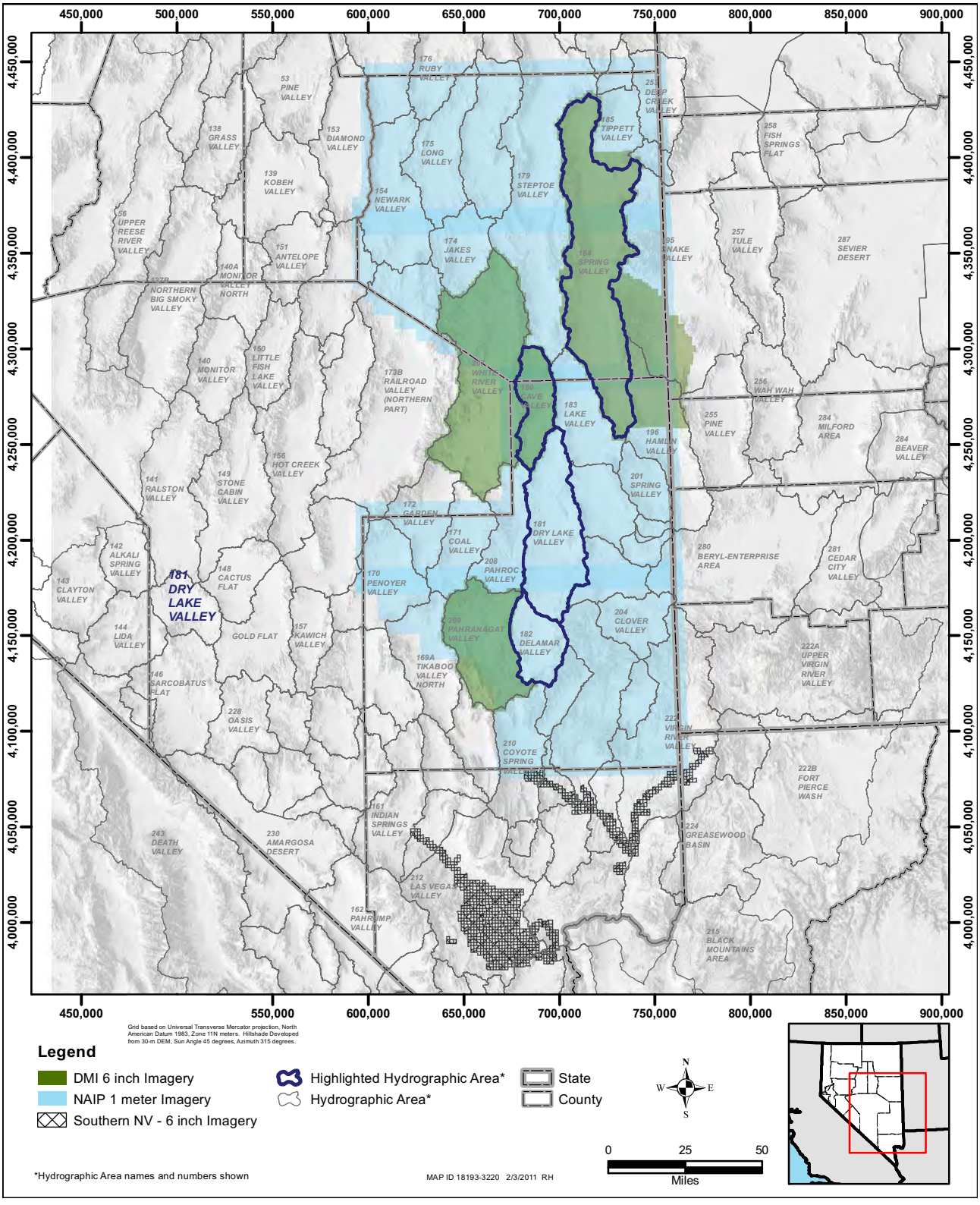


Figure 4-22
Aerial Imagery

SNWA Exhibit 363

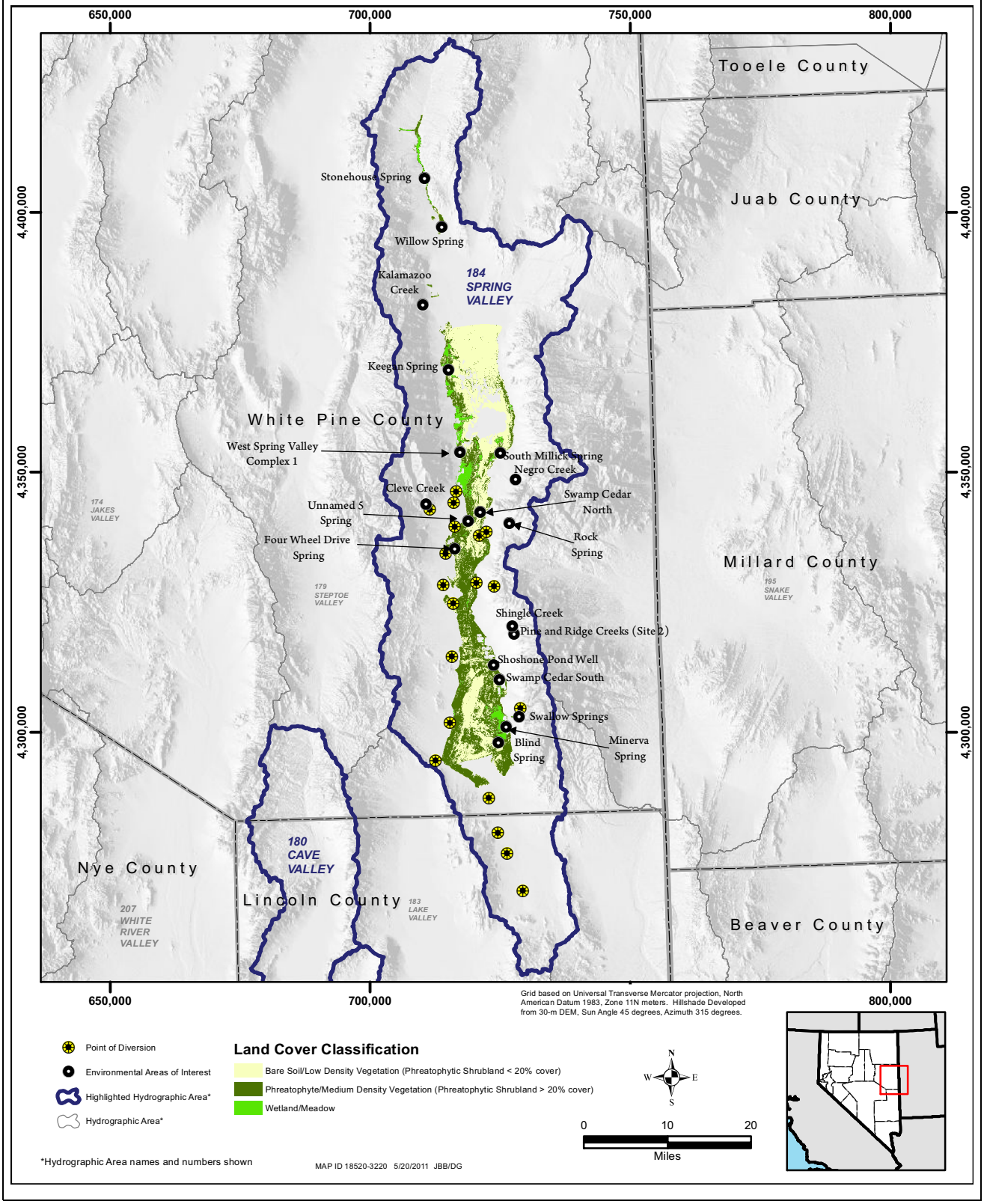


Figure 2-1

ET Land Cover Mapping, Environmental Areas of Interest and POD Locations in Spring Valley

SNWA Exhibit 363

Table 2-1 Aquatic Special Status Species in Environmental Areas of Interest in the Project Basins

Aquatic Species	Status[a]	Groundwater-Influenced Habitat
Spring Valley		
Fish		
Bonneville cutthroat trout	NVP, UTP, BLM	Mountain-block stream
Pahrump poolfish	NVP, FE	Artesian well-fed pond
Relict Dace	NVP, BLM	Alluvial fan / valley floor spring, Artesian well-fed pond
Amphibian		
Northern leopard frog	BLM	Valley floor & alluvial fan / valley floor springs
Invertebrate		
Bifid duct pyrg	NS	Mountain-block spring
Cave Valley		
Invertebrate		
Hardy pyrg	NS	Alluvial fan / valley floor spring
Dry Lake Valley		
Invertebrate		
Flag pyrg	NS	Mountain-block spring

[a] Highest ranks listed. FE = Federally Endangered. NVP = Nevada State Protected.
UTP = Utah State Protected. BLM = BLM Sensitive. NS = NatureServe global imperiled rank 1 or 2.

Table 2-2 Spring Valley Environmental Areas of Interest: Groundwater-Influenced Habitats and Aquatic Biota of Interest

Site Name	Geographic Location	Groundwater Influenced Habitat	Aquatic Biota of Interest	Aquatic Special Status Species
Blind Spring	Valley Floor	Spring, Wetland	Amphibian	Northern leopard frog
Cleve Creek	Originates in Mtn Block	Stream	Game fish	Not present
Four Wheel Drive Spring	Alluvial Fan / Valley Floor	Spring	Not present	Not present
Kalamazoo Creek	Originates in Mtn Block	Stream	Game fish	Not present
Keegan Spring Complex	Alluvial Fan / Valley Floor	Spring, Wetland, Meadow	Transplanted Fish, Amphibian	Relict Dace, Northern leopard frog
Minerva Spring Complex	Alluvial Fan / Valley Floor	Spring, Wetland, Meadow	Amphibian, Springsnail	Northern leopard frog
Negro Creek	Originates in Mtn Block	Stream	Game fish	Not present
Pine and Ridge Creeks	Originates in Mtn Block	Stream	Native fish	Bonneville cutthroat trout [Lower limit: upstream of diversion pipeline, approx 7,100 ft-amsl]
Rock Spring	Mtn Block	Spring	Springsnail	Bifid duct pyrg
Shingle Creek	Originates in Mtn Block	Stream	Game fish	Not present
Shoshone Ponds	Alluvial Fan / Valley Floor	Pond, Springbrook, Wetland, Meadow [Well source]	Transplanted Fish, Amphibian	Pahrump poolfish, Relict dace, Northern leopard frog
South Millick Spring	Valley Floor	Spring	Amphibian	Northern leopard frog
Stonehouse Spring Complex	Alluvial Fan / Valley Floor	Spring, Wetland, Meadow	Transplanted fish, Springsnail	Relict Dace
Swallow Spring	Alluvial Fan	Spring	Not present	Not present
Swamp Cedar North	Valley Floor	Woodland	Not present	Not present
Swamp Cedar South	Alluvial Fan / Valley Floor	Woodland	Not present	Not present
Unnamed 5 Spring	Valley Floor	Spring	Amphibian, Springsnail	Northern leopard frog
West Spring Valley Complex	Alluvial Fan / Valley Floor	Spring, Wetland, Meadow	Amphibian, Springsnail	Northern leopard frog
Willow Spring	Alluvial Fan / Valley Floor	Spring	Springsnail	Not present

