

General

Spring Name _____ Country _____ State _____ County _____
 1Land Unit _____ 2Land Unit Detail _____ Quad _____ HUC _____

Access Directions

Georef

Georef Source _____ Device _____ Datum _____ UTMZone _____
 UTM E _____ UTM N _____ Lat _____ Long _____
 Elev _____ EPE _____ feet or meters? Declination _____ Georef Comments _____

Survey

Date _____ Begin Time _____ End Time _____
 Surveyor's Names _____ Project _____

Microhabitats

Description	Area (m ²)	3Surf Type	4Sub Type	5Slope Var	Aspect T/M	Slope Deg	6Soil moist	Water dpth(cm)	%	7Substrate %								Prec %	Litter %	Wood %	Litter (cm)							
										1	2	3	4	5	6	7	8					Org	Oth					
A																												
B																												
C																												
D																												
E																												
F																												
G																												

13Discharge Sphere _____ Site Condition _____
 Site Description _____

Images

Camera Used _____
 Sketch Map Location _____

Photo #	Description

SPF

Sunrise: D _____ J _____ N _____ F _____ O _____ M _____ S _____ A _____ A _____ M _____ J _____ J _____
 Sunset: D _____ J _____ N _____ F _____ O _____ M _____ S _____ A _____ A _____ M _____ J _____ J _____
 Entered by _____ Date _____ Checked by _____ Date _____

Species Name	¹⁶ Str	A	B	C	D	E	F	G	H	Comments	No. Ind	No. Coll

Flora

Flora	Species Name	¹⁶ Str	A	B	C	D	E	F	G	H	Comments	No. Ind	No. Coll

Geomorphology

⁸Emerg Env _____ ¹⁰Mechanism _____ Geologic Layer _____
⁸Detail _____ ¹¹Rock Type _____ ¹²Channel Dynamics _____
⁹Source Geo _____ ¹¹Rock Subtype _____

Polygon	¹³ Discharge Sphere	¹³ Secondary Discharge	Comments

Water Quantity

¹⁴Flow Consistency _____ ¹⁵Measurement Technique _____ Flow Rate (Mean) _____
 Location of Measurements _____ Total Site % Captured _____
 Discharge Comments _____

Current Meter					Flume				
Cell	Distance	Width	Depth	Reading	Point	Flume Size	Measurements	Avg Stage	% Flow

Volume Container				Weir			
Point	Volume	Time to Fill	% Flow	Point	Weir Size	Measurements	% Flow

Entered by _____ Date _____ Checked by _____ Date _____

Measurement Device(s) _____ Date Last Calibrated _____ Air Temp _____

Collection Location/Comments _____

Field Measurements

Depth (cm)	pH	Conductivity	Dissolved O ²	Water Temp. (°C)	Turbidity	Alkalinity	Other	Device
Average								

Collected for Analysis

Sample Type	Sample Taken?	Duplicate Taken?	Container	Filtered (Y/N)	Treatment	
Anions						
Cations						
Nutrients						
² H and ¹⁸ O Isotopes						

Water Quality

Entered by _____ Date _____ Checked by _____ Date _____

SEAP

Aquifer/WQ	Cond	Risk	Habitat	Cond	Risk	Human Influence	Cond	Risk	Administrative Context	Cond	Risk	
Spring dewatered (Y/N) <input type="checkbox"/>			Isolation <input type="text" value="2"/>			Surface water quality			Information quality/quantity			
Aquifer functionality			Habitat patch size			Flow regulation			Cultural significance			
Spring discharge			Microhabitat quality			Road/trail/railroad			Historical significance			
Flow naturalness			Native plant ecological role			Fencing			Recreational significance			
Flow persistence			Trophic dynamics			Construction			Economic value			
Water quality			Score			Herbivory			Conformance to mgmt plan			
Algal and periphyton cover			Biotic Integrity			Recreational			Scientific/educational value			
Score			Native plant richness/diversity			Adjacent conditions			Environmental compliance			
Geomorphology			Native faunal diversity			Fire influence			Legal status			
Site obliterated (Y/N) <input type="checkbox"/>			Sensitive plant richness			Score			Score			
Geomorphic functionality			Sensitive faunal richness			Trend Assessment						
Runout channel Geometry			Nonnative plant rarity						Null Values			
Soil integrity			Nonnative faunal rarity						Null Values			
Geomorphic diversity			Native plant demography									
Natural physical disturbance			Native faunal demography									
Score			Score									Update and Summarize

