

**CONFEDERATED TRIBES OF THE GOSHUTE RESERVATION
DUCKWATER SHOSHONE TRIBE
ELY SHOSHONE TRIBE**

REBUTTAL EXHIBIT LIST

IN THE MATTER OF APPLICATIONS 53987 THROUGH 53992,
INCLUSIVE, AND 54003 THROUGH 54021, INCLUSIVE FILED TO
APPROPRIATE THE UNDERGROUND WATERS OF SPRING VALLEY,
CAVE VALLEY, DELAMAR VALLEY AND DRY LAKE VALLEY
HYDROGRAPHIC BASINS (180, 181, 182 AND 184), LINCOLN COUNTY
AND WHITE PINE COUNTY, NEVADA

HEARING DATE: Scheduled for September 25, 2017 through October 6, 2017

No.	Title	Off.	Ad.
CTGR_EXH_018	Expert Report: <i>Methodology and Process Required to Establish Quantitative Threshold Values for Mitigation to Protect Existing Water Rights and Unreasonable Impacts to the Environment</i> , by Stetson Engineers, Inc., June 29, 2017.		
CTGR_EXH_019	Curriculum Vitae of Steve Reich, Principal in Stetson Engineers, Inc.		
CTGR_EXH_020	Curriculum Vitae of Jeff Symons, Associate Engineer, Stetson Engineers Inc.		
CTGR_EXH_021	A. National Register of Historic Places Registration Form – Completed and Approved; B. Determination of Eligibility Notification, National Register of Historic Places; C. National Register of Historic Places Program: Weekly List, by Dr. Monte Sanford, Consultant for the Tribes		

	Rebuttal Exhibits		
CTGR_EXH_022	Expert Rebuttal Report: Analysis of SNWA's June 2017 Technical Analysis Report Supporting the Spring Valley and Delamar, Dry Lake, and Cave Valleys, Nevada, 3M Plans, by Stetson Engineers, Inc., August 10, 2017.		
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CTGR_EXH_024	Intentionally left blank		

Respectfully submitted,

DATED: August 10, 2017

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CTGR_EXH_022

Rebuttal Report

Analysis of SNWA's June 2017 Technical Analysis Report Supporting the Spring Valley and Delamar, Dry Lake, and Cave Valleys, Nevada, 3M Plans

Prepared for

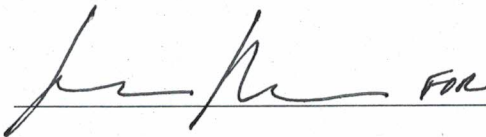
The Confederated Tribes of the Goshute Reservation

By.

Stetson Engineers Inc.

Carlsbad, California

August 10, 2017

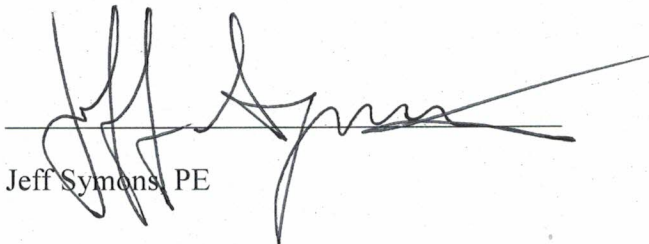


FOR

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ES. EXECUTIVE SUMMARY

SNWA submitted *The 2017 Technical Advisory Report Supporting the Spring Valley and Delamar, Dry Lake, and Cave Valleys, Nevada, 3M Plans* (Technical Advisory Report or TAR) in partial response to the December 13, 2013 Seventh Judicial District Court of the State of Nevada decision to remand Rulings 6164-6167 (Remand Order) to the Nevada State Engineer (NSE or Engineer) on four issues. The TAR presents SNWA's evidence and scientific rationale for thresholds, triggers, and monitoring, management, and mitigation actions in response to the Remand Order. The TAR asserts that in accordance with the Remand Order, the thresholds, triggers and actions are designed to avoid unreasonable effects from the SNWA Groundwater Development Project (GDP) to hydrologic and environmental resources of Nevada and Utah, and requests that the NSE adopt the concurrently submitted 2017 Spring Valley 3M Plan as part of the rulings after the Remand Order hearings are complete (SNWA, 2017).

The TAR's basis for establishing quantitative thresholds and triggers is an unacceptable definition of unreasonable effects. As stated in the TAR, the Applicant defines unreasonable effects as: jeopardy to federally listed species, basin-wide extirpation of native aquatic-dependent special status animal species, elimination of habitat types from a hydrographic basin, and excessive loss of shrub cover that results in bare ground (SNWA, 2017, page 2-2). These definitions fail to meet the requirements of the Rulings and the Remand Order. We demonstrate that the proposed standards are skewed such that irreparable harm will occur to the "ecological health" of the basins.

The TAR presents a conceptual approach used by the Applicant to identify thresholds, triggers, and monitoring, management, and mitigation actions. The systematic process that is presented in the TAR is flawed in that it does not incorporate an effects analysis in the establishment of investigative triggers and environmental monitoring locations. The proposed methodology to establish quantitative thresholds and triggers does not rely on predictive analysis based on either analytical or numerical groundwater models specific to the GDP. There are no site-specific analyses of impacts to senior water rights, environmental resources, or areas of cultural interest. Instead, without knowing the range or magnitude of impacts, the applicant proposes that quantitative thresholds and triggers, intended to avoid unreasonable effects, can be established in a general fashion for the entire project area.

The TAR further suggests that mitigation or action items, based on non-site-specific thresholds and triggers, may be followed to avoid unreasonable effects. While we argue that SNWA's definition of unreasonable effects is flawed, the TAR is unable to quantify the different types and related costs associated with mitigation. Without a project specific effect analysis, the physical and economic feasibility of the GDP can not be reviewed by the NSE to make a sound decision regarding water rights 6164-6167.

Environmental and cultural resources' investigation and mitigation triggers proposed in the TAR remain arbitrary because the Applicant has proposed a 3M Plan based on arbitrary standards. The proposed triggers and mitigation are either premature or designed to monitor resources to prevent basin wide extirpation or elimination, of which neither condition is an acceptable unreasonable effect. Mitigation triggers for environmental areas or protected species are not established because the Applicant does not have the information: the regulatory agency responsible for establishing those triggers requires a site-specific basin level model to conduct an effects analysis; or, a cultural site inventory and assessments that are not complete; or, in the case of non-federal environmental areas (habitat types and native aquatic dependent special status species), an objective standard for unreasonable effects has not yet been defined. Therefore, triggers are either arbitrary or not yet established, and granting the application for an appropriation remains premature.

Contrary to the TAR, it is possible to do what the Applicant has failed to do: provide a detailed and adequate 3M Plan proposal regarding triggers, monitoring, mitigation, and management of federally regulated resources (including cultural sites), mesic habitat, native aquatic dependent special status species, and terrestrial woodland habitat. The TAR states that the Swamp Cedar area was designated as an Area of Critical Environmental Concern (ACEC) by the BLM for its cultural resources and its unique plant community. In fact, Figure 1 shows the extent of the Swamp Cedar ACEC is a subset of the larger Swamp Cedar Tribal Cultural Property (TCP), also named *Bahsahwahbee*, which is listed in the National Register of Historic Places (NRHP) under Criteria A (CTGR, 2017). The TAR lists only the Swamp Cedar or Rocky Mountain Juniper as the unique plant community to be protected, a species which the Applicant asserts "is not groundwater dependent" (TAR, Section 6.3.4.1). There are two problems with this extraordinarily limited identification of resources worthy of protection. First, the plan for the Swamp Cedar ACEC is not sufficient to protect the listed cultural resources within its boundary. Second, the plan for terrestrial woodland habitat is inadequate in its characterization of the habitat, and the triggers and mitigation are not linked to an effects analysis.

The Applicant fails to establish an objective standard regarding unreasonable effects to the environment by proposing an unacceptably low standard for environmental effects. In order to prevent these "unreasonable effects" from occurring, the Applicant proposes arbitrary investigation and mitigation triggers that are not linked to an effects analysis. The investigation triggers determine when investigation will be initiated to avoid mitigation thresholds from being reached. Unfortunately, investigation triggers tied to the baseline monitoring data in areas that are predicted to have drawdown beyond that already established in previous investigations have no value. The TAR's lack of a site-specific effect analysis obfuscates the amount of mitigation that will be required to avoid conflict with senior water right holders.

The NSE should withhold the granting of the water rights until site specific effect analyses, based on an acceptable definition of unreasonable effects, are completed by the applicant. Based on predictive tools and models, the Applicant may quantify impacts to specific senior water rights, federally recognized cultural sites, and other regulated resources. The quantified extent and magnitude of impacts to all resources becomes the basis for determining the location, types, and amount of mitigation required due to GDP impacts. Without a quantification of impacts and mitigation, the project is incomplete and its physical and economical feasibility may not be determined.

1.0 OVERVIEW

The *2017 Technical Advisory Report Supporting the Spring Valley and Delamar, Dry Lake, and Cave Valleys, Nevada, 3M Plans* (Technical Advisory Report or TAR) was developed in response to the December 13, 2013 Seventh Judicial District Court of the State of Nevada decision to remand Rulings 6164-6167 (Remand Order) to the Nevada State Engineer (NSE or Engineer) on four issues. In part, the Court remanded the Rulings in order to “define standards, thresholds or triggers so that mitigation of unreasonable effects from pumping of water are neither arbitrary nor capricious.” The TAR presents SNWA’s evidence and scientific rationale for thresholds, triggers, and monitoring, management, and mitigation actions in response to the Remand Order.

The TAR asserts that in accordance with the Remand Order, the thresholds, triggers and actions are designed to avoid unreasonable effects from the SNWA Groundwater Development Project (GDP) to hydrologic and environmental resources of Nevada and Utah, and requests that the NSE adopt the concurrently submitted 2017 Spring Valley 3M Plan as part of the rulings after the Remand Order hearings are complete (SNWA, 2017).

1.1 UNREASONABLE EFFECTS

Defining unreasonable effects forms the basis for the thresholds, triggers and monitoring, management, and mitigation actions presented in the TAR (SNWA, 2017). The defining of a standard for what is unreasonable that can be used to develop triggers and mitigation actions is a fundamental requirement in the Remand Order (Remand Decision, 2013):

“The Engineer found that lowering the Spring Valley water table by 50 feet is ‘reasonable,’ but has avoided any mention of what is unreasonable. Nor did he state how monitoring will be accomplished, or what constitutes an impact, potential or otherwise. There is no standard to know how much of an impact is unreasonable to leopard frogs, or to swamp cedars, before mitigation is necessary. The Engineer gives a vague statement of how mitigation can be done, but has no real plan or standard of when mitigation would be implemented. Without a stated, objective standard, the ruling is arbitrary and capricious.”

The TAR states that the definition of unreasonable effects is consistent with the requirements to protect senior water rights, protectable interests in existing domestic wells, the public interest, and environmental soundness under Nevada water law. As stated in the TAR, the Applicant defines unreasonable effects as: jeopardy to federally listed species, basin-wide extirpation of native aquatic-dependent special status animal species, elimination of habitat types from a hydrographic basin, and excessive loss of shrub cover that results in bare ground (SNWA, 2017, Section 2.2). These definitions fail to meet the requirements of the Rulings and the Remand Order. Under these definitions, mitigation would be delayed to the point that it would become impossible to achieve and the “unreasonable effects” would occur long before SNWA

plans to take any action. We demonstrate in this rebuttal that SNWA’s plan again fails to meet the requirement that, as a condition of approval of applications to withdraw groundwater, there must be reasonable standards to determine what effects are unreasonable and what mitigation measures must be employed. We demonstrate that under SNWA’s proposed plan, unreasonable effects will occur well before reaching the Applicant’s standards.

Nevada law requires the NSE to oversee an environmentally sound stewardship of the water (Remand Decision, 2013). In Ruling 6164, the NSE predicated his decision on the programmatic level effects analysis, stating under the heading of “A Viable Ecosystem Will Remain”, that “impacts will not result in habitat or population reductions throughout Spring Valley and adjacent basins, but will be more limited in scope” and that, “despite any increase in depth to water, viable plant and wildlife communities will remain” (NSE, 2012).

The Stipulation for Withdrawal of Protests defines the common goal of the parties as management “of the development of groundwater by SNWA in the Spring Valley HB in order to avoid unreasonable adverse effects to wetlands, wet meadow complexes, springs, streams, and riparian and phreatophytic communities (hereafter referred to as Water-dependent Ecosystems) and *maintain the biological integrity and ecological health of the Area of Interest over the long term* (emphasis added).” (Stipulation, 2006)

The Applicant’s plan fails to meet the requirements of Ruling 6164 because it will likely “result in habitat or population reductions,” fails to meet the order of the Court in that it fails to establish an objective standard and will not avoid unreasonable adverse effects, and fails to meet the requirements of the Stipulation reached by Applicant and the United States in that it will not “maintain the biological integrity and ecological health” outside of select locations. The Applicant’s definition of unreasonable effects should not be accepted by the NSE. The standards that are proposed are skewed such that irreparable harm will occur to the “ecological health” of the basins prior to reaching the proposed standard. If accepted, the standards violate the NSE’s requirement to oversee an environmentally sound stewardship of the water, and are not in the public interest.