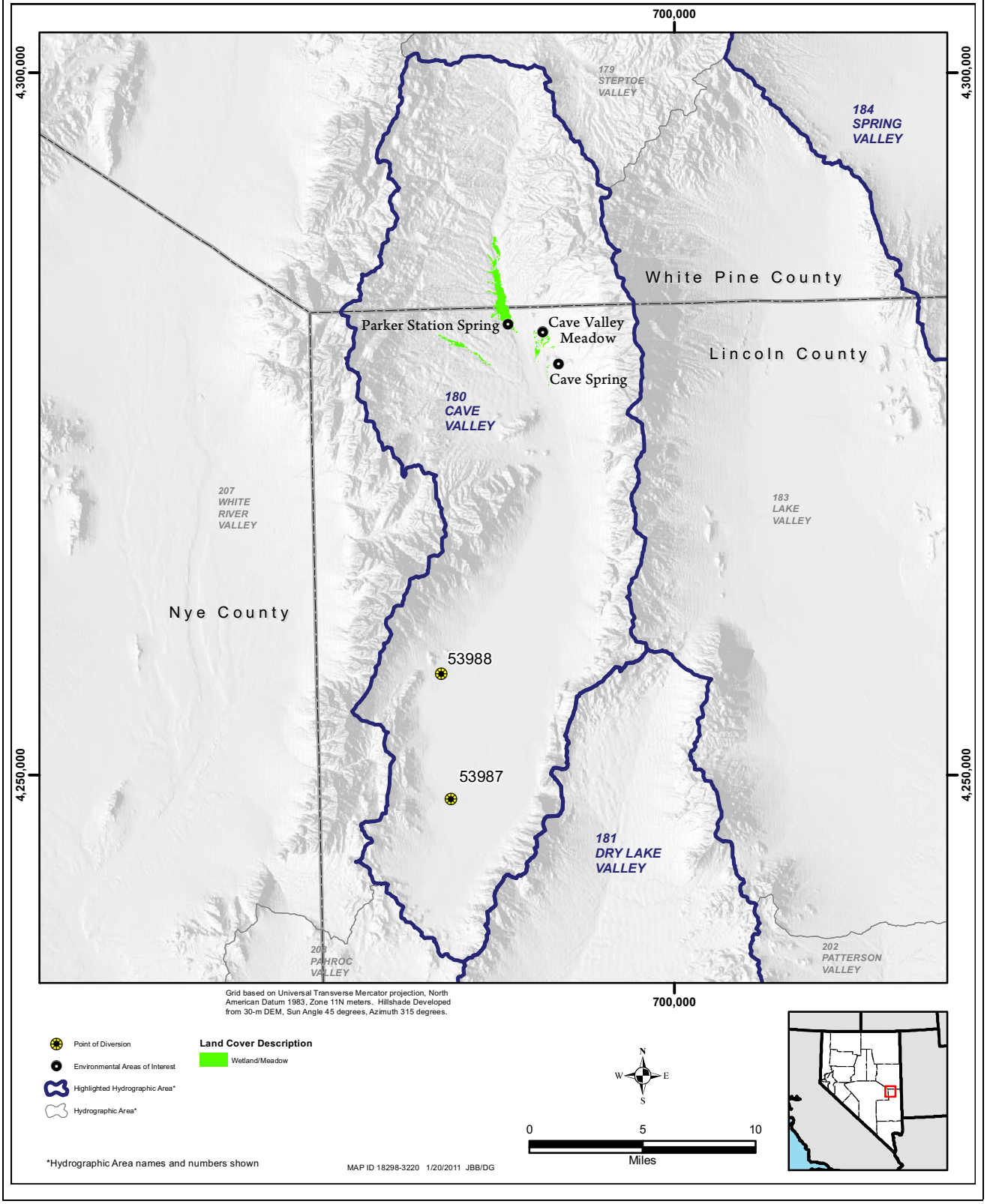


Figure 2-2
ET Land Cover Mapping, Environmental Areas of Interest and POD Locations in Cave Valley

SNWA Exhibit 363

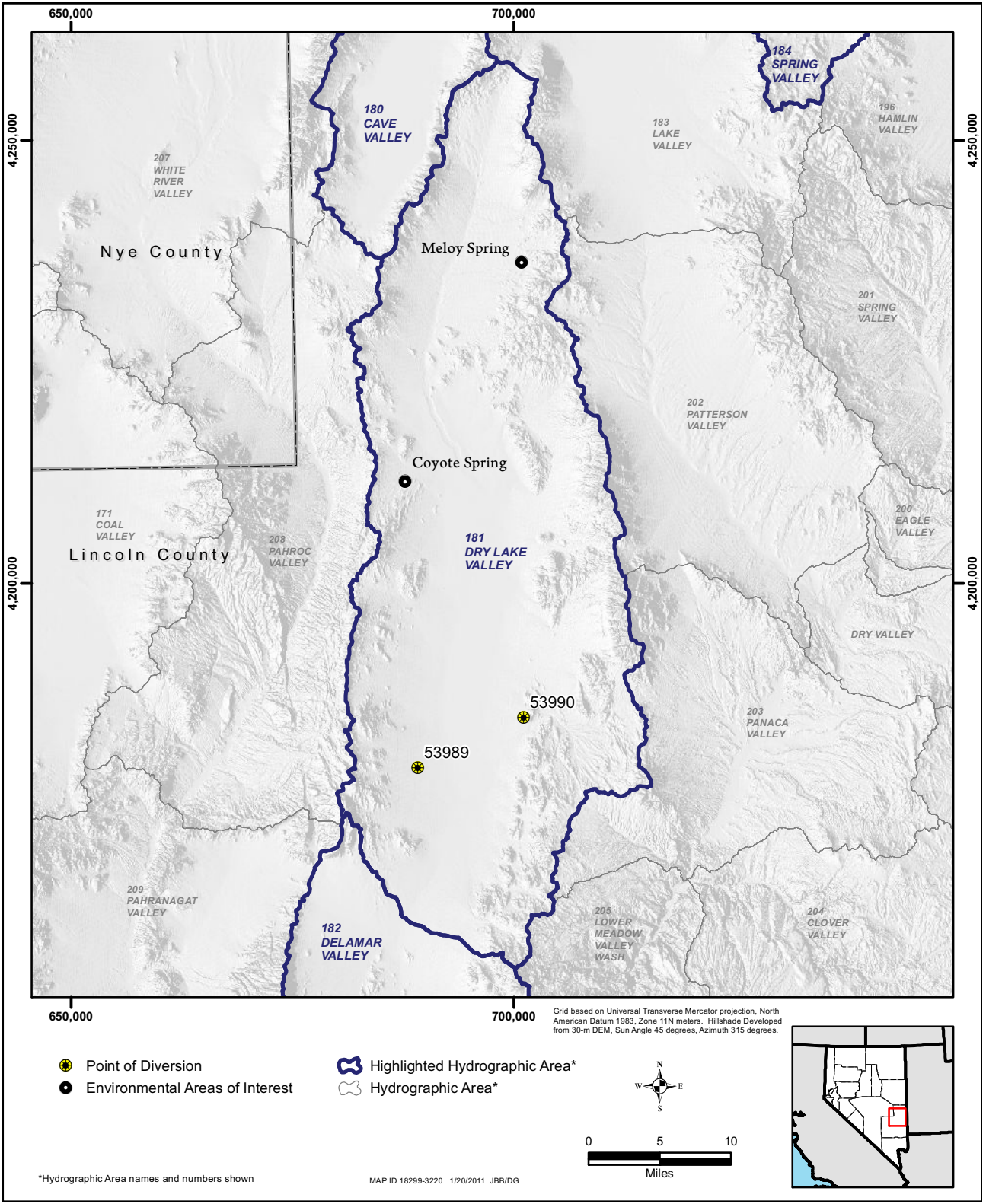
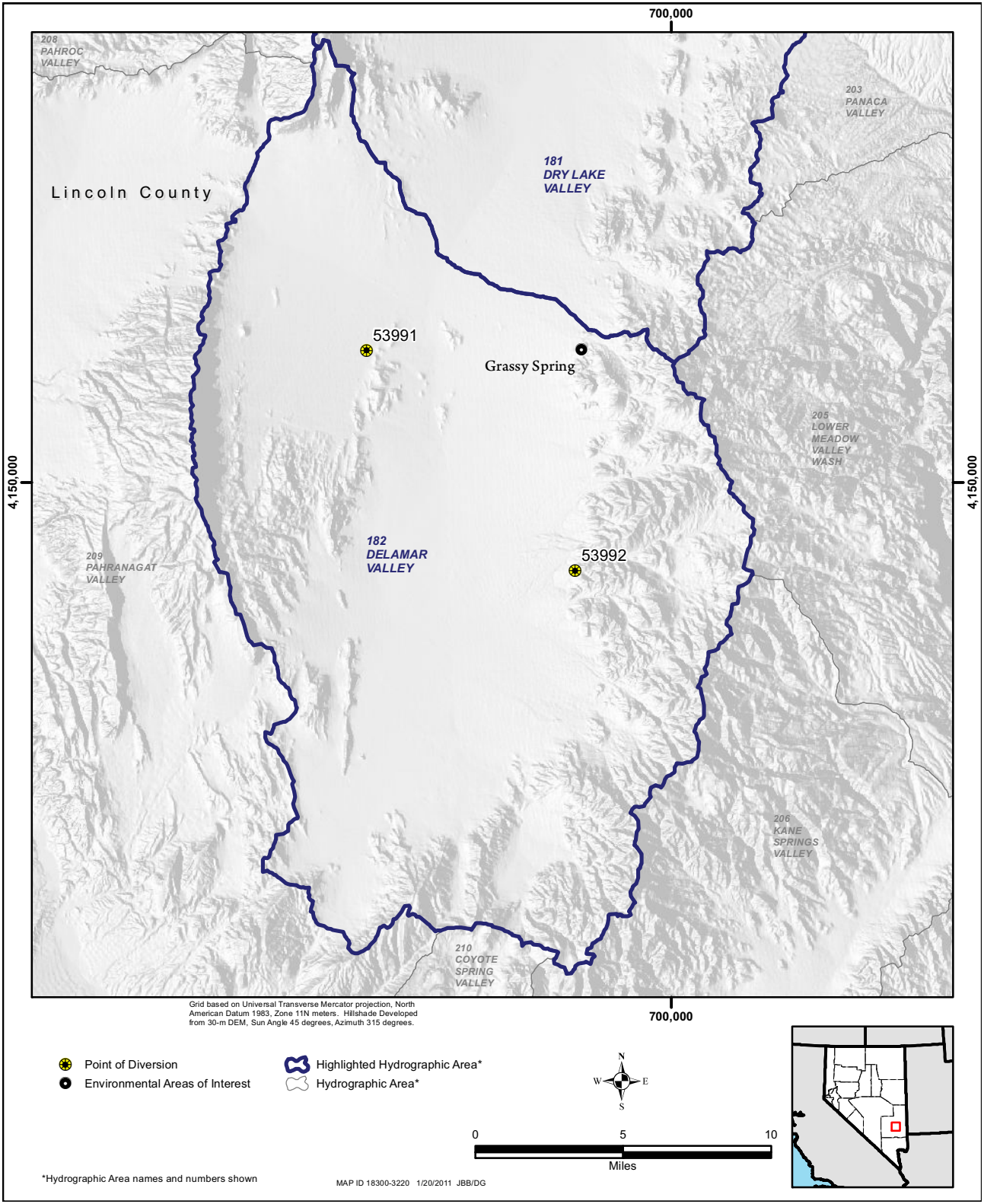