Notes:

Recommendations:

1	Georeference Source GPS Map Other	7	Substrate 1 clay 2 silt 3 sand 4 fine gravel 5 coarse gravel 6 cobble 7 boulder 8 bedrock Organic Soil/Matter Other/anthropogenic	12	Channel Dynamics (rheocrenes) Mixed runoff/spring dominated Runoff dominated Spring dominated Subaqueous
2	Land Unit BLM DOE NPS Private State Tribal USFS Other	8	Emergence Environ/Detail Cave Subaerial Subglacial Subaqueous-lentic freshwater Subaqueous-lotic freshwater Subaqueous-estuarine Subaqueous-marine	13	Discharge Sphere Anthropogenic Cave Exposure Fountain Geyser Gushet Hanging Garden Helocrene Hillslope Hypocrene Limnocrene Mound-form Rheocrene
3	Surface Type BW Backwall C Cave CH Channel CS Colluvial slope HGC High Grad. Cienega LGC Low Grad Cienega Mad Unfocused Madiculous O Organic Ooze P Pool PP Plunge Pool SB Sloping Bedrock SM Spring Mound TE Terrace TU Tunnel Upl Adjacent Uplands WH Wet Hillslope Oth Other	9	Source Geomorphology Contact Spring Fracture Spring Seepage or filtration Tubular Spring	14	Flow Consistency Dry Intermittent Erratic Intermittent Perennial Regular Intermittent
4	Surface Subtype CH Riffle, Run, Margin, Eph TE LRZ, MRZ, URZ, HRZ UPL,LRZMRZ,LRZURZ, MRZURZ, HRZMRZ All Anthro	10	Flow Force Mechanism Anthropogenic Artesian Geothermal Gravity Other	15	Measurement Technique Current meter Weir Cutthroat flume Other
5	Slope Variability Low, Medium, High	11	Parent Rock Type/Subtype Igneous andesite basalt dacite diorite gabbro grandodiorite granite peridotite rhyolite Metamorphic gneiss marble quartzite slate schist Sedimentary coal conglomerate dolomite evaporates limestone mudstone sandstone shale siltstone Unconsolidated	16	Cover Codes GC Ground Cover SC Shrub Cover MC Midcanopy Cover TC Tall Canopy Cover AQ Aquatic Cover NV Nonvascular (moss, etc) BC Basal Cover
6	Soil Moisture 1 - Dry 2 - Dry-Moist 3 - Moist-Dry 4 - Wet-Dry 5 - Moist 6 - Saturated-Dry 7 - Wet 8 - Saturated-Moist 9 - Wet-Saturated 10 - Saturated 11 - Inundated				

Springs Ecosystem Assessment Protocol Scoring Criteria

Aquifer and Water Quality

AFWQ0 Springs Dewatered (Y/N)

AFWQ1 Aquifer functionality

- 0 Aquifer depleted
- 1 Aquifer nearly depleted
- 2 Aquifer in significant decline
- 3 Aquifer declining slightly but detectably
- 4 Low to moderate aquifer withdrawal
- 5 Aquifer not or only very slightly pumped
- 6 Aquifer pristine; good potential reference site
- 9 Unable to assess aquifer functionality

AFWQ2 Springs discharge

- 0 No flow
- 1 Less than .1 liters per second
- 2 Between .1 and 1 liters per second
- 3 Between 1 and 10 liters per second
- 4 Between 10 and 100 liters per second
- 5 Between 100 and 1000 liters per second
- 6 Over 1000 liters per second
- 9 Unable to assess flow

AFWQ3 Flow naturalness

- 0 Springs dewatered
- 1 Springs mostly dewatered
- 2 Springs flow strongly reduced
- 3 Springs flow slightly, but distinctively, reduced
- 4 Springs flow only slightly reduced
- 5 Springs flow apparently natural
- 6 Springs pristine; good potential reference site
- 9 Unable to assess flow naturalness

AFWQ4 Flow persistence

- 0 No springs flow
- 1 Flow ephemeral, less than 50% of time
- 2 Flow rarely ephemeral
- 3 Flow recently persistent
- 4 Flow apparent during Holocene
- 5 Flow continuous since late Pleistocene
- 6 Flow since mid-Pleistocene or earlier
- 9 Unable to assess flow persistence