1.2 CONCEPTUAL APPROACH TO ESTABLISH THRESHOLDS, TRIGGERS, AND MONITORING, MANAGEMENT, AND MITIGATION ACTIONS

Section 3 of the TAR presents the conceptual approach used by the Applicant to identify thresholds, triggers, and monitoring, management, and mitigation actions. The systematic process that is presented in the TAR is flawed in that it does not incorporate an effects analysis in the establishment of investigative triggers and environmental monitoring locations, and presents no predictive analysis of the extent to which mitigation actions will be required. The TAR only describes the process by which quantitative triggers will be established, but does not establish these triggers. Instead, the project proponent should make public their analysis of the basin level

effects of this drawdown or water withdrawal within the project area through subsequent tiers of analysis. Regulatory agencies (federal and state) that oversee water rights, jurisdictional wetlands, federal and state listed species, cultural resources, etc. would then engage in consultations with the project operator, and determine the extent of predicted and allowable impact. The results of these consultations would then become constraints that establish thresholds and triggers for adaptive management of the resources. The systematic approach itemized in Section 3.1 of the TAR, however, fails to incorporate an effects analysis into the process, despite having employed a programmatic level effects analysis in the Ruling and the pipeline EIS. The predicted change in groundwater levels from Alternative E at 75 years that was used in Chapter 3 (Water Resources) of the pipeline EIS is included in Figures 2-4. The effects analysis and regulatory consultations are inextricably tied to the determination of unreasonable effects, and subsequently to quantitative triggers and thresholds in the 3M Plans. Because the effects analysis is missing, the Applicant's plan fails to protect the public's interest.

It is also well documented that the Applicant has not selected all Points of Diversion (POD) that it deems necessary to withdraw the volume of water it seeks. The TAR describes the SNWA GDP POD as the 15 permitted in the application process with the Engineer (SNWA, 2017). These POD are shown in Figures 2-4. However, in Appendix E of the pipeline EIS, which is the SNWA Conceptual Plan of Development, the Applicant states that the final locations of the groundwater production wells and associated facilities to convey water into the primary system have not been determined (BLM, 2012a). Assumptions regarding the number of wells were made so that BLM could conduct a programmatic level environmental impact analysis of construction and operation of future facilities. The Applicant estimated that Spring Valley will have between 75 to 93 wells (BLM, 2012a). Therefore, the effects analysis done for the pipeline EIS is neither reflective of groundwater withdrawals from the POD in the Applications, nor is it an accurate representation of basin level effects from withdrawals from POD that have yet to be located.

The Applicant intends to secure the water rights based on analysis from groundwater development zones and regional modeling, then continue the effects analysis and negotiations with federal entities to site the groundwater development facilities in locations that have minimal impact to federal resources (listed species and federal water rights). Subsequent to obtaining the Right Of Way (ROW) for the production facilities, the Applicant will then be required to apply to modify the POD. The Engineer should withhold appropriation of water rights until the pipeline ROW process is complete, and the basin level effects analysis from actual POD can be considered for groundwater withdrawals. Otherwise, non-federal interests will only be tangentially represented in continued consultations regarding the ROW for groundwater development facilities. As stated in the Remand Order, the NSE will have "relinquished his responsibilities to others," since the locations of production facilities, modifications to the monitoring and mitigation plan, and ultimately the focus of effects analysis will be based on

federal interests only (Remand Decision, 2013). Several examples follow with respect to how the flaws in the Applicant's approach manifest themselves into triggers that ultimately remain arbitrary.

1.3 TAR PROPOSED APPROACH TO ESTABLISH THRESHOLDS AND TRIGGERS

The TAR proposes quantitative measures to monitor and avoid or eliminate conflicts with senior water rights and natural resources. The TAR fails to rely on a site-specific impact analysis to identify expected adverse effects to senior water rights, and instead attempts to meet the requirements of the Remand Order by "protecting" all resources within the Analysis Area¹. Generally, the management strategy is identical for all senior water rights within 10 miles of the proposed POD (TAR, Table 3-1), regardless of the physical or environmental conditions that control the occurrence and movement of surface water and groundwater. The applicant's management strategy asks the NSE to avoid the need for an impact analysis and asks for his office to trust SNWA to protect the State's interest for Spring Valley and Delamar, Dry Lake, and Cave Valleys.

The TAR proposes two types of triggers: investigation triggers and mitigation triggers. An investigation trigger is activated when a measured parameter falls below a defined level for a specific duration of time. A mitigation trigger identifies when a measured parameter falls below a specific value and mitigation action is required to avoid an unreasonable effect. Generally, the crossing of an investigation trigger initiates an investigation, while the crossing of a mitigation trigger initiates a mitigation action to avoid unreasonable effect.

The investigation triggers and mitigation triggers established in the TAR are not based on expected impacts at site-specific locations predicted through use of a groundwater model or other tools. Instead, both types of triggers are established based on a methodology that assumes all senior water right holders and environmental resources will accept SNWA's definition of unreasonable effects and proposed mitigation measures. The TAR's methodology is flawed because it is impossible to quantify the level of either investigation and/or mitigation that will be required in the future. Without knowing the amount of investigation and mitigation that may be required, it is impossible to determine the economical feasibility of the project or the ability of the project operator to protect public interests.

¹ Analysis Area encompasses the four project basins (Spring Valley and DDC) and four adjacent basin areas: northern Hamlin Valley, southern Snake Valley, southern White River Valley, and Pahrangat Valley (TAR, page 4-1).

1.4 TAR PROPOSED APPROACH TO MONITORING, MANAGEMENT, AND MITIGATION ACTIONS

The proposed management strategy includes: 1) investigation triggers; 2) mitigation triggers; and 3) preemptive mitigation preparation. The preemptive management action may be taken to avoid reaching a mitigation trigger and/or causing unreasonable effects. The TAR proposes that an investigation methodology will be followed when an investigation trigger is crossed. Included in the TAR's methodology after an investigation is triggered, is a step to compare the observed impact to simulated impacts from analytical tools and the numerical groundwater flow model for the GDP. The management action that will be followed may then include the use of a higher resolution local flow model (child model) that provides higher fidelity based on baseline and project related datasets. In fact, a higher resolution basin level model is already required for subsequent ROW considerations for groundwater development facilities (BLM, 2012b).

In summary, the TAR proposes the NSE adopt non-specific quantitative triggers and thresholds, which are not based on expected project-related impacts, and then suggests these triggers and thresholds will be refined in the future as data becomes available at site-specific locations. This is precisely the reason the Applicant's plan failed the first time it was proposed: the Applicant's first plan also said, in effect, that it would be developed over the course of time as the project was constructed. In contrast to this wait-and-see approach, the following section of our report describes how senior water rights and environmental resources would actually be protected based on site-specific impact analysis through implementation of a tiered review process similar to that used in the pipeline construction proposal. The NSE should demand the same level of analysis to protect the public's interest and the State of Nevada's natural resources as that required by the federal agencies. Specifically, site-specific impact analysis based on a refined groundwater model should be used to identify the locations and quantify the amount of impact to surface and subsurface senior water rights and environmental resources. Without this level of analysis, the NSE cannot determine if unreasonable effects are occurring and whether or not mitigation measures are feasible.

While the Applicant established standards as to when mitigation will be required and implemented, and has described a methodology to determine mitigation triggers, they have failed to set quantitative standards or triggers for mitigation actions. The Remand Order stated that, "if SNWA, and thereby the Engineer, has enough data to make informed decisions, setting standards and 'triggers' is not premature," and, "If there is not enough data (as shown earlier, no one really knows what will happen with large scale pumping in Spring Valley), granting the appropriation is premature." As previously described, the Applicant's investigation triggers, while numerical, are not founded on an effects analysis, and have no value other than to identify that drawdown is occurring outside of the baseline seasonally adjusted linear regression values. Quantitative

mitigation triggers have not been established at the location of each senior water right holder, since baseline assessments have not been completed. Mitigation triggers for environmental areas or protected species are not established because the Applicant does not have the information: the regulatory agency responsible for establishing those triggers requires a basin level model to conduct an effects analysis, or cultural site inventories and assessments are not complete, or in the case of non-federal environmental areas (habitat types and native aquatic dependent special status species), an objective standard for unreasonable effects has not yet been defined. Therefore, triggers are either arbitrary or not yet established, and granting the application for an appropriation remains premature.

2.0 QUANTITATIVE MEASURES PROPOSED IN THE TAR

As stated in the previous section's discussion of investigation and mitigation triggers, environmental and cultural investigation and mitigation triggers remain arbitrary because either the agency that has jurisdiction over determining the unreasonable effects has not yet made that determination, or the Applicant has defined unreasonable effects for the Engineer, and built the 3M Plan around an arbitrary standard. The Applicant also fails to incorporate an effects analysis to identify what effects can be expected where. Triggers and mitigation are either premature or designed to monitor resources to prevent basin wide extirpation or elimination, of which neither condition is an acceptable unreasonable effect. The following sections demonstrate that it is entirely possible to do what the Applicant has failed to do: provide a detailed and adequate proposal regarding triggers, monitoring, mitigation, and management of federally regulated resources (including cultural sites), mesic habitat, native aquatic dependent special status species, and terrestrial woodland habitat.

2.1 TRIGGERS AND MITIGATION FOR FEDERALLY LISTED SPECIES AND FEDERAL WATER RIGHTS

The TAR establishes investigation and mitigation triggers prematurely in the case of federally listed species and water rights. The US Fish and Wildlife Service (USFWS) was unable to conduct an analysis of the impacts associated to groundwater development facilities with the level of modeling used during the programmatic analysis of the pipeline project, and did not authorize incidental take associated to groundwater development facilities² or withdrawal. The only incidental take authorized was associated with the issuance of the ROW for the main conveyance pipeline³. The BLM, as a condition of approval in the Record of Decision (ROD) for the pipeline ROW, required the Applicant to produce basin level models for subsequent impact analysis associated to groundwater development (BLM, 2012b, Appendix C, Condition GW-WR-3b). Specifically, "the BLM will use the basin-specific models to critically evaluate the effectiveness of the proposed mitigation measures, ACMs, and other proposed adaptive management processes." The predicted basin level effects of groundwater withdrawals will be submitted to US Fish and Wildlife Service (USFWS) in a Biological Assessment (BA) that accompanies subsequent tiers of NEPA, as described in the EIS and ROD. Endangered Species Act (ESA) Section 7 consultations will continue, and a Biological Opinion (BO) will be

² Groundwater development facility locations are unknown. BLM states that approximately 71-88 wells (the majority of which will be in Spring Valley) will be located in "groundwater development zones" and their location will be determined in the future. (BLM, 2012b)

³ Although groundwater pumping facilities are discussed in the NEPA documentation, such groundwater facilities tied to the pipeline will require future compliance with NEPA. (BLM, 2012b)

published that presents the USFWS effects analysis, defines agreed upon mitigation and recommended conservation measures, and issues an incidental take statement⁴. The project will then be bound to the effects identified in consultation, and the “take” that is incidental to the project. Using exceedance of incidental take as a standard for unreasonable effects to federally listed species should be the foundation of quantitative triggers and thresholds⁵. Reasonable and prudent measures, terms and conditions, and monitoring requirements associated to the ROD for the groundwater pumping facilities should then be incorporated into the 3M Plan for the NSE’s approval. It would be more appropriate for the NSE to delay the granting of appropriations until the completion of Section 7 consultations, so that a true determination of unacceptable impacts to federally listed species can be ascertained from the completed biological and conference opinion. Since unacceptable effects to federally listed species is the jurisdiction of the USFWS, until federal consultations are complete, triggers, mitigation, and management actions associated to federally listed species established from programmatic analysis are arbitrary.