Figure 2-3

SNWA Exhibit 363

Environmental Areas of Interest and POD Locations in Dry Lake Valley



SNWA Exhibit 363

Figure 2-4

Environmental Areas of Interest and POD Locations in Delamar Valley

Table 2-3 DDC Valleys Environmental Areas of Interest: Groundwater-Influenced Habitats and Aquatic Biota of Interest

Site Name	Hydrographic Area	Geographic Location	Groundwater-Influenced Habitat	Aquatic Biota of Interest	Aquatic Special Status Species
Cave Spring	Cave Valley	Mtn Block	Spring, Cave	Cave dwellers	Not present
Cave Valley Meadow	Cave Valley	Alluvial Fan / Valley Floor	Spring, Wetland, Meadow	Not present	Not present
Parker Station Spring	Cave Valley	Alluvial Fan / Valley Floor	Spring	Springsnail	Hardy pyrg
Grassy Spring	Delamar Valley	Mtn Block	Spring	Not present	Not present
Coyote Spring	Dry Lake Valley	Mtn Block	Spring	Not present	Not present
Meloy Spring	Dry Lake Valley	Mtn Block	Spring	Springsnail	Flag pyrg

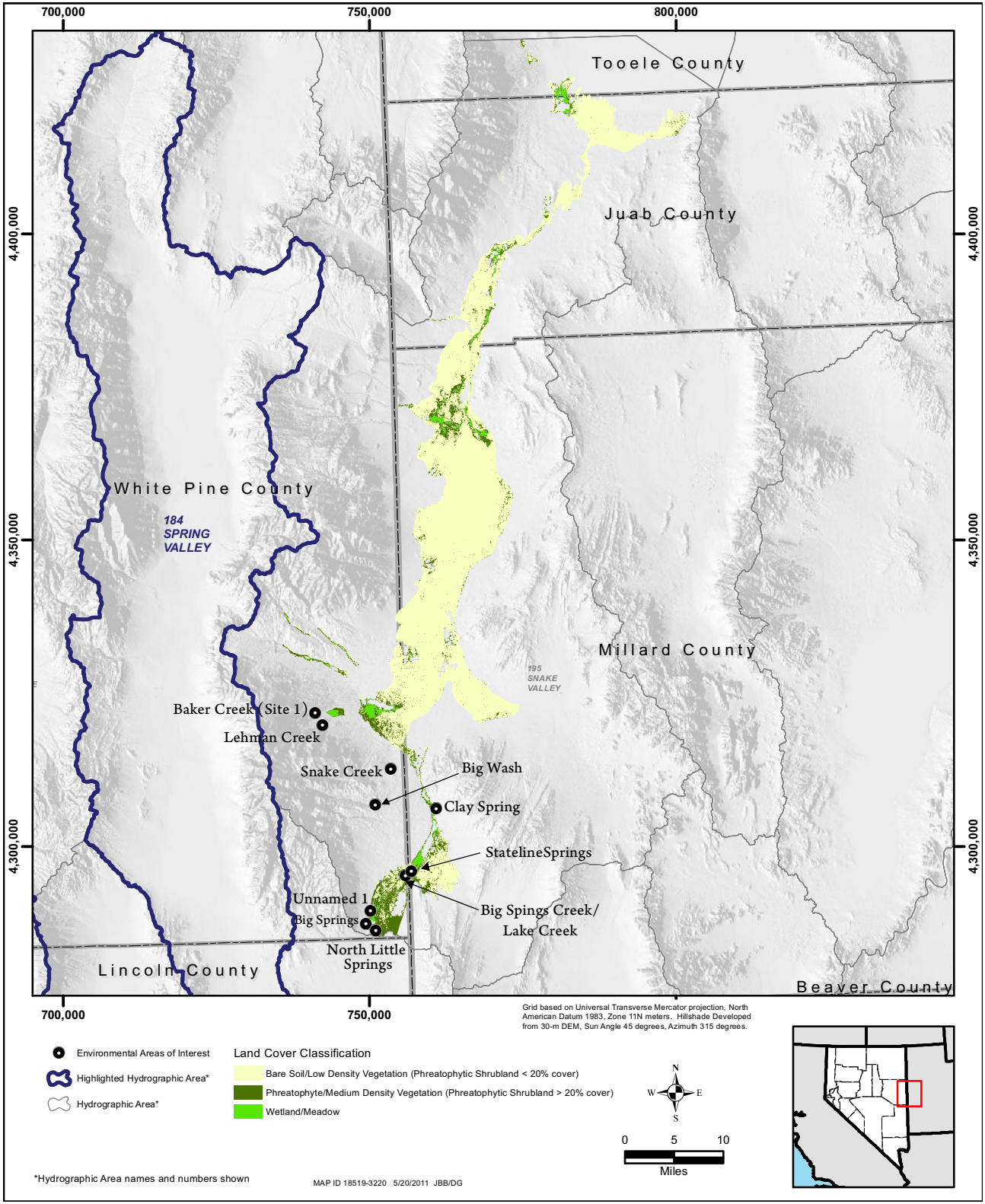


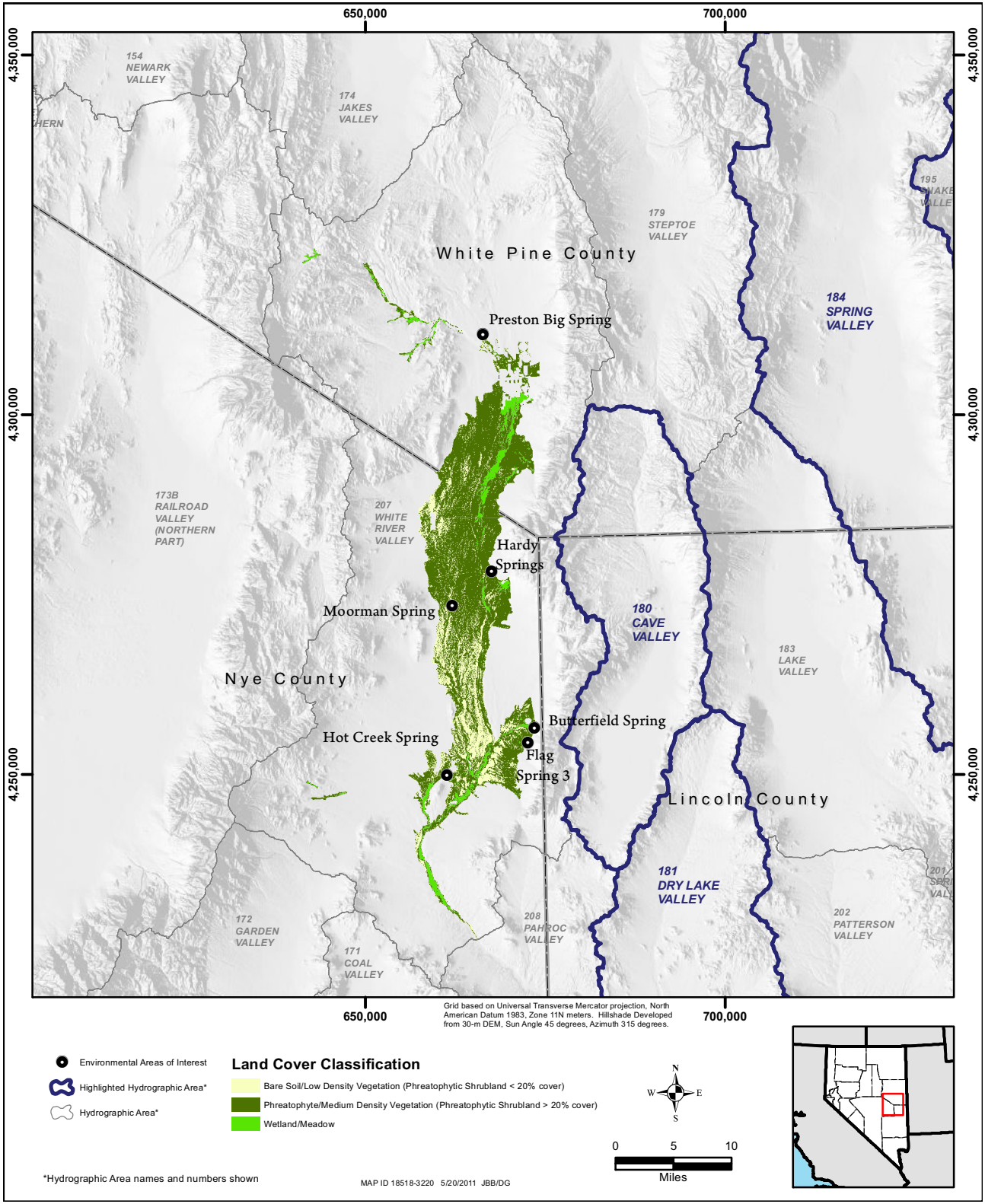
Figure 2-5

SNWA Exhibit 363

ET Land Cover Mapping and Environmental Areas of Interest in Snake Valley

Table 2-5 Snake Valley Environmental Areas of Interest: Groundwater-Influenced Habitats and Aquatic Biota of Interest

Site Name	Geographic Location	Groundwater-Influenced Habitat	Aquatic Biota of Interest	Aquatic Special Status Species
Baker Creek (incl. S Fork)	Originates in Mtn Block	Stream	Native fish	Bonneville cutthroat trout [Lower limit: S Fork Baker Ck / Baker Ck convergence, approx 8,000 ft-amsl]
Big Springs	Alluvial Fan	Spring	Native fish community, Springsnails	Redside shiner, Utah chub, Utah sucker, Longitudinal gland pyrg, Bifid duct pyrg
Big Springs Creek / Lake Creek	Alluvial Fan / Valley Floor	Stream	Native fish community	Redside shiner, Utah chub, Utah sucker
Big Wash (incl. S Fork)	Originates in Mtn Block	Stream	Native fish	Bonneville cutthroat trout [Lower limit: end of native stream / upstream of canal ditches, approx 6,400 ft-amsl]
Clay Spring North	Alluvial Fan	Spring	Springsnail	Longitudinal gland pyrg
Lehman Creek	Originates in Mtn Block	Cave, Stream	Cave dwellers; Game fish	Not present
North Little Spring	Alluvial Fan	Spring	Not present	Not present
Snake Creek	Originates in Mtn Block	Stream	Native fish	Bonneville cutthroat trout [Lower limit: upstream of 3-mi diversion pipeline, approx 7,600 ft-amsl]
Stateline Springs	Alluvial Fan / Valley Floor	Spring	Springsnail	Longitudinal gland pyrg
Unnamed 1 Spring N of Big	Alluvial Fan	Spring	Springsnail	Longitudinal gland pyrg