AFWQ5 Water quality

- 0 No water
- 1 Water quality less than 10% of natural condition
- 2 Water quality 10 to 30% of natural condition
- 3 Water quality 30 to 60% of natural condition
- 4 Water quality 60 to 90% of natural condition
- 5 Water quality 90 to 99% of natural condition
- 6 Water quality fully natural
- 9 Unable to assess water quality

AFWQ6 Algal and periphyton cover

- 0 Algal or periphyton cover wholly unnatural
- 1 Natural cover of algae or periphyton very poor
- 2 Natural cover of algae or periphyton poor
- 3 Natural cover of algae or periphyton moderate
- 4 Natural cover of algae or periphyton good
- 5 Natural cover of algae or periphyton very good
- 6 Cover of algae or periphyton wholly natural
- 9 Unable to assess algal and periphyton cover

Geomorphology

GEO1 Geomorphic functionality

- 0 Site obliterated unnaturally
- 1 <25% original natural microhabitat types remain
- 2 25-50% of natural microhabitat types remain
- 3 50-75% of natural microhabitat types remain
- 4 75-90% of natural microhabitat types remain
- 5 90-98% of natural microhabitat types remain
- 6 Natural microhabitat types pristine
- 9 Unable to geomorphic functionality

GEO2 Runout channel geometry

- 0 Original runout channel unnaturally obliterated
- 1 Channel virtually obliterated, trenched, or otherwise manipulated
- 2 Channel strongly altered, with only scant evidence of original course
- 3 Channel highly altered but with some functionality
- 4 Channel slightly altered, mostly functional
- 5 Channel functioning apparently naturally
- 6 Channel pristine
- 9 Unable to assess channel geometry

GEO3 Soil integrity

- 0 Natural soils eliminated
- 1 Virtually all natural soils eliminated
- 2 Soils thin or eliminated on most of site but a detectable amount remaining
- 3 Soils patchy and compromised, with degraded functionality
- 4 Soils large intact, and only slightly compromised
- 5 Soils apparently natural, with very minor reduction in functionality
- 6 Soils fully natural
- 9 Unable to assess soil integrity

GEO4 Geomorphic diversity

- 0 None; a completely unnatural condition
- 1 Very low geomorphic diversity
- 2 Low geomorphic diversity
- 3 Moderate geomorphic diversity
- 4 Good geomorphic diversity
- 5 Very good geomorphic diversity
- 6 Pristine; fully natural geomorphic diversity
- 9 Unable to assess geomorphic diversity

GEO5 Natural physical disturbance

- 0 Natural disturbance regime obliterated
- 1 Natural disturbance regime virtually eliminated
- 2 Highly altered natural disturbance regime
- 3 Moderately altered natural disturbance regime
- 4 Little altered natural disturbance regime
- 5 Nearly natural disturbance regime
- 6 Natural disturbance regime virtually pristine
- 9 Unable to assess natural disturbance regime

Site _____ Date _____

Habitat

HAB1 Isolation

- 0 <10 m from the nearest springs ecosystem
- 1 10-50 m from the nearest springs ecosystem
- 2 50-100 m from the nearest springs ecosystem
- 3 100-500 m from the nearest springs ecosystem
- 4 500-1000 m from the nearest springs ecosystem
- 5 1-10 km from the nearest springs ecosystem
- 6 >10 km from the nearest springs ecosystem
- 9 Unknown distance to nearest springs ecosystem

HAB2 Habitat patch size

- 0 No springs habitat area
- 1 < 10 sq m habitat area
- 2 10 - 100 sq m habitat area
- 3 100-1000 sq m habitat area
- 4 .1 - 1 hectare habitat area
- 5 1 - 10 hectare habitat area
- 6 >10 hectare habitat area
- 9 Unable to assess habitat area

HAB3 Microhabitat quality

- 0 No microhabitats exist or remain
- 1 Very low microhabitat quality
- 2 Low microhabitat quality
- 3 Moderate microhabitat quality
- 4 Good microhabitat quality with some indication of impairment
- 5 Very good microhabitat quality, but past impairment suspected
- 6 Pristine microhabitat quality
- 9 Unable to assess microhabitat impairment