2.2 TRIGGERS AND MITIGATION FOR MESIC HABITAT AND NATIVE AQUATIC-DEPENDENT SPECIAL STATUS SPECIES

The TAR defines mesic habitat in the Spring Valley groundwater discharge area as being “composed of spring, seep, pond, wetland/meadow, marsh, and stream components that are often intermixed to form complexes.” The native aquatic-dependent special status animal species in the Spring Valley groundwater discharge area is the Northern leopard frog. Because Northern leopard frogs rely on Mesic habitat, the habitat and the frogs are considered together in the TAR (SNWA, 2017). There is no analysis provided that substantiates using the Northern leopard frog as an indicator species for mesic habitat ecosystem viability, particularly since the Northern leopard frog does not exist in all mesic habitat across Spring Valley. The TAR defines the unreasonable effect to native aquatic-dependent special status animal species habitat types as, “extirpation of native aquatic-dependent special status animal species from a hydrographic basin’s groundwater discharge area”, and “elimination of habitat types from a hydrographic basin’s groundwater discharge area” (SNWA, 2017). The TAR further describes the Applicant’s approach to protecting senior water rights as also avoiding unreasonable effects to environmental resources (SNWA, 2017). Subsequently, the TAR’s strategy for the monitoring, management, and mitigation for both mesic habitat and aquatic-dependent special status species in Spring Valley is focused on protecting senior water rights across Spring Valley, and

⁴ Incidental take is any take of listed animal species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the federal agency or applicant. Under the terms of sections 7(b)(4) and 7(o)(2) of the Endangered Species Act, taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking, provided that such taking is in compliance with the Terms and Conditions of an incidental take statement.

⁵ USFWS BO 1.1.1.1: “Because we are not authorizing incidental take for programmatic activities, this Opinion does not include reasonable and prudent measures and terms and conditions to minimize such take”

monitoring/enhancement located on SNWA's Robison Ranch McCoy Creek Property located in Management Block 3 (Figure 4).

According to the TAR, there are 10,350 total acres of mesic habitat. The Northern leopard frog is extant at 12 of 21 local environmental sites in Spring Valley, including the McCoy Creek Property, which contains approximately 930 acres of mesic habitat (9% of the total mesic habitat in Spring Valley). The McCoy Creek Property is in a location that is expected to experience minimal impacts associated with groundwater development based on previous impact analysis (BLM, 2012a). The majority of the project impacts are predicted in Management Blocks 1 and 2 (Figures 2 and 3). When the standard for an unreasonable impact is established as basin wide species extirpation and habitat elimination, what occurs to mesic habitat and native aquatic dependent special species outside of the SNWA owned McCoy Creek Property becomes irrelevant.

The Applicant asserts that protecting the specific yield of senior water right holders will ensure a viable ecosystem will remain at the other 11 locations where Northern leopard frogs exist, and the other 91% of mesic habitat. Given the mitigation triggers and mitigation options for senior water right holders, it is likely that drawdown in Management Blocks 1 and 2 will extend beyond the root zone of many species in a groundwater dependent ecosystem before unresolved conflict to water right holders is experienced. Since no effects analysis is presented in the TAR, and quantitative mitigation triggers are not established for senior water right holders, we must look to the analysis completed as part of the programmatic Tier 1 NEPA review. The USFWS tangentially considered impacts to mesic habitat as part of the analysis associated with the Ute ladies' -tresses, a federally listed plant species that does not have critical habitat designated. USFWS considered all of the hydric soils mapped in the EIS as potential species habitat⁶, which makes it a reasonable proxy for an effects analysis to mesic habitat.

The USFWS Biological Opinion concluded⁷ that:

- The regional CCRP model may underestimate project-induced drawdown of the water table in Spring Valley.
- Reduced discharge of springs in Spring Valley, up to and including the cessation of flow, is predicted to occur within the 75-year timeframe of the consultation.
- All valley floor springs and springs along the margin in Spring Valley are at risk of reduced discharge from groundwater pumping in Spring Valley.

⁶ Although wetland delineations have not been completed for Spring Valley, areas of hydric soils indicated in the FEIS were used as an approximation of habitats having the potential to support the species and, therefore, habitats in which adverse effects may occur (USFWS, 2012).

⁷ Chapter 11 of USFWS BO (USFWS, 2012).

- Drawdown of the magnitude predicted, albeit less than 3 m (10 feet) in some cases, would likely have a considerable impact on the depth to water (elevation of the water table) relative to the root zone of Ute ladies'-tresses.
- All associated wetland habitat, as well as riparian habitat associated with perennial streams, located in the valley floor and valley floor margins is at risk for groundwater level reductions well below the root zone of Ute ladies'-tresses.

The BLM ROD conditions the approval of the pipeline ROW on, amongst other items, a comprehensive Water Resources Monitoring Plan (WRMP) and wetlands monitoring plan (BLM, 2012b). The Applicant is required to develop a WRMP and wetlands monitoring plan for prior to completion of subsequent NEPA analysis for groundwater production, but does not incorporate them into the TAR presented to the NSE. Conditions of approval GW-WR-3a: Comprehensive WRMP, and GW-VEG-3: Wetlands Monitoring should be incorporated into the 3M Plan for mesic habitat.

Ultimately, an objective standard must be established for unreasonable effects to both mesic habitat and Northern leopard frog. With basin-wide elimination and species extirpation as the standard, the Applicant's TAR anticipates that only the McCoy Creek Property remains viable, a location that is not indicative of the basin wide effects to either Northern leopard frog or mesic habitat. The Applicant asserts that protection of senior water rights will prevent those impacts from occurring within mesic habitat without the required wetlands monitoring program. The USFWS analysis indicates that as proposed, impacts to mesic habitat may be significant. The Engineer should consider relying upon the Nevada Department of Wildlife (Habitat Division)⁸ to define unreasonable effects to habitat and species not provided federal oversight. The Applicant has demonstrated that it is unable or unwilling to accept a definition of unreasonable effects that is environmentally sound.

2.3 TRIGGERS FOR TERRESTRIAL WOODLAND HABITAT (SWAMP CEDAR ACEC)

Special designation areas are units of land that federal or state agencies manage for the protection and enhancement of specific resource values (BLM, 2012a). The TAR states that the Swamp Cedar area was designated as an Area of Critical Environmental Concern (ACEC) by the BLM for its cultural resources and its unique plant community. In fact, the EIS lists the protected resources in the Swamp Cedar ACEC as, "Rocky Mountain Juniper, other rare and endemic plant communities, and cultural resources" (BLM, 2012a). The Swamp Cedars area has now been designated as a Tribal Cultural Property and listed on the National Register of Historic

⁸ The Nevada Department of Wildlife (NDOW) Habitat Division's main objective is to ensure that Nevada wildlife habitats are productive and in good ecological condition. These are the same objectives the Engineer stated in his Ruling. Furthermore, the Habitat Division is responsible for reviewing, assessing and providing comments on all proposed land and water uses, providing fish and wildlife data to all entities for planning and decision making purposes. (NDOW, 2017)

Places (CTGR, 2017). The listed property boundaries differ substantially from the ACEC boundaries, and are subject to revision through either consultation or legal decision (Figure 3). The TAR lists only the Swamp Cedar or Rocky Mountain Juniper as the unique plant community to be protected. The TAR's Plan for the ACEC, and the entirety of terrestrial woodland habitat, is solely focused on the Rocky Mountain Juniper, a species which the Applicant asserts "is not groundwater dependent" (TAR, Section 6.3.4.1). There are two problems with this extraordinarily limited identification of resources worthy of protection. First, the plan for the Swamp Cedar ACEC is not sufficient in either size or scope to protect the listed cultural resources. Second, the plan for terrestrial woodland habitat is inadequate in its characterization of the habitat, and the triggers and mitigation are not linked to an effects analysis.

The National Historic Preservation Act (NHPA) mandates that federal agencies consider the effect of an undertaking on cultural resources that are listed on or eligible for the National Register of Historic Places (NRHP). The CTGR continue to insist that cultural sites are properly documented and considered in future NEPA tiers, and that appropriate monitoring and mitigation triggers established. The CTGR have previously submitted a listing of potential cultural sites and Tribal Cultural Areas (TCA) to the NSE to illustrate the incomplete nature of the Section 106 consultations (CTGR, 2010). Appendix A is a report of the Tribal Cultural Areas of the Goshute and Western Shoshone Peoples in Spring and Snake Valleys. The Swamp Cedars area has been listed as a Traditional Cultural Property (TCP) in the National Register (CTGR, 2017), and as such, is referred to as a TCP in this document and in Figure 1, which also depicts several primary TCA and cultural sites that are in the Area of Potential Effect (APE) from this project.

In Ruling 6164, the NSE found that "it is not his responsibility to ensure that the Federal government fulfills its responsibilities to the Tribal Protestants." (NSE, 2012). While that may be true, the courts have made it clear that cultural resources are regarded as part of the natural environment (BLM, 2012a). Likewise, the NSE does not have jurisdiction to review the actions of the USFWS, yet the results of the Endangered Species Act Section 7 consultations are integrated into the definition of unreasonable effects, and incorporated into the proposed 3M Plan. Cultural resources should receive the same consideration, since as the NSE pointed out, he has no jurisdiction to review the actions of the BLM or BIA (NSE, 2012). The definition of unreasonable effects should therefore include an objective standard with respect to adverse effects⁹ on cultural resources resulting from construction and operation of groundwater production facilities.

As shown on Figure 3, the Swamp Cedar ACEC is a subset of the larger Swamp Cedar TCP, also named *Bahsahwahbee*, which is listed in the National Register of Historic Places

⁹ Adverse effects, as defined by the NHPA, are "when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, feeling, or association." (30 CFR 800.5)

(NRHP) under Criteria A (CTGR, 2017). The TCP was found to be eligible for listing in January 2017, and listed on the Register in May 2017. The listing process had been underway for some period of time, hence the special designation by the BLM. The Applicant did not consult with the CTGR in their development of the TAR; thus, it is not surprising that the TAR fails to recognize the cultural resources to be preserved and that make the area eligible for listing, aside from the Swamp Cedar tree. The TAR does not monitor for or prevent adverse effects to the cultural resources, nor does it address acceptable mitigation. Without a site-specific plan that anticipates effects on specific cultural resources, any triggers, monitoring, mitigation, and management actions proposed in the 3M Plans with respect to cultural resources are arbitrary.

With respect to terrestrial woodland habitat, approximately 40 percent (1,500 acres) of the terrestrial woodland habitat in Spring Valley is within the Swamp Cedar ACEC. Again, since the definition of unreasonable effects is tied to basin wide elimination of habitat, what happens outside of the monitoring location is irrelevant, since the one location that the Applicant is obligated to protect because of its special designation status will persist. Terrestrial woodland habitat should be properly characterized beyond Swamp Cedar persistence, unreasonable effects should be appropriately defined to a standard more realistic than “basin wide elimination” by an agency that has oversight over or expertise with that habitat, and a monitoring and mitigation plan with triggers and thresholds linked to an effects analysis should be incorporated into the 3M Plan. While the 3M Plan has a mitigation trigger for the area that is monitored, the trigger is arbitrary.

2.4 INVESTIGATION TRIGGERS FOR SENIOR WATER RIGHTS

The investigation triggers for senior water rights that have been established, are based solely on a Seasonally Adjusted Linear Regression (SALR) to establish a lower control limit for the baseline dataset (SNWA, 2017). The triggers are independent of the predicted project effects. The Applicant provides several examples of projects that establish triggers from baseline data, but they are not applicable parallels. For example, the *South Westside Basin GW Management Plan in California*¹⁰ establishes triggers from baseline data with the objective of maintaining the baseline. Exceeding the trigger is an indication that effects of groundwater withdrawals are going beyond the basin yield, and the basin is not being sustainably managed. However, in the case of the TAR under consideration, the Applicant uses investigation triggers established from baseline data in areas that are already predicted to draw down beyond the baseline. Using a SALR on baseline values does not make the number selected any less arbitrary

¹⁰ The South Westside Basin GWMP referenced was produced in response to Assembly Bill (AB) 3030 and Senate Bill (SB) 1938. AB 3030 provided a systematic procedure to develop groundwater management plans. SB1938 modified the CA Water Code by requiring specific elements be included in a GWMP for an agency to be eligible for certain funding administered by the state for groundwater projects.

when it is not associated with a project goal or an effects analysis. If the 3M Plans' objectives were to maintain the baseline, the investigation triggers selected might be appropriate.

2.4.1 Mitigation Triggers and Impact Analysis for Senior Water Rights

The 2017 TAR's approach does not rely on an effects analysis to establish objective thresholds and triggers, but instead takes a broader approach to protect senior water rights through the establishment of five management categories identified as A through E (SNWA, 2017). The Category A management area contains senior water rights that are closest to production wells, while Category E management area includes senior water rights that are not hydraulically connected with the producing aquifer. Regardless of the management area category, the 2017 TAR does not identify specific impacts to any of the senior water rights, thus preventing it from identifying the specific action that will occur if mitigation is triggered. Only senior water right holders within 10 miles of a SNWA GWD POD will have a baseline assessment completed. A baseline assessment has not been completed at each senior water right included in the TAR, nor have the final locations for the wells been determined (SNWA, 2017).