SNWA Exhibit 363

Figure 2-8

ET Land Cover Mapping and Environmental Areas of Interest in White River Valley

Table 2-8 White River Valley Environmental Areas of Interest: Groundwater-Influenced Habitats and Aquatic Biota of Interest

Site Name	Geographic Location	Groundwater-Influenced Habitat	Aquatic Biota of Interest	Aquatic Special Status Species
Butterfield Spring	Alluvial Fan / Valley Floor	Spring	Native fish, Springsnails	White River speckled dace, White River sculpin, Butterfield pyrg, Hardy pyrg
Flag Springs [a]	Alluvial Fan / Valley Floor	Spring	Native fish, Springsnails	White River spinedace, White River speckled dace, White River desert sucker, Flag pyrg, White River Valley pyrg
Hardy Springs	Alluvial Fan / Valley Floor	Spring	Springsnail	Hardy pyrg
Hot Creek Spring [a]	Valley Floor	Spring	Native fish, Springsnails	Moorman White River springfish, Pahranagat pebblesnail, Grated tryonia
Moorman Spring	Valley Floor	Spring	Native fish, Springsnails	Moorman White River springfish, Pahranagat pebblesnail, Grated tryonia
Preston Big Spring	Alluvial Fan / Valley Floor	Spring	Native fish, Springsnail	White River speckled dace, Preston White River springfish, White River Valley pyrg

[a]Flag Springs outflow: Sunnyside Creek, Hot Creek Spring outflow: Hot Creek.

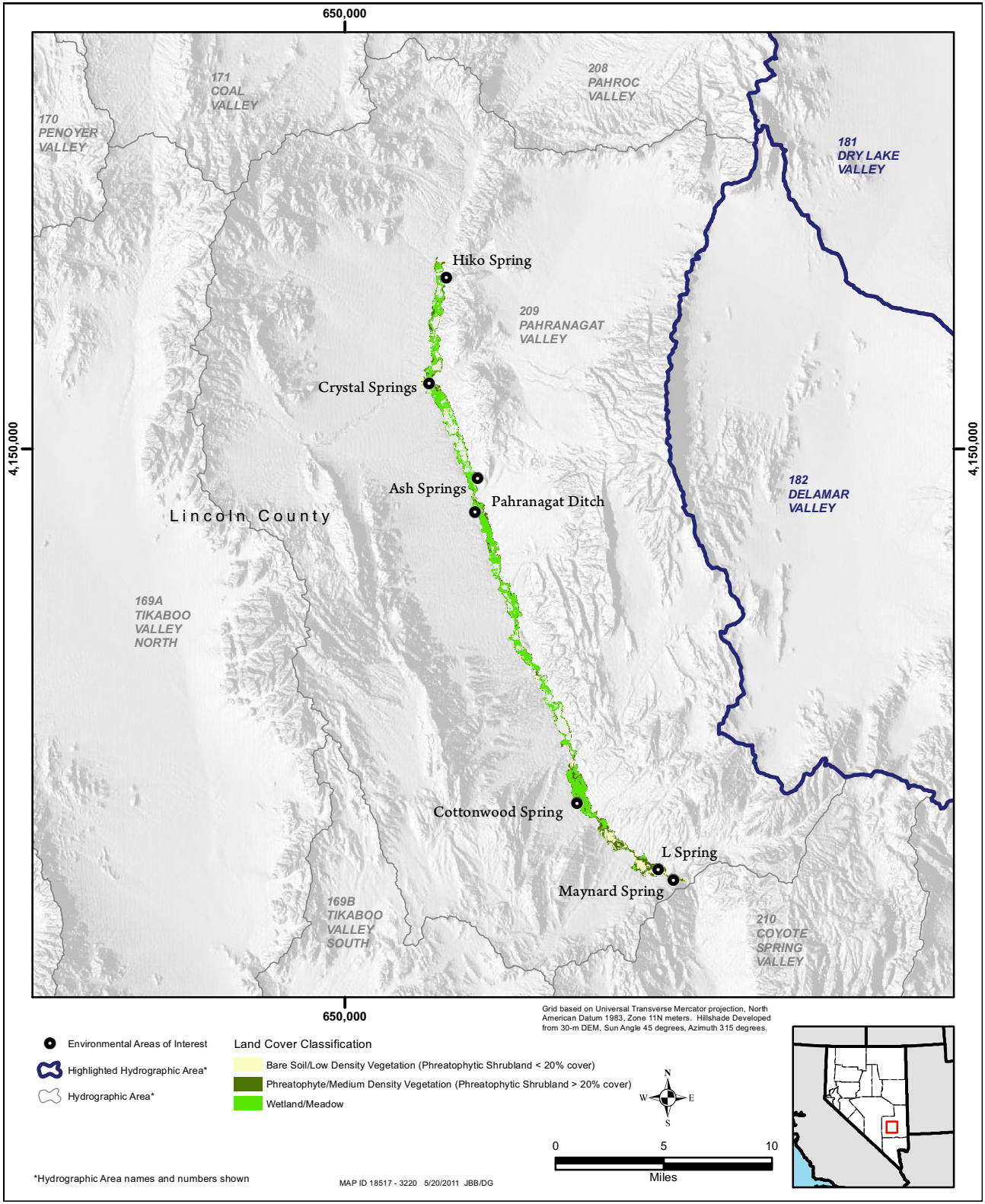


Figure 2-9

SNWA Exhibit 363

ET Land Cover Mapping and Environmental Areas of Interest in Pahranagat Valley

Table 2-9 Pahranagat Valley Environmental Areas of Interest: Groundwater-Influenced Habitats and Aquatic Biota of Interest

Site Name	Geographic Location	Groundwater-Influenced Habitat	Aquatic Biota of Interest	Aquatic Special Status Species
Ash Spring	Valley Floor	Spring	Native fish, Springsnails, Other invertebrates	White River springfish, Pahranagat pebblesnail, Grated tryonia, Ash Springs riffle beetle, Pahranagat naucorid bug
Cottonwood Spring	Alluvial Fan / Valley Floor	Spring	Native fish	Pahranagat speckled dace
Crystal Spring	Valley Floor	Spring	Native fish, Springsnail	Hiko White River springfish, Hubbs pyrg
Hiko Spring	Valley Floor	Spring	Native fish; Springsnail possible	Hiko White River springfish
L Spring	Alluvial Fan / Valley Floor	Spring	Amphibian; Springsnail possible	Northern leopard frog
Maynard Spring	Alluvial Fan / Valley Floor	Spring	Amphibian; Springsnail possible	Northern leopard frog
Pahranagat Ditch	Valley Floor	Stream, Riparian woodland	Native fish	Pahranagat roundtail chub

Table 5-2 Potentially Required Federal and State Permits and Reviews

Agency	Permit/Approval
Federal	
Federal Highway Administration	Permit for pipeline and transmission lines across or within federal highway rights-of-way
U.S. Army Corps of Engineers	Section 404 Clean Water Act permit
U.S. Bureau of Land Management	Temporary and permanent rights-of-way grants Conformity with Las Vegas and Ely Field Offices Resource Management Plans National Environmental Policy Act National Historic Preservation Act Section 106 consultation Indian trust responsibility
U.S. Fish and Wildlife Service	Section 7 Endangered Species Act consultation and Biological Opinion Migratory Bird Treat Act consultation Bald and Golden Eagle Protection Act consultation
U.S. Bureau of Indian Affairs	Indian trust responsibility
Advisory Council on Historic Preservation	Section 106 National Historic Preservation Act participation
U.S. Environmental Protection Agency	Section 309 Clean Air Act EIS review
State	
Nevada Department of Cultural Affairs, State Historic Preservation Office	Section 106 National Historic Preservation Act review and concurrence
Nevada Division of Environmental Protection, Bureau of Water Pollution Control	Section 401 Water Quality Certification General storm water permit Temporary discharge permit Temporary groundwater discharge permit Working in waterways permit Underground injection control permit
Nevada Division of Environmental Protection, Bureau of Safe Drinking Water	Letter of approval to construct
Nevada Department of Transportation	Encroachment into State Highway rights-of-way Rights-of-way occupancy permits
Nevada Department of Wildlife	Handling permit for desert tortoise, Gila monster, and other sensitive species
Nevada Division of Forestry	Collection permit for state-listed plants
Nevada Division of Water Resources	Water right permits Well driller's permit Dam safety permit Recharge, storage, and recovery of underground water permit
Nevada Division of State Lands	State Land rights-of-way
Nevada Division of Environmenal Protection, Bureau of Air Pollution Control	Dust control permits Operating permits for backup generators

Table 5-5 Species Addressed in the Biological Assessment

Species	Status	Basin(s) Present
Southwestern Willow Flycatcher (*Empidonax traillii extimus*)	Endangered	LMR, LMV, PAH, UMR
Yuma Clapper Rail (*Rallus longirostris yumanensis*)	Endangered	LMR
Desert Tortoise (*Gopherus agassizii*)	Threatened	LV, GA, HI, CS, PAH
Pahrump Poolfish (*Empetrichthys latos*)	Endangered	SPR
White River Spinedace (*Lepidomeda albivallis*)	Endangered	WR
Big Spring Spinedace (*Lepidomeda mollispinis pratensis*)	Threatened	PAN
White River Springfish (*Crenichthys baileyi baileyi*)	Endangered	PAH
Hiko White River Springfish (*Crenichthys baileyi grandis*)	Endangered	PAH
Pahranagat Roundtail Chub (*Gila robusta jordani*)	Endangered	PAH
Moapa Dace (*Moapa coriacea*)	Endangered	UMR
Ute ladies'-tresses (*Spiranthes diluvialis*)	Threatened	Not Present
Greater Sage-Grouse (*Centrocercus urophasianus*)	Candidate	CV, LK, SPR, SNK
Northern Leopard Frog (*Lithobates* (=*Rana*) *pipiens*)	Petitioned	SPR
Longitudinal Gland Pyrg (*Pyrgulopsis anguina*)	Petitioned	SNK
Flag Pyrg (*Pyrgulopsis breviloba*)	Petitioned	WR, CV
Butterfield Pyrg (*Pyrgulopsis lata*)	Petitioned	WR, DRL
Lake Valley Pyrg (*Pyrgulopsis sublata*)	Petitioned	LK
Blaine's Pincushion (*Sclerocactus blainei*)	BLM Sensitive	DRL

CS=Coyote Spring Valley; CV=Cave; DRL=Dry Lake Valley; GA=Garnett Valley; HI=Hidden Valley; LMR=Lower Muddy River; LK=Lake Valley; LMV=Lower Meadow Valley Wash; LV=Las Vegas Valley; PAH=Pahranagat Valley; PAN=Panaca Valley; SNK=Snake Valley; SPR=Spring Valley; UMR=Upper Muddy River; WR=White River Valley

*The least chub *(Iotichthys phlegethentis)* was also recommended for conference by the USFWS, however it is not within the proposed or programmatic action areas and thus is not assessed in the BA.