HAB4 Native plant ecological role

- 0 No native plant species present
- 1 Native species cover and biomass <25% of natural condition
- 2 Native species cover and biomass 25-50% of natural condition
- 3 Native species cover and biomass 50-75% of natural condition
- 4 Native species cover and biomass 75-90% of natural condition
- 5 Native species cover and biomass 90-98% of natural condition
- 6 Native species cover and biomass virtually pristine
- 9 Unable to assess native plant species ecological role

HAB5 Trophic dynamics

- 0 No trophic dynamics occurring
- 1 Trophic dynamics and ecological efficiency scarcely extant (<25%)
- 2 Trophic dynamics and ecological efficiency poor (25-50%)
- 3 Trophic dynamics and ecological efficiency moderate (50-75%)
- 4 Trophic dynamics and ecological efficiency fair (75-90%)
- 5 Trophic dynamics and ecological efficiency good (90-98%)
- 6 Trophic dynamics and ecological efficiency pristine (>98%)

- 9 Unable to assess trophic dynamics and ecological efficiency

Biolota

BIO1a Native plant richness and diversity

- 0 No native plant species remaining
- 1 <25% of expected species remaining
- 2 25-50% of expected species remaining
- 3 50-75% of expected species remaining
- 4 75-90% of expected species remaining
- 5 90-98% of expected species remaining
- 6 >98% of expected species remaining
- 9 Unable to assess native vascular plant richness and diversity

BIO1b Native faunal diversity

- 0 No expected species remaining
- 1 <25% of expected species remaining
- 2 25-50% of expected species remaining
- 3 50-75% of expected species remaining
- 4 75-90% of expected species remaining
- 5 90-98% of expected species remaining
- 6 >98% of expected species remaining
- 9 Unable to assess native faunal diversity

BIO2a Sensitive plant richness

- 0 No sensitive or listed plant species remain
- 1 <25% of expected species remaining
- 2 25-50% of expected species remaining
- 3 50-75% of expected species remaining
- 4 75-90% of expected species remaining
- 5 90-98% of expected species remaining
- 6 >98% of expected species remaining
- 9 Unable to assess native sensitive vascular plant species

BIO2b Sensitive faunal richness

- 0 No sensitive or listed faunal species remain
- 1 <25% of expected species remaining
- 2 25-50% of expected species remaining
- 3 50-75% of expected species remaining
- 4 75-90% of expected species remaining
- 5 90-98% of expected species remaining
- 6 >98 of expected species remaining
- 9 Unable to assess native sensitive faunal species

BIO3a Nonnative plant rarity

- 0 >75% of plant species are non-native
- 1 50-75% of plant species are non-native
- 2 25-50% of plant species are non-native
- 3 10-25% of plant species are non-native
- 4 5-10% of plant species are non-native
- 5 2-5% of plant species are non-native
- 6 <2% of plant species are non-native
- 9 Unable to assess nonnative plant species rarity

BIO3b Nonnative faunal rarity

- 0 >75% of faunal species are non-native
- 1 50-75% of faunal species are non-native
- 2 25-50% of faunal species are non-native
- 3 10-25% of faunal species are non-native
- 4 5-10% of faunal species are non-native
- 5 2-5% of the faunal species are non-native
- 6 <2% of faunal species are non-native
- 9 Unable to assess nonnative faunal species rarity

BIO4a Native plant demography

- 0 No native plant populations remain
- 1 <25% of dominant native plant populations present and self-sustaining
- 2 25-50% of dominant native plant populations present and self-sustaining
- 3 50-75% of dominant native plant populations present and self-sustaining
- 4 75-90% of dominant native plant populations present and self-sustaining
- 5 90-98% of dominant native plant populations present and self-sustaining
- 6 Dominant native plant populations self-sustaining in a natural condition
- 9 Unable to assess native vascular plant population demography

BIO4b Native faunal demography

- 0 No natural faunal populations remain
- 1 <25% of native faunal populations present and self-sustaining
- 2 25-50% of native faunal populations present and self-sustaining
- 3 50-75% of native faunal populations present and self-sustaining
- 4 75-90% of native faunal populations present and self-sustaining
- 5 90-98% of native faunal populations present and self-sustaining
- 6 Native faunal populations self-sustaining in a natural condition
- 9 Unable to assess native faunal population demography