The Applicant should present to the NSE a basin level effects analysis of groundwater withdrawal, along with an analysis of the predicted impacts to senior water right holders. The NSE, representing the senior water right holders, should engage in consultation with the Applicant to mitigate for unreasonable effects where they occur. In this case, the unreasonable effect is conflict with senior water right holders. Where the impact analysis predicts unreasonable effects, mitigation should occur in advance, and include the water right holder in the decision. Once the mitigation for predicted impacts is agreed upon, the NSE would issue the water right, and establish the predicted impacts as foundation upon which to build the triggers and thresholds. The project would not be expected to exceed the predicted impacts. Without baseline assessments and predictive analysis, it is impossible to determine whether even the regional level predictive analysis avoids conflict with senior water right holders. As proposed in the TAR, senior water right holders may be presented with a conflict to their water rights, and no choice but to accept the mitigation offered by the Applicant and already approved by the NSE.

The NSE should delay granting the appropriation until the production well locations are determined, and basin level predictive analysis is complete. This process is similar to all of the other ongoing consultations associated with the project. An agency, acting on behalf of a resource, conducts an impact analysis and requires mitigation for predicted impacts prior to authorizing the action. The agency then conditions the approval on project effects not exceeding those predicted.

Given the state of the tiered NEPA analysis, the conditions of approval for the BLM ROD on the pipeline ROW, and the inability of the Applicant to incorporate an effects analysis into the 3M Plans that set objective triggers and thresholds, it is premature to grant the water

rights. It also places federal interests ahead of non-federal senior water right holders, since federal consultations will continue to modify the 3M Plans as basin level predictive analysis is completed in subsequent tiers of NEPA.

2.4.2 Example of Senior Water Rights Investigation and Mitigation Trigger

Water right 8713 is a Management Category A underground right, located in Management Block 1 (see Figure 2). The water right is described in its application for permit as a well that is approximately 50 feet in depth that is used for the watering of 6,000 head of sheep and 300 head of cattle. As shown in Figure 2, the programmatic level review estimates drawdown in excess of 50 feet. There has been no baseline assessment completed, so no information is provided regarding the static water level in the well or the modeled impact of groundwater drawdown in the area. No quantitative triggers have been established in the TAR. An investigation trigger will be activated if the static water level in the well decreases below the 99.7 percent lower control limit of a Seasonally Adjusted Linear Regression (SALR) of the baseline data. Given the analysis to date, 50 feet of drawdown will quickly exceed an investigation trigger established from the baseline data. An investigation trigger established from the baseline data provides no value, since the predicted drawdown is already expected to be 50 feet. In a well that may only be 50 feet in depth, we can only conclude that the mitigation trigger would also be exceeded, given the level of analysis in the TAR and the programmatic modeling. There is no discussion in the TAR about senior water right holders where the predicted impacts conflict, or the specific mitigation action that will be taken at these locations. Only a menu of possible mitigation actions is presented that may or may not be satisfactory to the water right holder.

3.0 SUMMARY OF OPINIONS

The NSE should withhold the granting of the water rights until site specific effect analyses, based on an acceptable definition of unreasonable effects, is completed by the Applicant. The Applicant failed to establish an objective standard regarding unreasonable effects to the environment by proposing an unacceptably low standard for environmental effects. Additionally, the TAR's lack of a site-specific effect analysis eliminates a quantification of mitigation that can be expected to avoid conflict with senior water right holders. Based on predictive models, the Applicant should quantify impacts to specific senior water rights, federally recognized cultural sites, and other environmental resources that are important to the people of Nevada. The quantified extent and magnitude of impacts to all resources becomes the basis for determining the location, types, and amount of mitigation required due to GDP impacts. Based on a quantification of impacts and mitigation, the NSE could then make a decision as to the GDP's feasibility and its effects on the resources of the State of Nevada. The following summarizes the findings of this report.

- The Applicant fails to establish an objective standard regarding unreasonable effects to the environment. The Applicant has created an unacceptably low standard for environmental effects.
 - The standard of jeopardy to federally listed species is below the standard that is used to require mitigation from the USFWS. The USFWS has already determined that jeopardy to listed species, as defined by the Endangered Species Act, will not occur, but that adverse effects are likely to occur. The project May Affect and is Likely to Adversely Affect (MALAA) several species (USFWS, 2012). Unacceptable effects should be tied to incidental take statements published in Biological Opinions in subsequent tiers of NEPA, subject of course to decisions from the United States District Court in pending litigation..
 - The standard of basin wide extirpation of native aquatic-dependent species results in a monitoring and mitigation program focused in only one area within Spring Valley, an area that accounts for only 9% of the habitat. The Applicant should present an effects analysis for specific areas within the entirety of Spring Valley and provide unreasonable effects and mitigation requirements that are consistent with federal and state agency requirements. Effects that exceed the agreed authorized project impacts should be considered unreasonable.
 - The standard of basin wide elimination of habitat types results in a monitoring and mitigation program that is inadequate for mesic and terrestrial woodland habitat. Both habitat types are characterized by

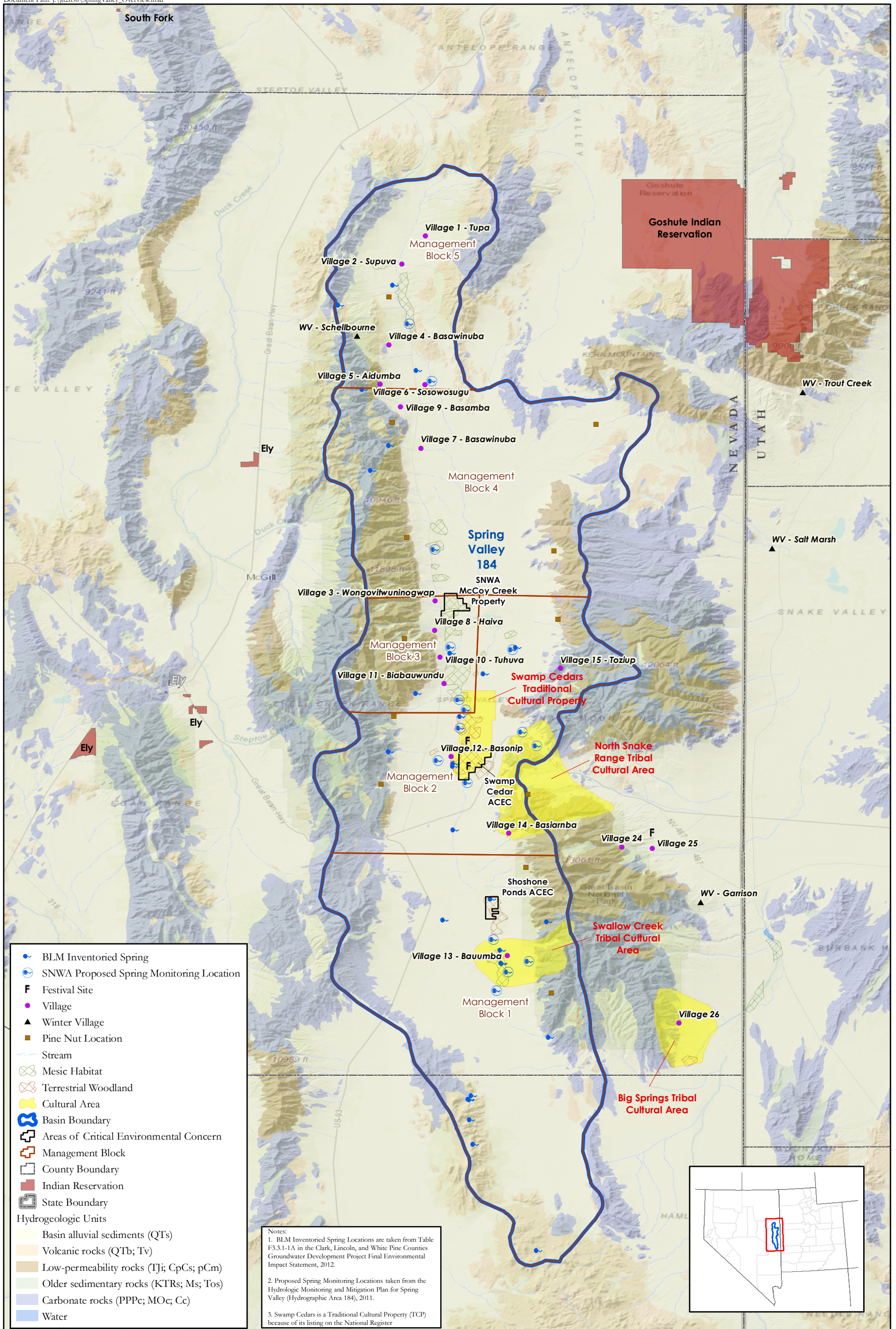
linkages to a single species (Northern leopard frog and Swamp Cedar) and monitored at a location that either experiences minimal impact or is already afforded protections through special designation. Even within those monitoring areas, unacceptable impacts are arbitrarily tied to baseline data, and not based on an effects analysis.

- Cultural resources are part of the environment and should be included in the definition of unreasonable effects. Cultural resources are afforded protections from adverse effects in both federal and state law. Unreasonable effects to cultural resources are those project impacts that cause adverse effects to the characteristics that qualify a cultural resource for listing.
- Investigation triggers that are not linked to an effects analysis are arbitrary in that they are not tied to a predicted range of values. Investigation triggers tied to the baseline monitoring data in areas that are predicted to draw down beyond the already established investigation trigger have no value (Figures 2-4).
- There is no discussion of the amount of mitigation that can be expected to be required to avoid conflict with senior water right holders. The Applicant should present an effects analysis that includes predicted effects to senior water right holders, as compared to established mitigation triggers. The Applicant does not establish specific mitigation triggers for each senior water right holder. The Applicant discusses specific yield method by which mitigation triggers will be established at some point in the future, and a commitment to do baseline assessments of the points of diversion by management category, but assigns no mitigation triggers to each senior water right. A trigger must be a measurable or observable value at a discrete location. The Court has already determined that these standards must be in place prior to approval of an application.
- Protection of senior water rights does not, in itself, prevent unreasonable environmental effects. The USFWS analysis of the predicted effects in the programmatic level review contradict that assertion. Also, because of the mitigation options presented, the Applicant may dig a deeper well, install pumps, provide alternate grazing land, or install cisterns and deliver water.
- The Swamp Cedar ACEC monitoring plan is arbitrary in that it does not consider the characteristics that it is listed for in the National Register.
- The Swamp Cedar ACEC boundary should be modified to encompass the entire Tribal Cultural Area of *Bahsahwahbee* listed in the National Register.

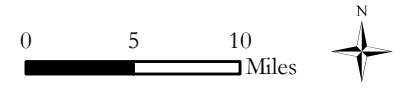
- The cultural resources inventory and eligibility determination for the Section 106 consultation is not complete. Therefore, the TAR does not account for all eligible or listed cultural sites (Figure 1).
- The groundwater pumping locations have not been determined, and therefore a basin level effects analysis cannot be completed at this time. A basin level effects analysis is required for subsequent analysis of groundwater pumping facility locations.
- The NSE should delay granting water rights until the Applicant submits applications for all proposed points of diversion and that rights of way environmental analysis has been completed for all project facilities.