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO
ATTENTION OF

August 18, 2009

Regulatory Division SPK-2009-00594

Kenneth Albright
SNWA
100 City Parkway
Las Vegas, Nevada 89193

Dear Mr. Albright:

We are responding to your request for an approved jurisdictional determination for the Clark, Lincoln and White Pine Counties Groundwater Development project. This project consists of construction and operation of groundwater conveyance, treatment facilities and power conveyance facilities. The project includes main and lateral pipelines requiring approximately 306 miles of buried water pipelines, which will include approximately 3651 acres of permanent right-of-way and 3668 acres of temporary right-of-way. This project will impact approximately 4.5 acres of ephemeral drainages that are considered jurisdictional under Section 404 of the Clean Water Act. Of these impacts, only 0.02 acres are considered to be permanent impacts. The project is located within three counties; Clark, Lincoln and White Pine Counties and crosses numerous hydrologic basins.

Based on available information, we concur with the estimate of waters of the United States, as depicted on the Figures 2A through 2AA, dated August 24, 2008, included in the May 2009 report, "Waters of the United States Preliminary Jurisdictional Determination Report for the Southern Nevada Water Authority Clark, Lincoln and White Pine Counties Groundwater Development Project", prepared by the Southern Nevada Water Authority. Approximately 4.5 acres of waters of the United States, including wetlands, are present within the survey area. These waters are regulated under Section 404 of the Clean Water Act.

This verification is valid for five years from the date of this letter, unless new information warrants revision of the determination before the expiration date. This letter contains an approved jurisdictional determination for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331.

A Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form is enclosed. If you request to appeal this determination you must submit a completed RFA form to the South Pacific Division Office at the following address: Administrative Appeal Review Officer, Army Corps of Engineers, South Pacific Division, CESPD-PDS-O, 1455 Market Street, San Francisco, California 94103-1399, Telephone: 415-503-6574, FAX: 415-503-6646.

Table 5-4 SNWA Environmental Protection Measures

Category	Number of Measures
General Construction Practices	89
General Operation Practices	13
Geologic Hazards and Soils	3
Water Resources	2
General Biological Resources	8
Special Status Plants	7
Desert Tortoise	21
Banded Gila Monster and Chuckwalla	3
Burrowing Owls and Kit Fox	9
Greater Sage-Grouse	8
Pygmy Rabbit	4
Desert Valley Kangaroo Mouse	1
Migratory Birds (including Raptors)	8
Big Game and Wild Horses	7
Game Fish	2
Paleontological Resources	3
Cultural Resources	8
Land Use and Range Management	4
Noise	4
Air Quality	8
Visual Resources	4
Socioeconomics	4
Programmatic Measures – Future ROWs	11
Measures from SNWA Agreements	49
Adaptive Management Measures	22

Table 5-3 Cooperating Agencies

Federal Agencies	State and Local Agencies
Army Corps of Engineers	Central Nevada Regional Water Authority
Bureau of Indian Affairs	Clark County, Nevada
Bureau of Reclamation	Juab County, Utah
Fish and Wildlife Service	Lincoln County, Nevada
Forest Service	Millard County, Utah
National Park Service	Nevada Department of Wildlife (NDOW)
Nellis Air Force Base (U.S. Air Force)	State of Utah
U.S. Geological Survey (Technical Advisor)	Tooele County, Utah
	White Pine County

Federal Register, a Notice of Intent (NOI) to prepare an EIS. In addition, a 45-day public comment period for the Draft EIS began on July 16, 2010, when the EPA published a Notice of Availability for the Draft EIS in the **Federal Register**, and ended on August 30, 2010.

This notice announces a Supplement to the Draft EIS, which is located online at *http://www.blm.gov/ut/st/en/fo/vernal/planning/nepa_.html.* The Supplement to the Draft EIS analyzes only new information relating to the project's conformance with the National Ambient Air Quality Standards for 1-hour nitrogen dioxide (NO_2) and sulfur dioxide (SO_2), and discloses recent ozone monitoring data. All other environmental impacts are incorporated by reference to the Draft EIS. A Final EIS will be prepared after the comment period for the Supplement closes. All comments received during the Draft EIS comment period and the Supplement comment period will be responded to in the Final EIS.

The BLM asks that those submitting comments make them as specific as possible with reference to chapters, page numbers, and paragraphs in the Supplement to the Draft EIS. Comments that contain only opinions or preferences will not receive a formal response; however, they will be considered, and included, as part of the BLM decision-making process. The most useful comments will contain new technical or scientific information, identify data gaps in the impact analysis, or provide technical or scientific rationale for opinions or preferences.

Jeff Rawson,

Associate State Director.

[FR Doc. 2011–14405 Filed 6–9–11; 8:45 am]

BILLING CODE 4310–DQ–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLNVL00000.L51010000.ER0000. LVRWF09F3450 241A; N–78803; 11–08807; MO#4500020763; TAS: 14X5017]

Notice of Availability of the Draft Environmental Impact Statement, Including a Draft Programmatic Agreement, for the Clark, Lincoln, and White Pine Counties Groundwater Development Project, NV

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of Availability.

SUMMARY: In accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, and the National Historic Preservation Act of 1966 (NHPA), as amended, the Bureau of Land Management (BLM) has prepared a Draft Environmental Impact Statement (EIS) and a Draft Programmatic Agreement (PA), which is included as an Appendix to the EIS, for the Southern Nevada Water Authority's (SNWA) Clark, Lincoln, and White Pine Counties Groundwater Development Project (SNWA Project), and by this notice is announcing the opening of the comment period.

DATES: To ensure comments will be considered, the BLM must receive written comments on the SNWA Project Draft EIS and Draft PA within 90 days following the date the Environmental Protection Agency publishes its Notice of Availability in the **Federal Register**. The BLM will announce future meetings or hearings and any other public involvement activities at least 15 days in advance through public notices, media releases, and/or mailings.

ADDRESSES: You may submit comments related to the Draft EIS or the Draft PA for the SNWA Project by any of the following methods:

- *E-mail: nvgwprojects@blm.gov.*
- *Fax:* (775) 861–6689.
- *Mail:* SNWA Project, Bureau of Land Management, *Attn:* Penny Woods, P.O. Box 12000, Reno Nevada 89520.

For a copy of the SNWA Project Draft EIS and Draft PA you may: send a written request to BLM at the above address; call project manager Penny Woods at (775) 861–6466; e-mail *penny_woods@blm.gov;* or download the document from the BLM's Web site at *http://www.blm.gov/5w5c.* A list of where review copies are available is in the **SUPPLEMENTARY INFORMATION** section.

FOR FURTHER INFORMATION CONTACT: Penny Woods, Project Manager, telephone (775) 861–6466; address P.O. Box 12000, Reno, Nevada 89520; e-mail *penny_woods@blm.gov.* Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 to contact the above individual during normal business hours. The FIRS is available 24 hours a day, 7 days a week, to leave a message or question with the above individual. You will receive a reply during normal business hours.

SUPPLEMENTARY INFORMATION: Cooperating Agencies: *Federal*—Fish and Wildlife Service, Bureau of Reclamation, Bureau of Indian Affairs, National Park Service, Forest Service, Army Corps of Engineers, Nellis Air Force Base; *State*—Nevada Department of Wildlife, State of Utah; *Counties and County Organizations*—Central Nevada Regional Water Authority, White Pine, Lincoln, and Clark counties (NV); and Juab, Millard, and Tooele counties (UT).

Review copies are also available in the following locations:

BLM Offices in Nevada

Nevada State Office, 1340 Financial Blvd., Reno
Ely District Office, 702 N. Industrial Way, Ely
Caliente Field Office, U.S. Hwy. 93, Building #1, Caliente
Southern Nevada District Office, 4701 N. Torrey Pines Drive, Las Vegas.

Libraries in Nevada

Nevada State Library, 100 N. Stewart St., Carson City
White Pine County Library, 950 Campton St., Ely
Lincoln County Library, 100 Depot Ave., Caliente
Lincoln County Library, 100 N. First St. E., Alamo
Mesquite Library, 121 W. First N. St., Mesquite
Clark County Library, 1401 E. Flamingo Road, Las Vegas.

BLM Offices in Utah

Utah State Office, 440 W. 200 S., Salt Lake City
West Desert District Office, 2370 S. 2300 W., Salt Lake City
Color Country District Office, 1760 East DL Sargent Drive, Cedar City
Fillmore Field Office, 35 E. 500 N., Fillmore
St George Field Office, 345 E. Riverside Drive, St. George.

Libraries in Utah

Utah State Library, 250 N. 1950 W., Salt Lake City
Delta City Library, 76 N. 200 W., Delta
Cedar City Library, 303 N. 100 E., Cedar City
Washington County Library, 88 W. 100 S., St George
Tooele City Library, 128 W. Vine St., Tooele
Nephi Library, 21 E. 100 N., Nephi
Beaver Library, 55 W. Center St., Beaver.

The Draft EIS describes and analyzes SNWA's rights-of-way (ROW) request over public land for the SNWA Project, which would develop and convey groundwater rights that may be granted by the Nevada State Engineer (NSE) to SNWA in Spring, Snake, Delamar, Dry Lake, and Cave valleys based on applications that are currently pending before the NSE. The Draft EIS addresses the ROW request as submitted by SNWA; alternative alignments of pipelines, power lines and other ancillary facilities; alternative pumping

locations/scenarios; and a no action alternative.

A programmatic agreement is a program alternative allowed under the regulations of the Advisory Council on Historic Preservation (ACHP) for complying with the historic properties review process required of every Federal undertaking pursuant to section 106 of NHPA and its implementing regulations (36 CFR 800.14). When executed by the BLM, the Nevada State Historic Preservation Officer (SHPO), the U.S. Army Corps of Engineers, ACHP, and SNWA, the terms of the executed PA will set forth the conditions for satisfying the SNWA Project's obligations under section 106 of the NHPA.

Under the proposed action, SNWA could be granted a ROW that would permit the development and operation of a system of regional water facilities that could be used to convey up to 217,655 acre-feet-per-year (afy) of groundwater rights, including 184,655 afy of SNWA groundwater rights (if permitted by the NSE) with the remaining capacity reserved for future use by Lincoln County. The exact amount of groundwater available to the proposed project is dependent upon the future action by the NSE. The EIS and ROW application do not authorize or address permitting of water rights. The NSE is solely responsible for those issues.

The proposed ROW project would include approximately 306 miles of a buried water pipeline between 16 and 84 inches in diameter; approximately 323 miles of 230 kilovolt (kV), 69 kV and 25 kV overhead power lines; 2 primary electrical substations, 5 secondary substations, 3 pressure-reducing facilities; 5 pumping stations; 6 regulating tanks; a 40-million-gallon-per-day buried storage reservoir; a 165 million-gallon-per-day water treatment facility; and associated access roads.