Freedom from Human Influences

FHI1 Surface water quality

- 0 No flow
- 1 Very poor surface water quality
- 2 Poor surface water quality
- 3 Moderate surface water quality
- 4 Good surface water quality
- 5 Very good surface water quality
- 6 Excellent surface water quality
- 9 Unable to assess desired surface water quality

FHI2 Flow regulation

- 0 Flow regulation influences have eliminated or destroyed the springs
- 1 Very extensive flow regulation influences
- 2 Extensive flow regulation influences
- 3 Moderate flow regulation influences
- 4 Limited flow regulation influences
- 5 Very limited flow regulation influences
- 6 No flow regulation effects
- 9 Unable to assess flow regulation influences

FHI3 Road, Trail, and Railroad effects

- 0 Road, trail, or railroad influences have eliminated the springs
- 1 Very extensive road, trail, or railroad influences

- 2 Extensive road, trail, or railroad influences
- 3 Moderate road, trail, or railroad influences
- 4 Limited road, trail, or railroad influences
- 5 Very limited road, trail, or railroad influences
- 6 No road, trail, or railroad influences
- 9 Unable to assess road, trail, or railroad influences

FHI4 Fencing effects

- 0 Negative influences of fencing have eliminated the springs
- 1 Very extensive negative influences of fencing
- 2 Extensive negative influences of fencing
- 3 Moderate negative influences of fencing
- 4 Limited negative influences of fencing
- 5 Very limited negative influences of fencing
- 6 No negative influences of fencing
- 9 Unable to assess influences of fencing

FHI5 Construction effects

- 0 Construction influences eliminated the springs
- 1 Very extensive negative construction influences
- 2 Extensive negative construction influences
- 3 Moderate negative construction influences
- 4 Limited negative construction influences
- 5 Very limited negative construction influences
- 6 No negative construction influences
- 9 Unable to assess construction influences

FHI6 Herbivore effects

- 0 Herbivory influences have eliminated the springs
- 1 Very extensive negative herbivory influences
- 2 Extensive negative herbivory influences
- 3 Moderate negative herbivory influences
- 4 Limited negative herbivory influences
- 5 Very limited negative herbivory influences
- 6 No negative herbivory influences
- 9 Unable to assess herbivory influences

FHI7 Recreational effects

- 0 Recreation influences have eliminated the springs
- 1 Very extensive negative recreational influences
- 2 Extensive negative recreational influences
- 3 Moderate negative recreational influences
- 4 Limited negative recreational influences
- 5 Very limited negative recreational influences
- 6 No negative recreational influences
- 9 Unable to assess recreational influences

FHI8 Adjacent lands condition

- 0 Ecological condition of adjacent landscape has eliminated the springs
- 1 Very extensive negative influences of adjacent landscape
- 2 Extensive negative influences of adjacent landscape
- 3 Moderate negative influences of adjacent landscape
- 4 Limited negative influences of adjacent landscape
- 5 Very limited negative influences of adjacent landscape
- 6 No negative influences of adjacent landscape
- 9 Unable to assess influences of adjacent landscape

FHI9 Fire Influence

- 0 Fire influences have eliminated the springs
- 1 Very extensive negative influences of fire
- 2 Extensive negative influences of fire
- 3 Moderate negative influences of fire
- 4 Limited negative influences of fire
- 5 Very limited negative influences of fire
- 6 No undesired negative influences of fire
- 9 Unable to assess influences of fire

Administrative Context

AC1 Information quality/quantity

- 0 No information or map exists
- 1 Very limited mapping or other information
- 2 Limited mapping or other information exists
- 3 A modest amount of credible mapping and other information exists
- 4 Credible mapping and other scientific information exists
- 5 A great deal of high quality mapping and other information has been gathered and compiled
- 6 The springs is used as a research site, with much high quality information available
- 9 Unable to assess information quantity and quality

AC2 Indigenous significance

- 0 No significance as an indigenous cultural site
- 1 Virtually no evidence of indigenous cultural features or resources
- 2 One culturally significant feature or resource
- 3 Two or more culturally significant features or resources
- 4 Several culturally significant features or resources
- 5 Numerous indigenous culturally significant features or resources
- 6 Cultural significance essential for the well-being of one or more indigenous cultures
- 9 Unable to assess indigenous cultural significance