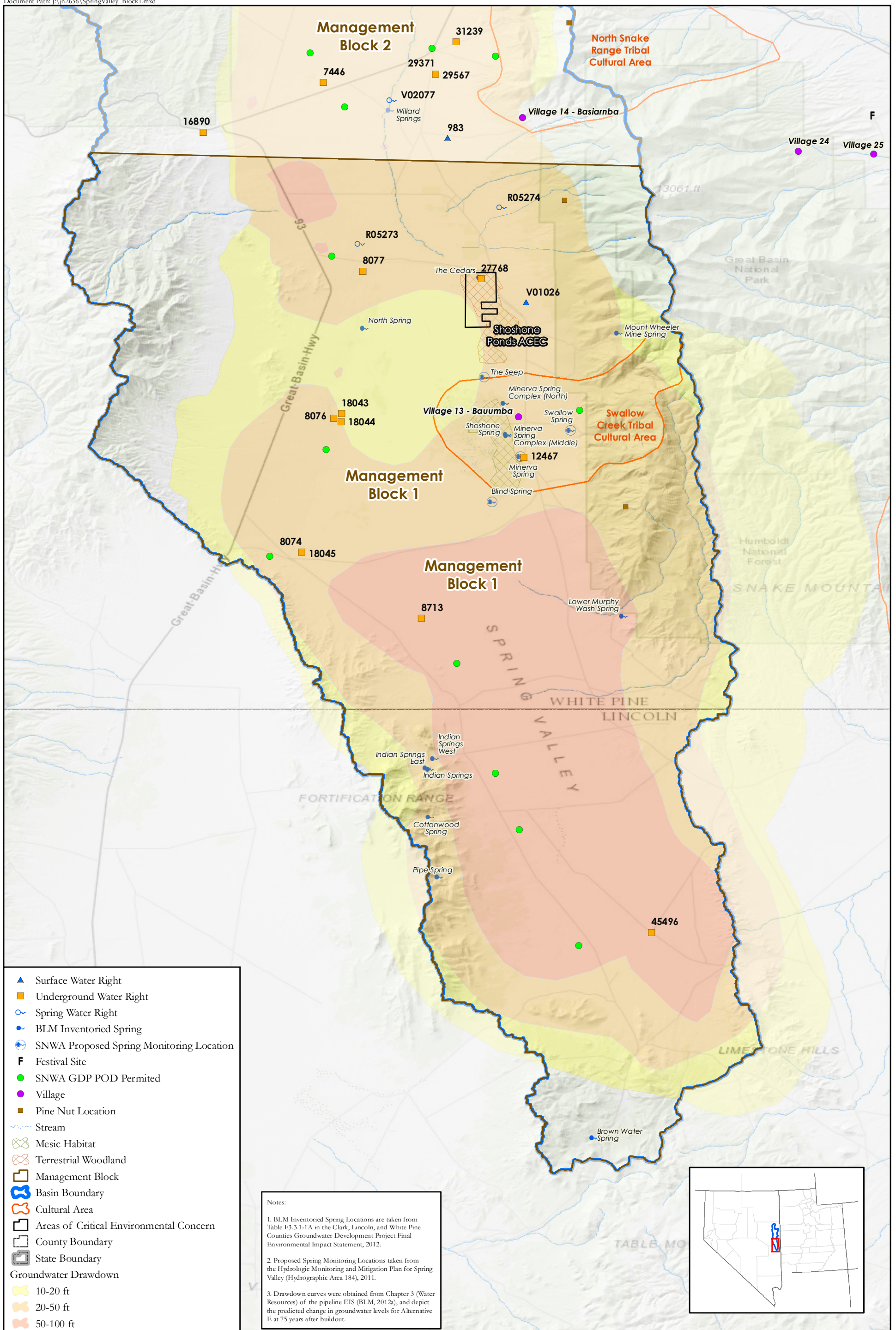
4.0 REFERENCES

- CTGR Exhibit 005, 2010. Confederated Tribes of the Goshute Reservation, Iapah, Utah.
Prepared by Sylvester L. Lahren, Jr. Ph.D
- CTGR Exhibit 021, 2017. National Register of Historic Places Registration Form and Listing Confirmation.
- Nevada Department of Wildlife, 2017. Habitat Division Home Page, [accessed July 2017],
available from http://ndow.org/Our_Agency/Divisions/Habitat.
- Nevada State Engineer (The Office of the State Engineer of the State of Nevada)(NSE), 2012.
The Ruling (#6164) in the matter of applications 54003 through 54021, inclusive, filed
to appropriate the underground waters of the Spring Valley hydrographic basin (184),
Lincoln and White Pine Counties, Nevada.
- Remand Decision, 2013. Decision. *White Pine County and Consolidated Cases e.t. al., vs.
Jason King, P.E., Nevada State Engineer, State of Nevada Division of Water Resources.*
- SNWA Exhibit 507. SNWA, 2017. Technical Analysis Report Supporting the Spring Valley and
Delamar, Dry Lake, and Cave Valleys, Nevada, 3M Plans.
- Stipulation. 2006. Stipulation for Withdrawal of Protests: U.S. Bureau of Indian Affairs, U.S.
Bureau of Land Management, U.S. Fish and Wildlife Service, National Park Service,
Southern Nevada Water Authority, 2006. Regarding SNWA groundwater application
(#54003-54021) in Spring Valley Hydrographic area (#184). September 8, 2016.
- Bureau of Land Management, 2012a. Clark, Lincoln, and White Pine Counties Groundwater
Development Project Final Environmental Impact Statement.
- Bureau of Land Management, 2012b. Clark, Lincoln, and White Pine Counties Groundwater
Development Project Record of Decision.
- U.S. Fish and Wildlife Service, 2012. U.S. Fish and Wildlife Service Biological and Conference
Opinion for the Clark, Lincoln, and White Pine Counties Groundwater Development
Project;



**TRIBAL CULTURAL RESOURCES
ADMINISTRATIVE GROUNDWATER BASIN 184
SPRING VALLEY, NEVADA**

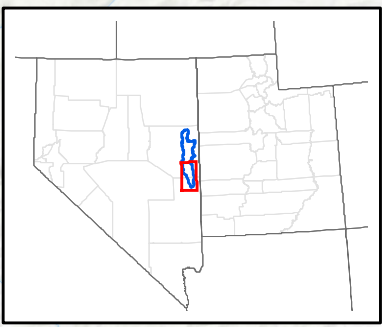




▲ Surface Water Right
■ Underground Water Right
○ Spring Water Right
● BLM Inventoried Spring
○ SNWA Proposed Spring Monitoring Location
F Festival Site
● SNWA GDP POD Permitted
● Village
■ Pine Nut Location
 Stream
 Mesic Habitat
 Terrestrial Woodland
 Management Block
 Basin Boundary
 Cultural Area
 Areas of Critical Environmental Concern
 County Boundary
 State Boundary
Groundwater Drawdown
 10-20 ft
 20-50 ft
 50-100 ft

Notes:

1. BLM Inventoried Spring Locations are taken from Table F3.3.1-1A in the Clark, Lincoln, and White Pine Counties Groundwater Development Project Final Environmental Impact Statement, 2012.
2. Proposed Spring Monitoring Locations taken from the Hydrologic Monitoring and Mitigation Plan for Spring Valley (Hydrographic Area 184), 2011.
3. Drawdown curves were obtained from Chapter 3 (Water Resources) of the pipeline EIS (BLM, 2012a), and depict the predicted change in groundwater levels for Alternative E at 75 years after buildout.



MANAGEMENT BLOCK 1
ADMINISTRATIVE GROUNDWATER BASIN 184
SPRING VALLEY, NV

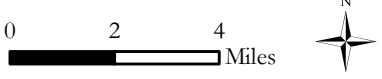
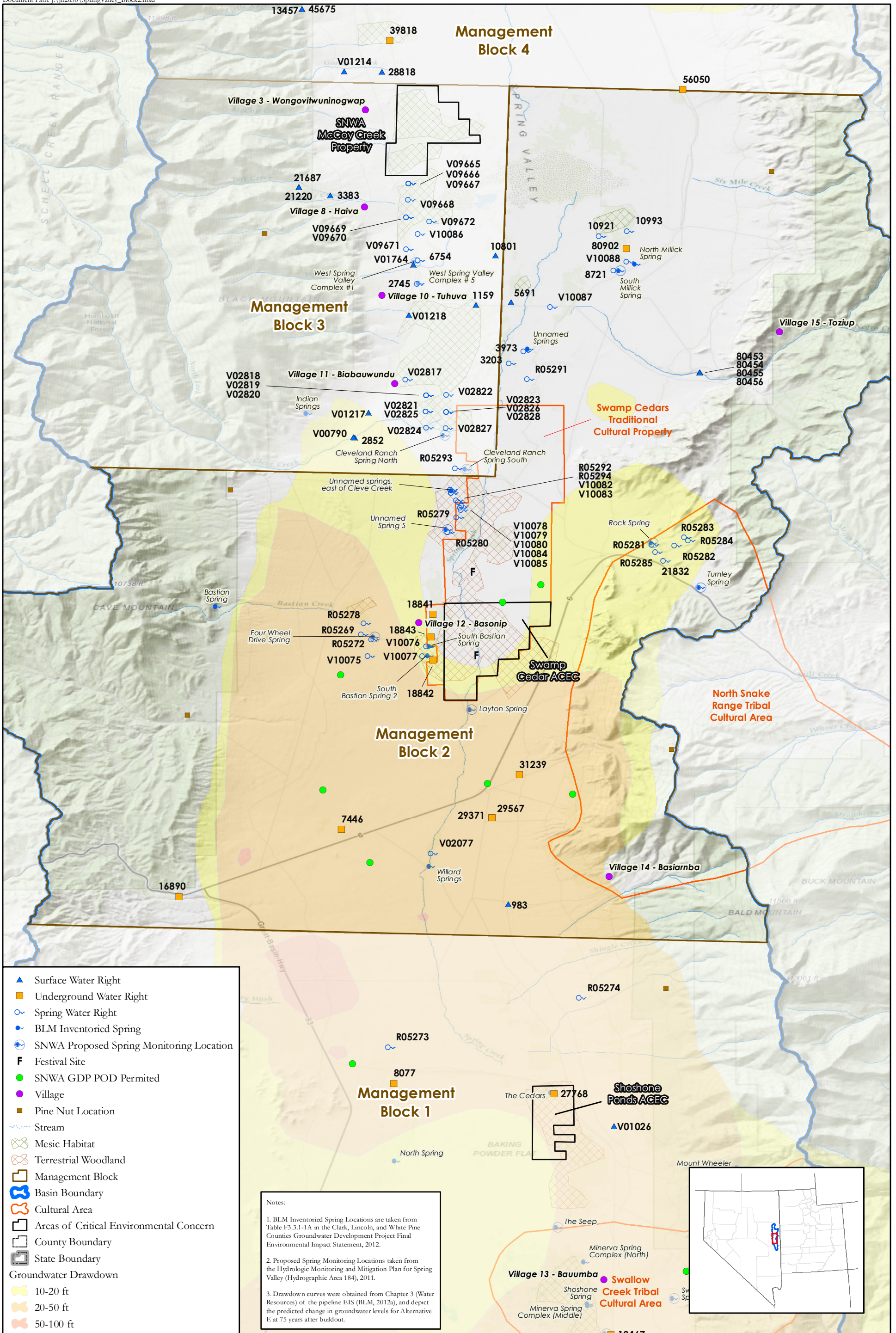
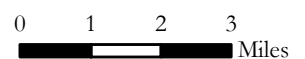
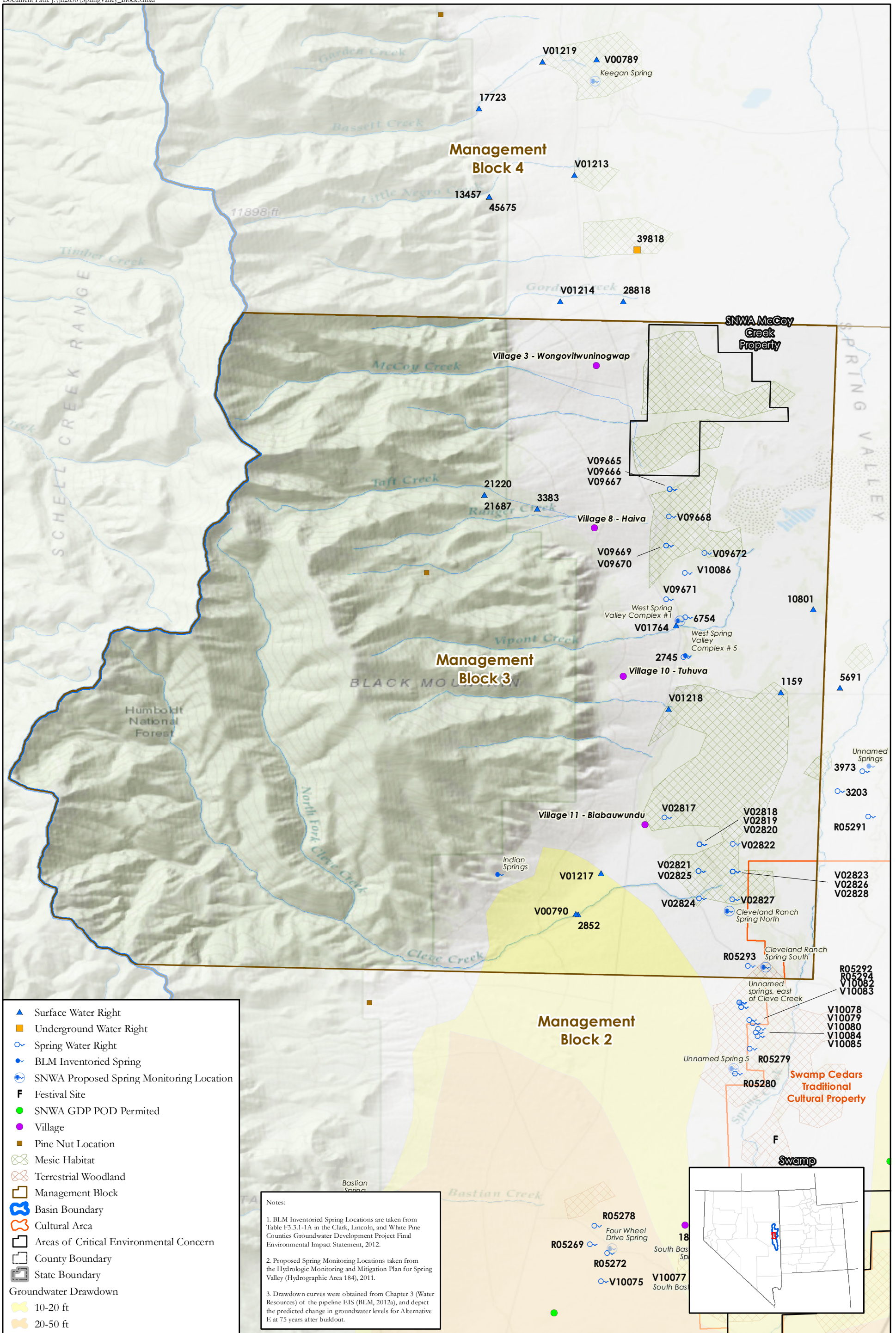