This is the initial EIS in a tiered NEPA evaluation process. As described in Council on Environmental Quality Regulations, a tiered NEPA process can be used for Proposed Actions such as the SNWA Project when specific locations have not been defined for all phases. Under NEPA, tiering involves a two-fold approach wherein general analyses are first covered in a broad EIS and more detailed issues are tiered (referenced) to that broader EIS. Once the broader EIS is completed, subsequent narrower statements or environmental assessments incorporate the general discussions from the broader EIS by reference, allowing the subsequent document to concentrate on the issues specific to the project or project phase. The NEPA regulations encourage Federal agencies to tier environmental documents for multi-stage projects to eliminate repetitive discussions of the same issues and to focus on the issues that are ready for decision at each level of environmental review.

This EIS is broad in scope and evaluates the potential environmental effects of granting SNWA's proposed ROW, including: (1) Pumping up to 184,655 afy of SNWA groundwater rights (if permitted by the NSE); and (2) Construction of the SNWA Project's proposed main pipeline, power facilities, and water storage and treatment facilities which are part of the current ROW request. These mainline facilities are not all of the facilities ultimately required for construction and operation of the SNWA Project, if fully developed. Full development of the SNWA Project would likely require between 108 and 131 groundwater production wells, 100–250 miles of collector pipeline and overhead power lines, and 2 additional pumping stations and electrical substations. The specific locations of these additional facilities are dependent upon future rulings of the NSE (whether and where the SNWA's groundwater right applications are granted), exploratory drilling (which would determine where SNWA can best access its groundwater rights), and agency agreements (SNWA may agree to change the location, timing, and quantity of pumping to minimize or mitigate effects to sensitive resources). When SNWA later applies for site-specific ROWs for these additional groundwater production wells and associated facilities, then additional NEPA compliance, tiered to this EIS, would consider the site-specific effects of future facility construction and operation. The sources of water for the reserved Lincoln County capacity have not been determined at this time, and would be subject to additional NEPA compliance, tiered to this EIS, before it could be conveyed and delivered by the SNWA Project.

A permanent ROW of up to 100 feet in width and temporary construction ROWs of an additional 100 feet would be required for the main and lateral pipelines. In areas of level terrain and stable soil conditions, the amount of disturbance of the temporary ROWs may be reduced, however, any potential reductions would not be known until after detailed alignment surveys and project design have been completed.

The permanent ROW needed for power line combinations containing 230 kV and/or 69 kV conductors would be 100 feet in width. This width is required for safety considerations to allow for displacement of the conductors. Only a portion of the permanent ROWs would be disturbed for installation of power poles and access roads where needed. The permanent ROWs for the power lines carrying only 25 kV are 50 feet in width. Temporary ROWs for the power lines are not required because the permanent ROWs are sufficient for construction needs.

In connection with the development of the Draft PA, the BLM identified 15 federally recognized Indian tribes with a traditional or historic connection to the areas potentially impacted by the proposed project. The BLM has initiated government-to-government consultation and invited those 15 tribes to sign the PA as concurring parties. The BLM has also granted consulting party status to certain interested organizations, groups, and agencies that have requested such status for the Section 106 process.

The Draft PA describes the roles and responsibilities of the signatories, the procedures and standards for determining the areas of potential effects from the project for direct, visual, indirect and cumulative effects. This document also describes the roles of Indian tribes and consulting parties in the Section 106 consultation process, and describes the procedures that will be used to encourage participation and take into account the comments of the public. The Draft PA also describes procedures for identifying historic properties that may be affected by the project, determine the eligibility of such properties for the National Register of Historic Places, assessing effects from the project to qualified historic properties, and seeking ways to avoid, minimize, mitigate or otherwise resolve any identified adverse effects to such properties. The Draft PA provides procedures for dealing with unanticipated discoveries of cultural resources, monitoring certain segments of construction by qualified archaeologists and Indian tribal monitors, resolving disputes among the signatories and concurring parties, and otherwise comply with Section 106 obligation.

The BLM notified the public of nine scoping meetings that were held in various communities in Clark, Lincoln, and White Pine counties (Nevada) and Tooele and Juab counties (Utah) between April 26 and May 11, 2005. The public was offered the opportunity to provide oral and written comments at the scoping meetings. A total of 648 individuals attended the scoping meetings, of which 210 individuals provided oral comments. During this first scoping period a total of 954

locations/scenarios; and a no action alternative.

A programmatic agreement is a program alternative allowed under the regulations of the Advisory Council on Historic Preservation (ACHP) for complying with the historic properties review process required of every Federal undertaking pursuant to section 106 of NHPA and its implementing regulations (36 CFR 800.14). When executed by the BLM, the Nevada State Historic Preservation Officer (SHPO), the U.S. Army Corps of Engineers, ACHP, and SNWA, the terms of the executed PA will set forth the conditions for satisfying the SNWA Project's obligations under section 106 of the NHPA.

Under the proposed action, SNWA could be granted a ROW that would permit the development and operation of a system of regional water facilities that could be used to convey up to 217,655 acre-feet-per-year (afy) of groundwater rights, including 184,655 afy of SNWA groundwater rights (if permitted by the NSE) with the remaining capacity reserved for future use by Lincoln County. The exact amount of groundwater available to the proposed project is dependent upon the future action by the NSE. The EIS and ROW application do not authorize or address permitting of water rights. The NSE is solely responsible for those issues.

The proposed ROW project would include approximately 306 miles of a buried water pipeline between 16 and 84 inches in diameter; approximately 323 miles of 230 kilovolt (kV), 69 kV and 25 kV overhead power lines; 2 primary electrical substations, 5 secondary substations, 3 pressure-reducing facilities; 5 pumping stations; 6 regulating tanks; a 40-million-gallon-per-day buried storage reservoir; a 165 million-gallon-per-day water treatment facility; and associated access roads.

This is the initial EIS in a tiered NEPA evaluation process. As described in Council on Environmental Quality Regulations, a tiered NEPA process can be used for Proposed Actions such as the SNWA Project when specific locations have not been defined for all phases. Under NEPA, tiering involves a two-fold approach wherein general analyses are first covered in a broad EIS and more detailed issues are tiered (referenced) to that broader EIS. Once the broader EIS is completed, subsequent narrower statements or environmental assessments incorporate the general discussions from the broader EIS by reference, allowing the subsequent document to concentrate on the issues specific to the project or project phase. The NEPA regulations encourage Federal agencies to tier environmental documents for multi-stage projects to eliminate repetitive discussions of the same issues and to focus on the issues that are ready for decision at each level of environmental review.

This EIS is broad in scope and evaluates the potential environmental effects of granting SNWA's proposed ROW, including: (1) Pumping up to 184,655 afy of SNWA groundwater rights (if permitted by the NSE); and (2) Construction of the SNWA Project's proposed main pipeline, power facilities, and water storage and treatment facilities which are part of the current ROW request. These mainline facilities are not all of the facilities ultimately required for construction and operation of the SNWA Project, if fully developed. Full development of the SNWA Project would likely require between 108 and 131 groundwater production wells, 100–250 miles of collector pipeline and overhead power lines, and 2 additional pumping stations and electrical substations. The specific locations of these additional facilities are dependent upon future rulings of the NSE (whether and where the SNWA's groundwater right applications are granted), exploratory drilling (which would determine where SNWA can best access its groundwater rights), and agency agreements (SNWA may agree to change the location, timing, and quantity of pumping to minimize or mitigate effects to sensitive resources). When SNWA later applies for site-specific ROWs for these additional groundwater production wells and associated facilities, then additional NEPA compliance, tiered to this EIS, would consider the site-specific effects of future facility construction and operation. The sources of water for the reserved Lincoln County capacity have not been determined at this time, and would be subject to additional NEPA compliance, tiered to this EIS, before it could be conveyed and delivered by the SNWA Project.

A permanent ROW of up to 100 feet in width and temporary construction ROWs of an additional 100 feet would be required for the main and lateral pipelines. In areas of level terrain and stable soil conditions, the amount of disturbance of the temporary ROWs may be reduced, however, any potential reductions would not be known until after detailed alignment surveys and project design have been completed.

The permanent ROW needed for power line combinations containing 230 kV and/or 69 kV conductors would be 100 feet in width. This width is required for safety considerations to allow for displacement of the conductors. Only a portion of the permanent ROWs would be disturbed for installation of power poles and access roads where needed. The permanent ROWs for the power lines carrying only 25 kV are 50 feet in width. Temporary ROWs for the power lines are not required because the permanent ROWs are sufficient for construction needs.

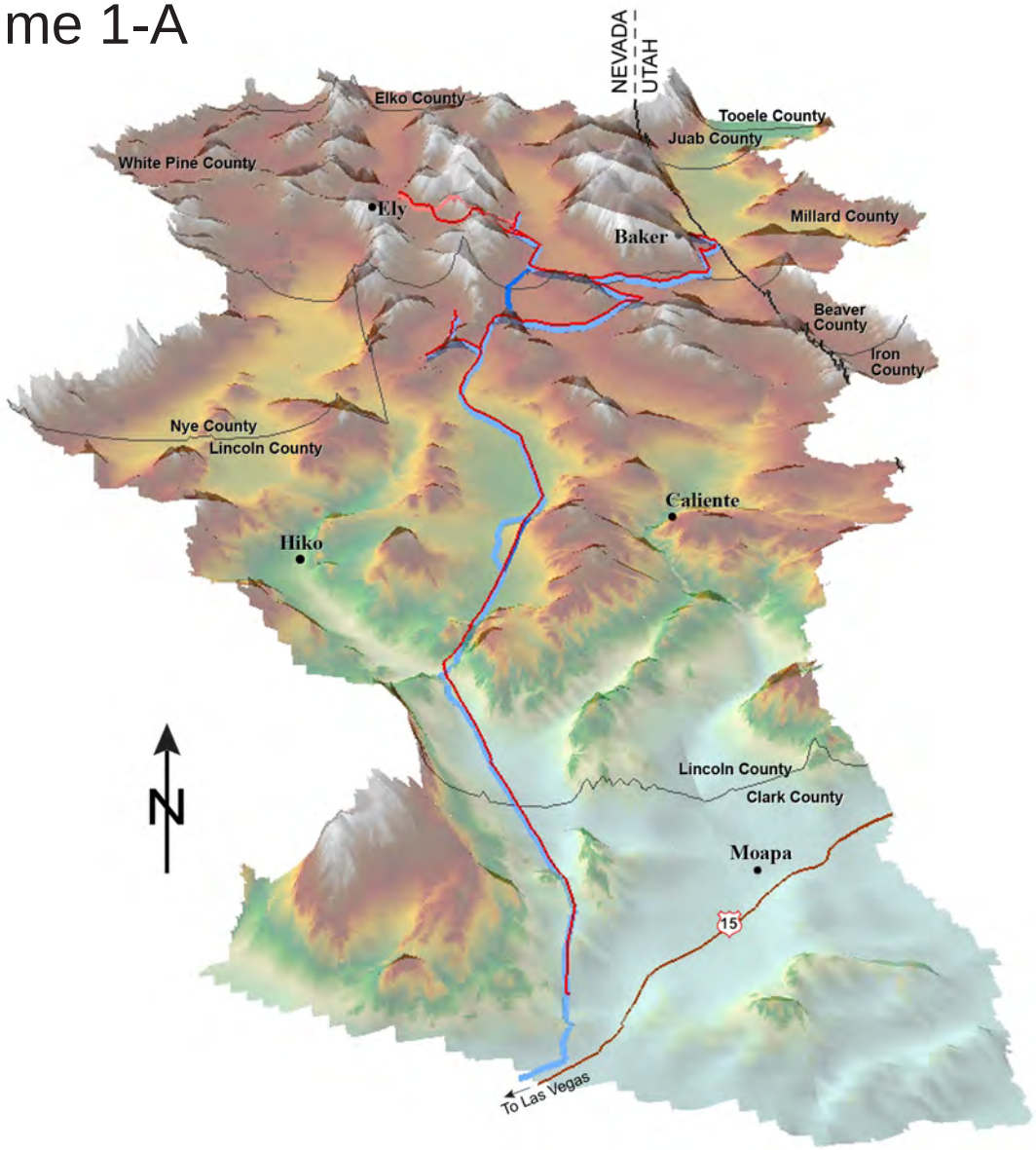
In connection with the development of the Draft PA, the BLM identified 15 federally recognized Indian tribes with a traditional or historic connection to the areas potentially impacted by the proposed project. The BLM has initiated government-to-government consultation and invited those 15 tribes to sign the PA as concurring parties. The BLM has also granted consulting party status to certain interested organizations, groups, and agencies that have requested such status for the Section 106 process.

The Draft PA describes the roles and responsibilities of the signatories, the procedures and standards for determining the areas of potential effects from the project for direct, visual, indirect and cumulative effects. This document also describes the roles of Indian tribes and consulting parties in the Section 106 consultation process, and describes the procedures that will be used to encourage participation and take into account the comments of the public. The Draft PA also describes procedures for identifying historic properties that may be affected by the project, determine the eligibility of such properties for the National Register of Historic Places, assessing effects from the project to qualified historic properties, and seeking ways to avoid, minimize, mitigate or otherwise resolve any identified adverse effects to such properties. The Draft PA provides procedures for dealing with unanticipated discoveries of cultural resources, monitoring certain segments of construction by qualified archaeologists and Indian tribal monitors, resolving disputes among the signatories and concurring parties, and otherwise comply with Section 106 obligation.

The BLM notified the public of nine scoping meetings that were held in various communities in Clark, Lincoln, and White Pine counties (Nevada) and Tooele and Juab counties (Utah) between April 26 and May 11, 2005. The public was offered the opportunity to provide oral and written comments at the scoping meetings. A total of 648 individuals attended the scoping meetings, of which 210 individuals provided oral comments. During this first scoping period a total of 954

Clark, Lincoln, and White Pine Counties Groundwater Development Project Draft Environmental Impact Statement

Volume 1-A



Bureau of Land Management

June 2011

DES 11-18

Cooperating Agencies:

Army Corps of Engineers
Bureau of Indian Affairs
Bureau of Reclamation
Central Nevada Regional Water Authority
Clark County, NV
Juab County, UT
Lincoln County, NV
Millard County, UT
National Park Service
Nellis Air Force Base
Nevada Department of Wildlife
State of Utah
Tooele County, UT
U.S. Fish and Wildlife Service
U.S. Forest Service
White Pine County

BLM

Nevada Groundwater Projects Office

financial responsibility for section 106 compliance in accordance with the ACHP's regulations, and further, who may delegate to one or more appropriate BLM officials any responsibility or action required or allowed of an agency official under those regulations; and

WHEREAS, BLM has assigned to BLM Ely primary responsibility both for project management (including being the "point of contact" for BLM for purposes of this Agreement as provided in Section M, herein) and for ensuring BLM's compliance with terms of this Agreement, and

WHEREAS, the GWD Project involves only the supply and distribution of water through facilities in Nevada, BLM's ROW grant will not give SNWA rights to exploit oil, natural gas or mineral resources; and

WHEREAS, BLM has determined that construction, installation, operation or maintenance of the GWD Project may cause effects to historic properties and accordingly, prior to issuing to the proponent any ROW over BLM-managed lands, BLM will take into account such effects and comply with section 106, through the procedures described in this Agreement, as authorized by and consistent with the BLM's nationwide programmatic agreement titled *Programmatic Agreement Among The Bureau of Land Management, The Advisory Council On Historic Preservation, And the National Conference of State Historic Preservation Officers Regarding the Manner In Which BLM Will Meet Its Responsibilities Under the National Historic Preservation Act*, dated March 26, 1997 ("BLM NPA") and the State Protocol Agreement dated October 26, 2009, between the BLM Nevada and the Nevada State Historic Preservation Officer ("SHPO"), (the "Nevada State Protocol"), both of which documents, or any valid successor to either agreement, are incorporated herein by reference; and

WHEREAS, although no part of the GWD Project will be located on tribal lands, in developing this Agreement in compliance with 36 C.F.R. § 800.14(b)(2)(i) and (f), BLM has made a reasonable and good faith effort to identify, and seek consultation with, every federally recognized Indian tribe that that has religious or cultural ties to, or whose direct ancestors had historic or pre-historic religious or cultural ties to, GWD Project lands, and that, because of such ties, may attach religious and cultural significance to historic properties that may be affected by the GWD Project, and BLM has identified under those criteria the fifteen tribes listed in Appendix C (the "Identified Indian Tribes"); and

WHEREAS, on February 23, 2007, BLM sent to each of the Identified Indian Tribes a letter explaining the nature of the proposed GWD Project, asking each of those tribes to provide any information they have about any historic properties which might be affected by the construction and operation of the GWD Project, and providing with that letter Project maps and contact information for the appropriate BLM contacts; and

WHEREAS, the BLM has initiated formal government-to-government section 106 consultation with each Identified Indian Tribe through the appropriate BLM manager(s) contacting that tribal government, or a person authorized by such government to speak for the tribe on section 106 matters, offering meetings between a BLM manager and that tribe's governing body to discuss any concerns the tribe may have regarding: (1) the GWD Project; (2) any historic properties of religious and cultural significance to that tribe that may be affected by the Project; and (3) the

Appendix C

List of Identified Indian Tribes for Section 106 Review and Tribal Consultation

As of January 1, 2011

1. Chemehuevi Indian Tribe of the Chemehuevi Reservation, California

Charles Wood, Chair
Chemehuevi Indian Tribe of the Chemehuevi Reservation
PO Box 1976
Havasu Lake, CA 92363

2. Colorado River Indian Tribes of the Colorado River Indian Reservation, Arizona and California

Eldred Enas, Chair
Colorado River Indian Tribes of the Colorado River Indian Reservation
26600 Mohave Road
Parker, AZ 85344

3. Confederated Tribes of the Goshute Reservation, Nevada and Utah

Amos Murphy, Chair
Confederated Tribes of the Goshute Reservation
PO Box 6104
Ibapah, UT 84034

4. Death Valley Timbi-Sha Shoshone Band of California

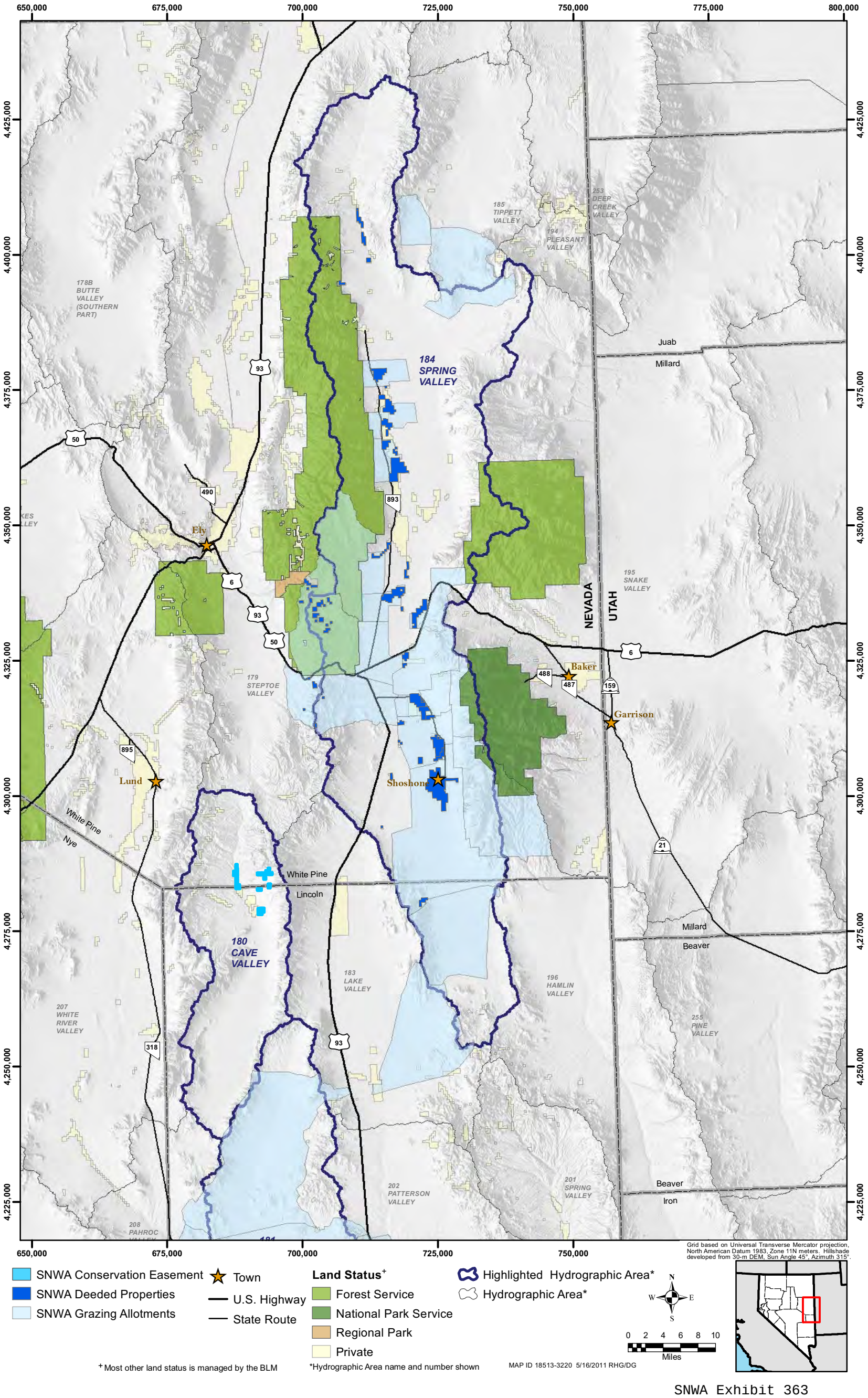
Joe Kennedy, Chair
Death Valley Timbi-Sha Shoshone Band of California
PO Box 206
900 Indian Village Road
Death Valley, CA 92328

5. Duckwater Shoshone Tribe of the Duckwater Reservation, Nevada

Virginia Sanchez, Chairwoman
Duckwater Shoshone Tribe of the Duckwater Reservation
PO Box 140068
Duckwater, NV 89314

Table 6-1 Conservation Initiatives in Which SNWA Voluntarily Participates

Conservation Agreements and Strategies	Conservation Initiatives	Implementation Teams for USFWS Recovery Plans
Conservation Agreement and Strategy for Least Chub *(Iotichthys phlegethontis)* in the State of Utah	Greater Sage-Grouse Conservation Plan for Nevada and Eastern California	Pahranagat Valley Native Fishes RIT
Conservation Agreement and Strategy for Columbia Spotted Frog *(Rana luteiventris)* in the State of Utah	Greater Sage-Grouse Conservation Plan for the Bi-State Plan Area of Nevada and Eastern California	White River Valley Native Fishes RIT
Bureau of Land Management National Sage-Grouse Habitat Conservation Strategy	Nevada Sage-Grouse Conservation Project	Big Springs Spinedace RIT
	White Pine County Portion (Lincoln/White Pine Planning Area) Sage-Grouse Conservation Plan	
	Lincoln County Sage-Grouse Conservation Plan	
	Candidate Conservation Agreement with Assurances	



SNWA Conservation Easement
SNWA Deeded Properties
SNWA Grazing Allotments

Town
U.S. Highway
State Route

Land Status+
Forest Service
National Park Service
Regional Park
Private

Highlighted Hydrographic Area*
Hydrographic Area*

+ Most other land status is managed by the BLM

*Hydrographic Area name and number shown

Grid based on Universal Transverse Mercator projection, North American Datum 1983, Zone 11N meters. Hillshade developed from 30-m DEM, Sun Angle 45°, Azimuth 315°.