FIGURE 2



MANAGEMENT BLOCK 2
ADMINISTRATIVE GROUNDWATER BASIN 184
SPRING VALLEY, NV





▲ Surface Water Right
■ Underground Water Right
○ Spring Water Right
● BLM Inventoried Spring
○ SNWA Proposed Spring Monitoring Location
F Festival Site
● SNWA GDP POD Permitted
● Village
■ Pine Nut Location
 Mesic Habitat
 Terrestrial Woodland
 Management Block
 Basin Boundary
 Cultural Area
 Areas of Critical Environmental Concern
 County Boundary
 State Boundary
Groundwater Drawdown
 10-20 ft
 20-50 ft

Notes:

1. BLM Inventoried Spring Locations are taken from Table F3.3.1-1A in the Clark, Lincoln, and White Pine Counties Groundwater Development Project Final Environmental Impact Statement, 2012.
2. Proposed Spring Monitoring Locations taken from the Hydrologic Monitoring and Mitigation Plan for Spring Valley (Hydrographic Area 184), 2011.
3. Drawdown curves were obtained from Chapter 3 (Water Resources) of the pipeline EIS (BLM, 2012a), and depict the predicted change in groundwater levels for Alternative E at 75 years after buildout.



**MANAGEMENT BLOCK 3
ADMINISTRATIVE GROUNDWATER BASIN 184
SPRING VALLEY, NV**

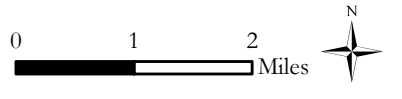


FIGURE 4

Tribal Cultural Areas
of the Goshute and Western Shoshone Peoples
in Spring and Snake Valleys¹

July 25, 2017

Prepared by:

Monte Sanford, PhD

¹ Disclaimer: This report does not and is not intended to provide a comprehensive list of Tribal Cultural Areas. The Confederated Tribes of the Goshute Reservation, Ely Shoshone Tribe, and Duckwater Shoshone Tribes have many other Tribal Cultural Areas that were not the subject of this document.

I. INTRODUCTION

This report describes several Tribal Cultural Areas (TCAs) within Spring and Snake valleys (White Pine and Lincoln counties, Nevada) that are especially significant for the survival and preservation of the Tribal cultural way of life of Goshute and Western Shoshone peoples. Goshute Tribal elders identified the TCAs described herein, but these areas do not comprise a comprehensive list of TCAs. Indeed, many additional TCAs, which are not the subject of this report, are located in Spring Valley, Snake Valley, and the surrounding regions of Goshute and Western Shoshone ancestral territory.

II. TRIBAL CULTURAL USE AREAS

Goshute and Western Shoshone peoples rely on Spring Valley and its surrounding regions for traditional cultural purposes. These places include but are not limited to ceremonial areas and tribal gathering areas, burial grounds, sites of religious or spiritual significance, traditional hunting and fishing grounds, gathering areas for traditional medicines and foods, and springs and other water sources from which Tribal people use the water for prayers, burial rites, medicinal and healing ceremonies, sunrise and sunset ceremonies, and rain dances.

In Spring Valley, there are many burial grounds that will not be identified or delineated in this report in order to safeguard those burials. Goshute Tribal elder Rupert Steele can testify in a non-public setting, as needed, as to the location of burial grounds within Spring Valley.

Tribal people are a vital part of the environment in Spring Valley and its surrounding regions. They are physically and spiritually connected to the entire region. And all of these areas

are physically and spiritually connected. Accordingly, it is inapposite to place boundaries around TCAs. That being said, any boundary lines depicting TCAs are only for the purposes of this report and should not be construed as limits to the areas that the Tribes use. Instead, the any boundary lines for these areas are intended only to highlight areas that of are special significance to the Tribes. Furthermore, connectedness of the TCAs is illustrated in CTGR Exhibit 1, Maps Reflecting Goshute Land Use Areas.

The TCAs described below occur within the five management blocks chosen arbitrarily by Southern Nevada Water Authority (SNWA). Those management blocks are depicted in the SNWA Proposed Monitoring, Management, and Mitigation Plan for Spring Valley, Nevada (June 2017) (hereinafter, “3M Plan”). In that proposed 3M Plan, Figure 2-12 shows that SNWA has extended Management Block 1 east into Snake Valley.

A. Big Spring Tribal Cultural Area

Big Spring Tribal Cultural Area is located just below the southeast edge of the Snake Range in Snake Valley, which is part of SNWA’s extended Management Block 1. In the lowland spring area, there is a complex of active springs and seeps. Historically, this was the location of a large Indian village, especially important as a wintertime village. Tribes used the water from Big Spring for drinking, healing, and ceremonies. Presently, the Big Spring TCA remains important to Tribal people as a source of sacred water for ceremonies. In those ceremonies, they pray to the water so that that water will purify their bodies, heart, and mind. Tribal people use the water in prayer ceremonies to honor their ancestors. The water is also used to pray for the continued health of the earth.

Plants at or near the springs that are used by the Tribes for traditional foods and medicines include willow, watercress, grasses, sedges and cattails—all water-dependent species.

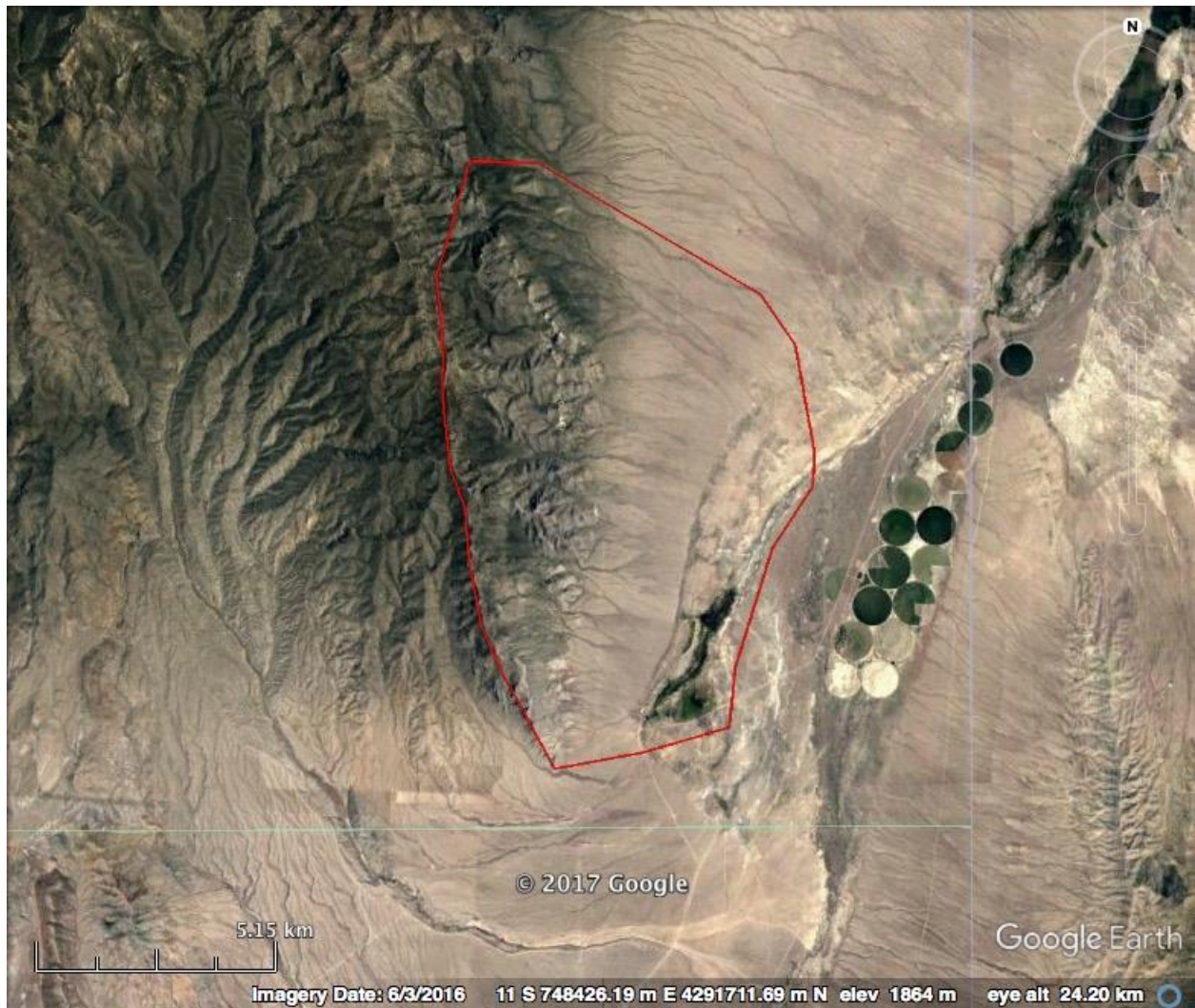


Figure 1. Big Spring Tribal Cultural Area depicted by the red polygon is located in the southern part of Snake Valley and the Snake Range, Nevada.



Figure 2. One of the many springs at the Big Spring Tribal Cultural Area with flowing water and traditional foods and medicines like willow and water cress.



Figure 3. Uplands, cliffs, and mountains within the Big Spring Tribal Cultural Area, located at the south end of the Snake Range, Nevada.

B. Swallow Creek Tribal Cultural Area

The Swallow Creek Tribal Cultural Area extends west from Mount Washington and Lincoln Peak in the Snake Range down into southern Spring Valley. Swallow Spring is located at the source of Swallow Creek, a spiritually potent water source for Tribes. Another spring is west and north of Swallow Spring, and it feeds a small grove of older trees. The Minerva spring complex is located still further downslope in the western-most parts of the Swallow Creek TCA. The Swallow Creek TCA is a sacred area where individual Tribal members go to ascend physically up the mountain while also ascending spiritually. Tribal people may fast for many

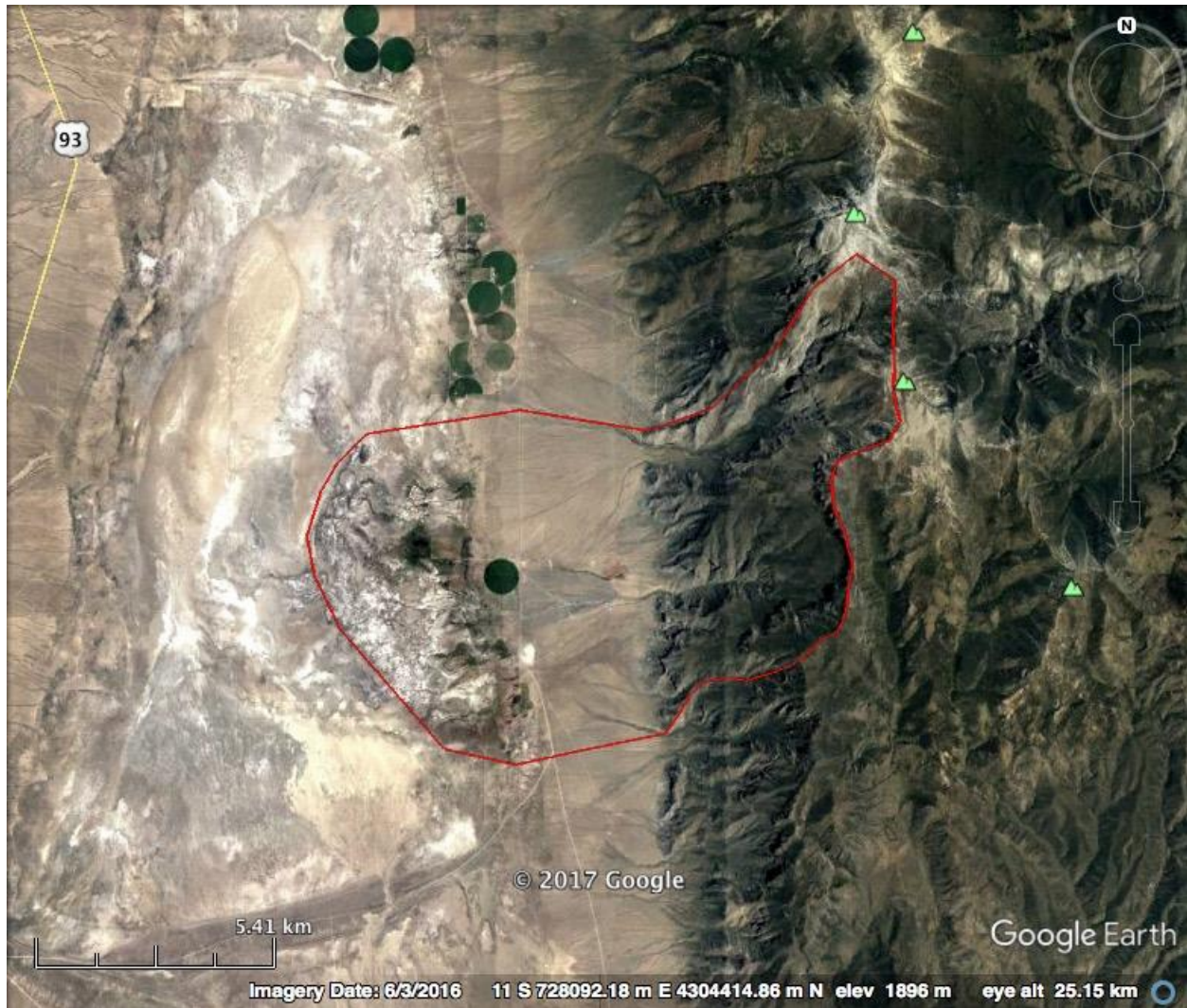


Figure 4. Swallow Creek Tribal Cultural Area, extending west from Mount Washington and Lincoln Peak in the Snake Range down into southern Spring Valley.

days as part of this journey. They take the water from the springs up to the high mountain cliffs that overlook Spring Valley. They carry eagle feathers and sacred plants and other items used for spiritual practices. On the high mountain cliffs, they pray for health and healing, for relatives and ancestors, for friends and enemies, and for the continued gifts provided by the earth. They use the spring water and eagle feathers to send their prayers into the sky. And they repeat that ceremony to allow their own spirits to ascend. After that journey, they may leave their sacred items hidden on the cliffs as an offering or use them again the next time they return.



Figure 5. Southeast view from Spring Valley up into Swallow Creek Canyon, Snake Range, Nevada, part of the Swallow Creek Tribal Cultural Area.



Figure 6. A spring-fed woodland to the right of the photograph and upland desert shrubland on the left, looking west and down into southern Spring Valley from the approximate center of Swallow Creek Tribal Cultural Area.

This TCA is also a place for Tribal rain dances and snow dances.

C. Swamp Cedars Traditional Cultural Area

The Swamp Cedars Traditional Cultural Area, located just north of Highway 50 in the valley bottom of Spring Valley, was listed on the National Register of Historic Places as a Traditional Cultural Property (TCP). The southern section of the TCP is also designated as an Area of Critical Environmental Concern (ACEC). The Tribes have urged the Ely District BLM to expand the Swamp Cedars ACEC to the boundaries depicted in Figure 7.

The Tribes have occupied Swamp Cedars since time immemorial, using the swamp cedar groves as a place for homes and villages, intertribal gatherings, ceremonial dances, healing ceremonies, food and medicine harvesting, hunting, and a place to gather and use the sacred spring water. So it is more than just the swamp cedars trees that are important at the Swamp Cedars TCA. Especially significant is the water—water that Tribal people use for its special healing powers. There are also many plants that are gathered and used as traditional foods and medicines, such as Indian rice grass, Great Basin wildrye, watercress, sagebrush, saltbush, Mormon tea, pickleweed, saltweed, and cattails among many other species.

More details about the cultural and historical significance of Swamp Cedars, including the three massacres that occurred during ceremonial gatherings, can be found in CTGR Exhibit 21, National Register of Historic Places Registration Form for *Bahsahwahbee*.

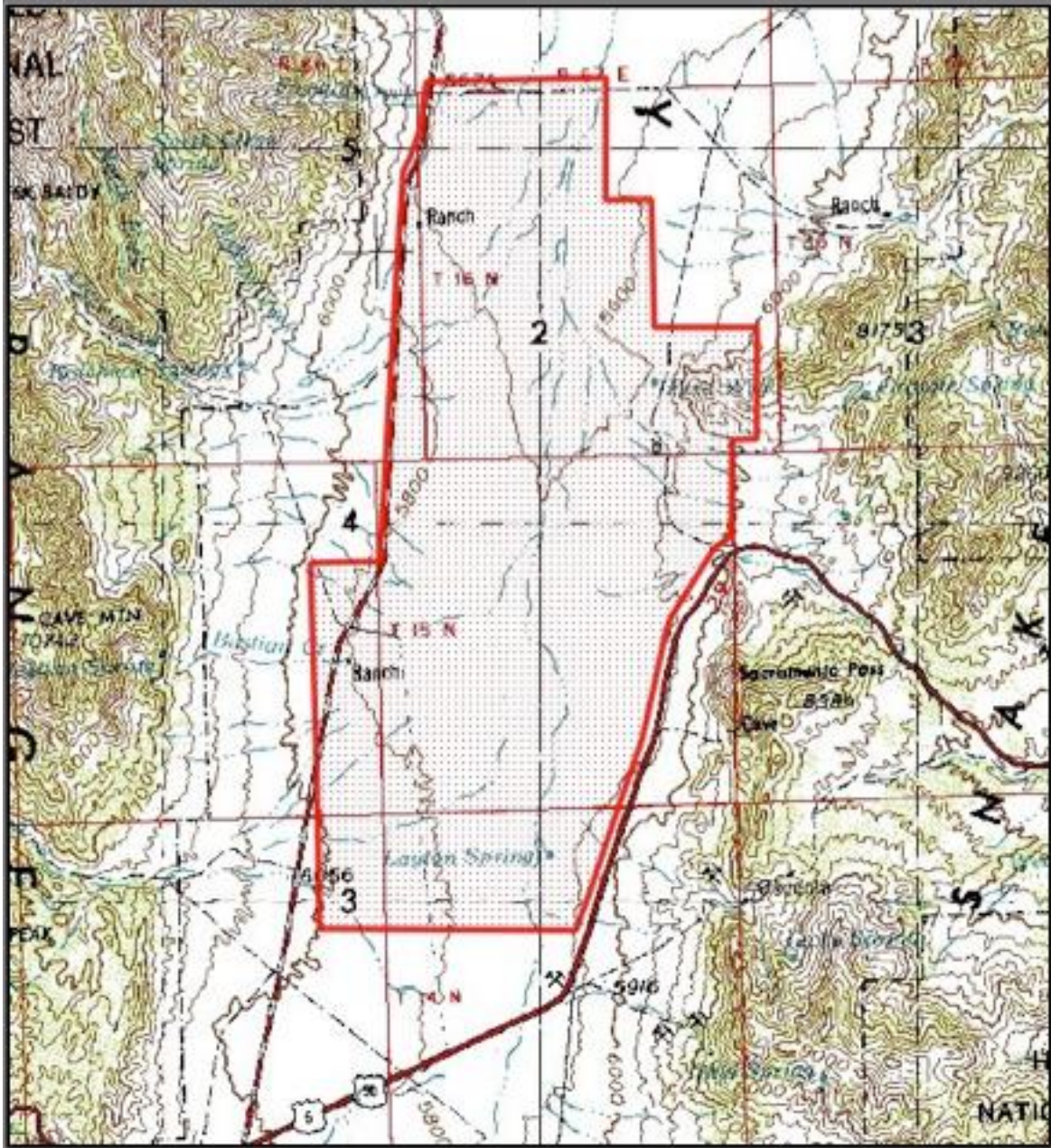


Figure 7. The Tribes' original proposed boundary of the Swamp Cedars (*Bahsahwahbee*) Traditional Cultural Property to be listed on the National Register of Historic Places.

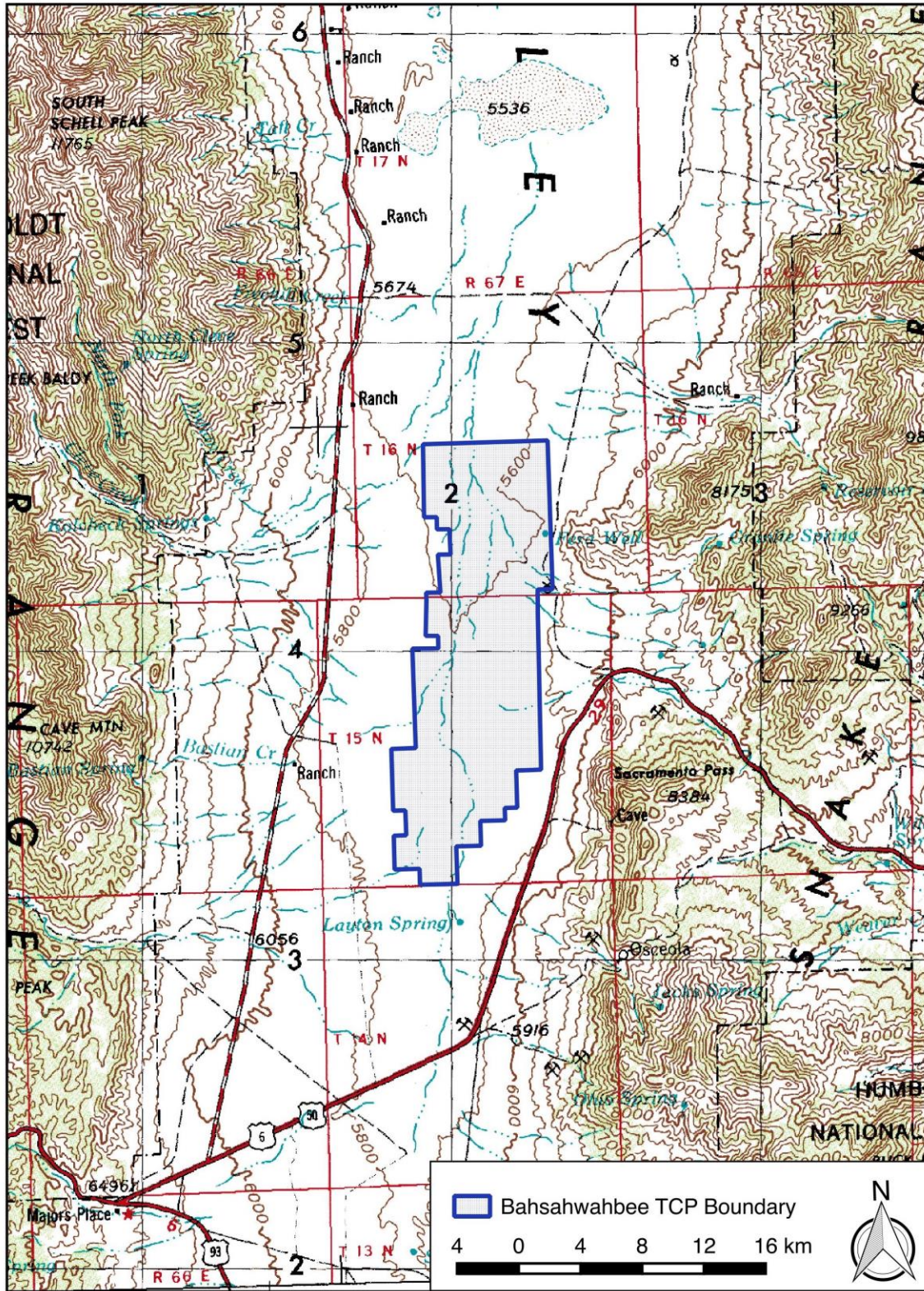


Figure 8. Present boundaries of the Swamp Cedars (*Bahsahwahbee*) Traditional Cultural Property approved by the Bureau of Land Management and National Park Service.