N
W
E
S

0 2 4 6 8 10
Miles

MAP ID 18513-3220 5/16/2011 RHG/DG

SNWA Exhibit 363

Figure 6-1
SNWA Northern Properties and Associated Grazing Allotments

Sustainability in Action

Three companies, one job:
Working for a **sustainable** Nevada

LVVWD • SNWA • SPRINGS PRESERVE

SNWA Exhibit 414

Our success

Energy:
Combined, our solar facilities generate more than 6.7 million kilowatt hours of clean electricity, enough to power nearly 450 average Southern Nevada homes annually.

Environment:
In its second year, the Cactus Grant Rescue Program has raised approximately $2,500 to help local science teachers purchase classroom supplies thanks to proceeds raised from the sale of salvaged or rescued cacti species.

The Environmental Monitoring and Management Division identified more than 160 species of birds and more than 180 species of plants—in addition to amphibians, bats, fish, reptiles and small mammals—at the Las Vegas Wash. The division also works closely with Surface Water Resources to study riparian areas such as the Virgin and Muddy Rivers and the Mexican Delta. Staff also monitor biological resources, water quality and existing water resources to protect our environment and safeguard our current resources.

THE SECRETARY OF THE INTERIOR
WASHINGTON

CITATION

PARTNERS IN CONSERVATION AWARD

LAS VEGAS WASH COORDINATION COMMITTEE

In recognition of the outstanding contributions of the Las Vegas Wash Coordination Committee, a partnership of 30 local, state, and Federal agencies, environmental groups, business owners, and concerned citizens, that collaboratively transformed an environmental blight into an important ecological resource for Southern Nevada. Early in its 11 year history, the Committee created the Las Vegas Wash Comprehensive Adaptive Management Plan containing 44 specific actions related to water quality, habitat management, erosion control, and other key Wash issues. The Plan serves as the basis from which to implement the actions and as a guidance instrument from which to develop long-term management strategies with full stakeholder involvement. Accomplishments include channel stabilization, re-vegetation, water quality improvement, wildlife monitoring, cultural resource management, and creating one of the most unique wetlands parks in the country. Nearly 200 million gallons of water move through the Wash each day, eroding the banks of the Wash, destabilizing the channel, and increasing sedimentation in Lake Mead. To protect the Wash from further erosion, 22 erosion control structures are planned. There are now 12 weirs along a 6-mile section of the Wash, with an additional three constructed by the National Park Service near Lake Mead. The Bureau of Reclamation construction crews have fortified more than 27,000 linear feet of shoreline with concrete and rock rip-rap that is often recycled from imploded or remodeled casinos along Las Vegas Boulevard.

The Wash is of great importance to local citizens and for that reason the wetlands park contains more than 4 miles of constructed trail for wildlife viewing and recreation. Fifteen volunteer planting events have allowed nearly 5,000 people to lend a hand in planting native plants to beautify and help stabilize the Wash area. For their extraordinary contributions to solving long-standing water resource challenges facing southern Nevada and preserving a valuable ecological resource for present and future generations, the Las Vegas Wash Coordination Committee is awarded the U.S. Department of the Interior Partners in Conservation Award.

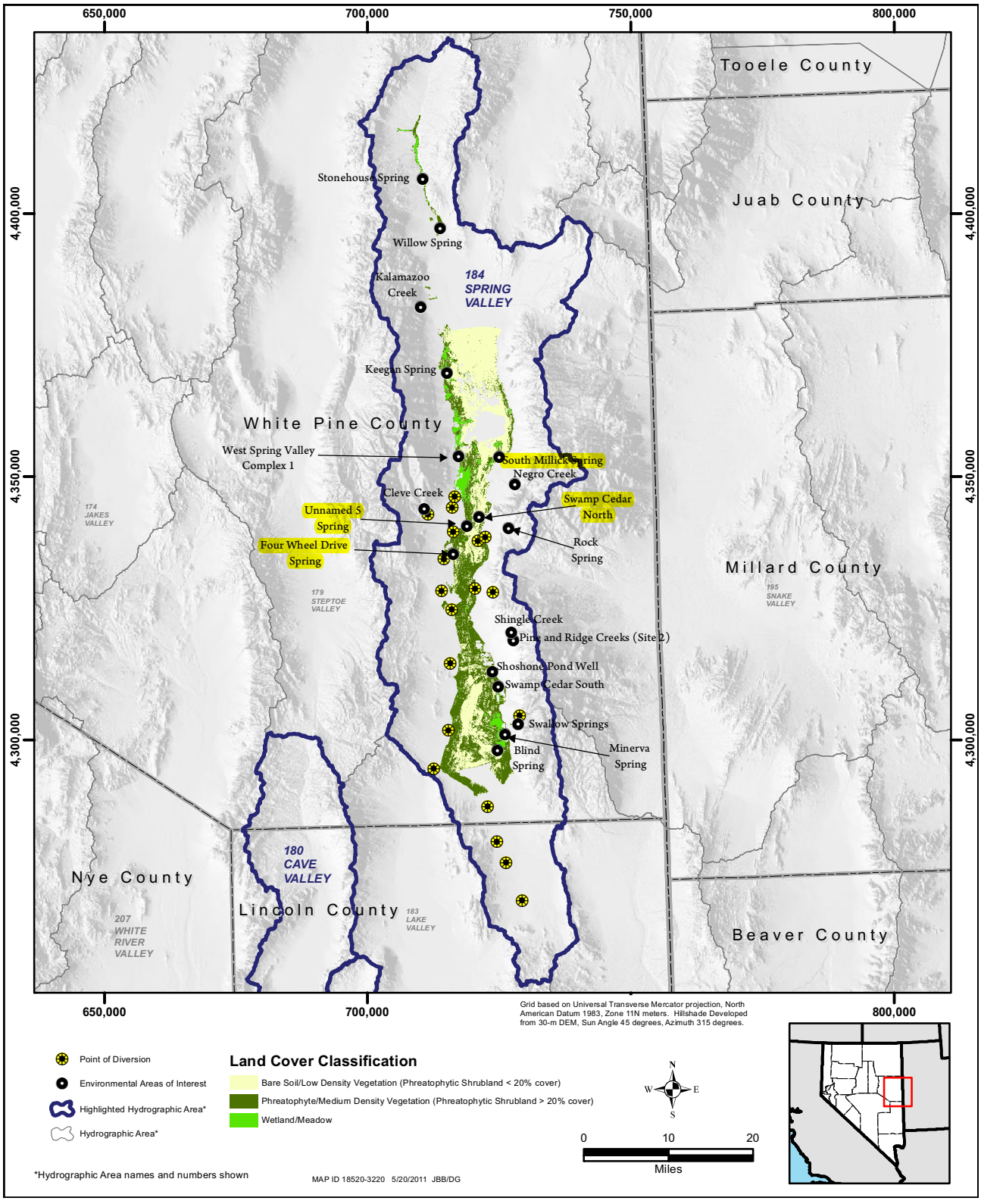


Figure 2-1
ET Land Cover Mapping, Environmental Areas of Interest and POD Locations in Spring Valley

SNWA Exhibit 363

Table 2-2 Spring Valley Environmental Areas of Interest: Groundwater-Influenced Habitats and Aquatic Biota of Interest

Site Name	Geographic Location	Groundwater Influenced Habitat	Aquatic Biota of Interest	Aquatic Special Status Species
Blind Spring	Valley Floor	Spring, Wetland	Amphibian	Northern leopard frog
Cleve Creek	Originates in Mtn Block	Stream	Game fish	Not present
Four Wheel Drive Spring	Alluvial Fan / Valley Floor	Spring	Not present	Not present
Kalamazoo Creek	Originates in Mtn Block	Stream	Game fish	Not present
Keegan Spring Complex	Alluvial Fan / Valley Floor	Spring, Wetland, Meadow	Transplanted Fish, Amphibian	Relict Dace, Northern leopard frog
Minerva Spring Complex	Alluvial Fan / Valley Floor	Spring, Wetland, Meadow	Amphibian, Springsnail	Northern leopard frog
Negro Creek	Originates in Mtn Block	Stream	Game fish	Not present
Pine and Ridge Creeks	Originates in Mtn Block	Stream	Native fish	Bonneville cutthroat trout [Lower limit: upstream of diversion pipeline, approx 7,100 ft-amsl]
Rock Spring	Mtn Block	Spring	Springsnail	Bifid duct pyrg
Shingle Creek	Originates in Mtn Block	Stream	Game fish	Not present
Shoshone Ponds	Alluvial Fan / Valley Floor	Pond, Springbrook, Wetland, Meadow [Well source]	Transplanted Fish, Amphibian	Pahrump poolfish, Relict dace, Northern leopard frog
South Millick Spring	Valley Floor	Spring	Amphibian	Northern leopard frog
Stonehouse Spring Complex	Alluvial Fan / Valley Floor	Spring, Wetland, Meadow	Transplanted fish, Springsnail	Relict Dace
Swallow Spring	Alluvial Fan	Spring	Not present	Not present
Swamp Cedar North	Valley Floor	Woodland	Not present	Not present
Swamp Cedar South	Alluvial Fan / Valley Floor	Woodland	Not present	Not present
Unnamed 5 Spring	Valley Floor	Spring	Amphibian, Springsnail	Northern leopard frog
West Spring Valley Complex	Alluvial Fan / Valley Floor	Spring, Wetland, Meadow	Amphibian, Springsnail	Northern leopard frog
Willow Spring	Alluvial Fan / Valley Floor	Spring	Springsnail	Not present

Spring, Cave, Dry Lake and Delamar Valleys

SOUTHERN NEVADA
WATER AUTHORITY