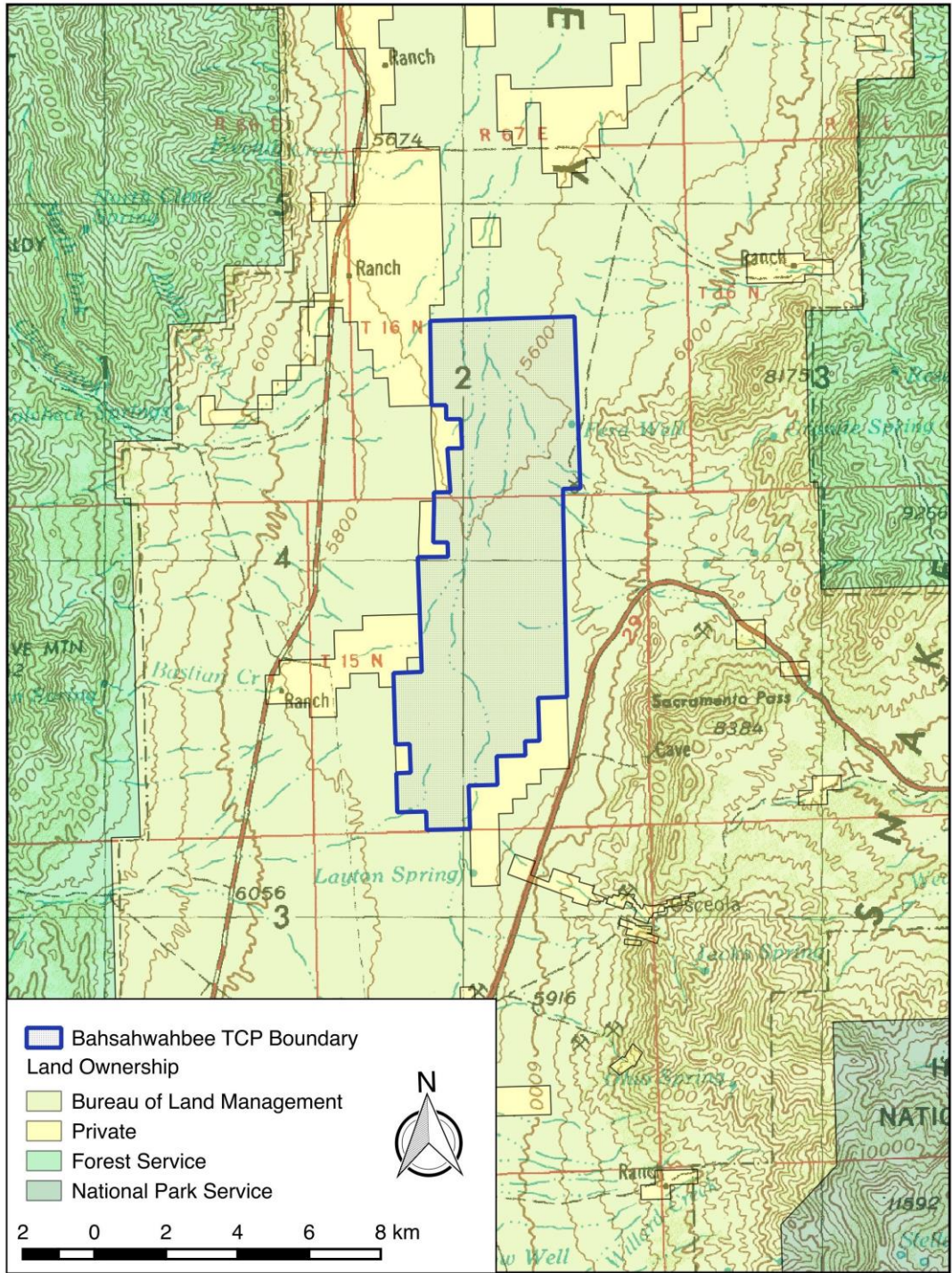


Figure 9. Swamp Cedars (*Bahsahwahbee*) Traditional Cultural Property on BLM-administered lands in relation to other land ownerships.



Figure 10. Goshute Tribal elder Rupert Steele beginning ceremonial practice at the Swamp Cedars Tribal Cultural Area. As a Tribal spiritual practitioner, he is a vital part of environment within Spring Valley and Swamp Cedars.



Figure 11. Spring and spring-fed meadows that weaves through parts of Swamp Cedars.



Figure 12. Spring and pool at the Swamp Cedars Tribal Cultural Area.



Figure 13. Seeps and springs at Swamp Cedars Tribal Cultural Area giving rise to flowers.



Figure 14. Spring-fed meadow within the Swamp Cedars Tribal Cultural Area.



Figure 15. Wetland filled with cattails and other wetland species at Swamp Cedars.



Figure 16. Wetland within the Swamp Cedars Tribal Cultural Area.

D. North Snake Range Tribal Cultural Area

The North Snake Range Tribal Cultural Area encompasses Sacramento Pass, south to Rose Guano Cave, past Osceola, and around Windy Peak. It occurs within SNWA's proposed Management Block 2. The entire region is used for traditional hunting and gathering. Springs, stringer meadows, and riparian areas are used for gathering chokecherries and elder berries and rosehips. Drier areas contain an abundance of pinyon pine, Mormon tea, and other food plants.



Figure 17. The North Snake Range Tribal Cultural Area depicted in red polygon.

Caves were used historically to store food in refrigerator-like settings and away from animals. Water from springs and streams are important for burial ceremonies and sunrise and sunset ceremonies that occur on mountain passes and ridges. In these ceremonies, the water is used to lift spirits from low to high, toward the Sun. Sacramento Pass is also culturally significant since five camps of Goshute people were massacred right after the Swamp Cedars.



Figure 18. Riparian area in the North Snake Range Tribal Cultural Area full of traditional foods, medicinal plants, water, and elk.

E. North Spring Valley Tribal Cultural Area

North Spring Valley Tribal Cultural Area occurs north of Highway 50 and runs along the eastern side of the Schell Creek Range and west side of Spring Valley. Mountain streams from Bastian and Cleve Creeks in SNWA's proposed Management Block 3 all the way north up to Siegel Creek in Management Block 5 is culturally significant. It is laden with Tribal historic village sites, traditional hunting grounds, fishing zones along stream channels, and traditional food and medicinal plant gathering areas. In Management Blocks 4 and 5, which is the very



Figure 19. North Spring Valley Tribal Cultural Area near the Stonehouse Spring and Sand Pass.

northern part of Spring Valley, the Tribes have large pine-nut gathering areas that are in the Schell Creek Range, Antelope Range, Kern Mountains and Snake Range. In the valley bottom in northern Spring Valley Management Block 5, a large meadow exists north and south of Stonehouse Spring where the Tribes once had large villages. Presently and historically, it's been a significant source of traditional foods and medicines, such as wetland-dependent cattails and willows and wet meadow grasses.

**BEFORE THE STATE ENGINEER, STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL
RESOURCES, DIVISION OF WATER RESOURCES**

IN THE MATTER OF APPLICATIONS 53987
THROUGH 53992, INCLUSIVE, AND 54003
THROUGH 54021, INCLUSIVE, FILED TO
APPROPRIATE THE UNDERGROUND
WATERS OF SPRING VALLEY, CAVE
VALLEY, DRY LAKE VALLEY,
(HYDROGRAPHIC BASINS 180, 181, 182
AND 184), LINCOLN COUNTY AND
WHITE PINE COUNTY, NEVADA.

**DECLARATION OF MONTE
SANFORD**

_____/

I, MONTE SANFORD, declare under penalty of perjury as follows:

1. My name is MONTE SANFORD. I'm an environmental and cultural consultant, specialized in working for Tribal nations. I have worked with the Confederated Tribes of the Goshute Reservation ("Goshute Tribes") and Western Shoshone tribes, including Ely Shoshone and Duckwater Shoshone, since about 2009. Since then, I have worked closely with numerous Tribal elders and spiritual leaders. I have been present during cultural activities and ceremonies. And Tribal elders, including Rupert Steele, have taught me Goshute spiritual practices and cultural ways of life. I have also gone on numerous journeys with Tribal elders to sacred places and have been taught first-hand by Tribal elders about their cultural practices.

2. On the weekend of July 22 and 23, 2017, I accompanied two Goshute Tribal elders—Rupert Steele and Lee Moon—to Spring Valley, Snake Valley, and adjacent basins to identify several Tribal Cultural Areas that may be impacted by Southern Nevada Water Authority's (SNWA) proposed Groundwater Development Project.

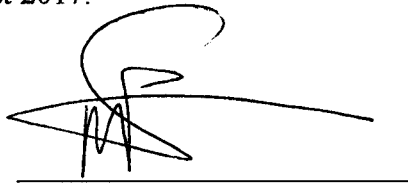
3. During that time, and in times previous to this, I personally visited numerous Tribal Cultural Areas, including Swamp Cedars. On July 22 and 23, 2017, Rupert Steele identified and described Tribal Cultural Areas that were neither included or inadequately

assessed by SNWA's environmental impact analysis, nor adequately protected under the SNWA's revised Monitoring, Management and Mitigation Plans (3M Plans).

4. Based on Rupert Steele's and Lee Moon's delineations of TCAs, descriptions of Tribal cultural practices, details of spiritual and ceremonial practices, and information on important areas for hunting and gathering and burial rites, I drafted, on July 25, 2017, the report entitled *Tribal Cultural Areas of the Goshute and Western Shoshone Peoples in Spring and Snake Valleys*. The photographs and maps contained in the report of our survey accurately depict the places and things represented as of the dates we were present in the area in July 2017.

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on this 9 day of August 2017.



Monte Sanford

**BEFORE THE STATE ENGINEER, STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL
RESOURCES, DIVISION OF WATER RESOURCES**

IN THE MATTER OF APPLICATIONS 53987
THROUGH 53992, INCLUSIVE, AND 54003
THROUGH 54021, INCLUSIVE, FILED TO
APPROPRIATE THE UNDERGROUND
WATERS OF SPRING VALLEY, CAVE
VALLEY, DRY LAKE VALLEY,
(HYDROGRAPHIC BASINS 180, 181, 182
AND 184), LINCOLN COUNTY AND
WHITE PINE COUNTY, NEVADA.

**DECLARATION OF RUPERT
STEELE**

_____/

I, RUPERT STEELE, declare under penalty of perjury as follows:

1. My name is RUPERT STEELE. I am a member of the Confederated Tribes of the Goshute Reservation (“Goshute Tribes”). I am also a Tribal elder, former Tribal Chairman, and a current member of the Goshute Tribal Council. The following facts and statements are based on my personal knowledge and experience. If called as a witness I could and would truthfully testify thereto.

2. I was born on the Goshute Reservation, and I have been a member of the Goshute Tribes for more than 63 years. Over the course of my entire life I have been involved in Tribal activities, cultural events, and Tribal ceremonies. I have lived on the Goshute Reservation for more than 46 years.

3. I am a Tribal elder of the Goshute Tribes, and I have been making regular and frequent visits to the regions that may be affected by the SNWA’s Groundwater Development Project, if approved. Many Tribal members, including myself, are personally tied to those potentially affected regions, especially the Goshute Reservation, Swamp (Shoshone) Cedars in Spring Valley, and many other Tribal Cultural Areas in Spring Valley and adjacent hydrographic basins.

4. On July 22 and 23, 2017, I guided Dr. Monte Sanford on a trip through parts of the Goshute ancestral territory to identify several—but certainly not all—Tribal Cultural Areas that were inadequately or not at all considered as part of the impacts from the Southern Nevada Water Authority’s proposed Groundwater Development Project on our Tribal cultural way of life. Another Tribal elder named Lee Moon accompanied me.

5. With Lee Moon, I identified, delineated, and described for Monte Sanford the Tribal Cultural Areas described in the report, *Tribal Cultural Areas of the Goshute and Western Shoshone Peoples in Spring and Snake Valleys*. I described the Tribal cultural practices that Tribal members carry out at these TCAs. I also described how our people use the spring water and water-dependent plants to carry out ceremonies and spiritual practices. I described hunting and gathering practices in the TCAs, ceremonial practices and dances, and massacre sites and burial grounds that our Tribes keep private. And at several TCAs, we conducted ceremonies together, using eagle feathers, spring water, and smoke from sacred plants.

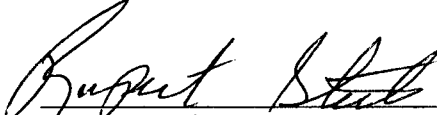
6. On or about July 24, 2017, I reviewed the report that Monte Sanford drafted based on our trip to Spring Valley, Snake Valley, and other areas. And I approved the content of that report.

7. I have also reviewed SNWA’s Monitoring, Management, and Monitoring (3M) plans. Neither myself nor the CTGR were not consulted in developing any portion of the plans. Our Tribal cultural uses and Tribal spiritual practices in the affected region of Spring Valley and other basins were not even considered by SNWA’s 3M plans. The plans do not sufficiently protect the Swamp Cedars and other areas of cultural importance to the Tribe.

8. The federal government has a trust responsibility to protect Tribal interests. As parties to the 3M plans, the federal government should have been actively included in the process of amending the plans to satisfy the deficiencies identified by Judge Estes. I believe the federal government agencies identified in the 3M plans are necessary and indispensable parties to this proceeding.

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on this 10th day of August 2017.


Rupert Steele

CERTIFICATE OF SERVICE

I hereby certify that on the 11th day of August, 2017, I served a copy of the foregoing *Confederated Tribes of the Goshute Reservation; Duckwater Shoshone Tribe; and Ely Shoshone Tribe Rebuttal Exhibit List* by electronic transmission as to agreed to by the parties:

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