AC3 Historical significance

- 0 No historical significance
- 1 Very little evidence of historically significant elements
- 2 One historically significant element
- 3 Two or more historically significant elements
- 4 Several historically significant elements
- 5 Numerous historically significant elements
- 6 Historical significance essential for the well-being of the culture
- 9 Unable to assess historical significance

AC4 Recreational significance

- 0 Desired effects of recreational use not achieved
- 1 Very extensive deviation from desired effects of recreational use
- 2 Extensive deviation from desired effects of recreational use

- 3 Moderate deviation from desired effects of recreational use
- 4 Limited deviation from desired effects of recreational use
- 5 Very limited deviation from desired effects of recreational use
- 6 No deviation from desired effects of recreational use
- 9 Unable to assess deviation from desired effects of recreational use

AC5 Economic value

- 0 The springs has no economic value
- 1 Very limited economic value
- 2 Limited economic value
- 3 Modest economic value
- 4 Considerable economic value
- 5 High economic value
- 6 Very high economic value
- 9 Unable to assess economic value

AC6 Conformance to mgmt plan

- 0 No management plan
- 1 Minimal management planning
- 2 Very preliminary management plan
- 3 Management plan exists, but receives little management attention
- 4 Management plan given moderate attention
- 5 Management plan given substantial management & legal consideration
- 6 Management plan fully implemented and followed
- 9 Unable to assess conformance to management plan

AC7 Scientific/educational value

- 0 No features of scientific or educational interest
- 1 One scientifically or educationally important feature
- 2 Two features of scientific or educational interest
- 3 Several features of scientific or educational interest
- 4 4-9 features of scientific or educational interest
- 5 At least 10 features of scientific or educational interest
- 6 Numerous features of scientific or educational interest
- 9 Unable to assess scientific or educational significance

AC8 Environmental compliance

- 0 No socioenvironmental compliance conducted or considered
- 1 Very little socioenvironmental compliance conducted or considered
- 2 Little socioenvironmental compliance conducted or considered
- 3 Preliminary socioenvironmental compliance conducted
- 4 Socioenvironmental compliance undertaken, not yet completed
- 5 Socioenvironmental compliance completed, not enacted
- 6 Environmental compliance, and designation of critical habitat, is complete
- 9 Unable to assess environmental compliance

AC9 Legal status

- 0 No land, water, or ecosystem legal rights exist or are recognized

Site _____ Date _____

- 1 Rights may exist but have not been adjudicated or enforced
- 2 Rights exist but application for those rights/ uses are pending; no enforcement
- 3 Rights exist and applications have been made; limited enforcement
- 4 Rights applications have been completed; moderately robust enforcement
- 5 Rights have been established; robust enforcement
- 6 Rights established and defended; legislative protection; robust enforcement
- 9 Unable to assess legal status

Risk

- 0 No risk to site
- 1 Negligible risk to site
- 2 Low risk to site
- 3 Moderate risk to site
- 4 Serious risk to site
- 5 Very great risk to site
- 6 Extreme risk to site
- 9 Unable to assess risk to site

Site _____ Date _____

Information Source _____ Cultural Radius (meters) _____

Cultural Values

Archaeological Value

- 0 No archaeological evidence present at or near spring
- 1 Almost no evidence of archeological remains near the spring
- 2 Minor evidence of archaeological artifacts near the spring (i.e., ceramics)
- 3 Moderate evidence of archaeological remains near the springs; hunting camp remains, potentially including hearth(s) but no dwellings evident
- 4 Artifacts, petroglyphs, minor ruins, and/or irrigation works are present, demonstrating fairly extensive prehistoric use of the site
- 5 Artifacts, petroglyphs, ruins, and/or water works, and dwelling sites are present, demonstrating extensive prehistoric use
- 6 Artifacts, petroglyphs, remains, and extensive ruins nearby, protected by the tribe due to great archaeological significance
- 9 Unable to assess archaeological value

Petroglyphs
Shrines
Walls
Jewelry
Ceramics
Flakes
Hearths
Ruins
Irrigation
Middens
Agriculture
Human Remains
Historical Archaeology
Other archaeology

Education/Knowledge Value

- 0 No knowledge of the site recorded in tribal history or academic records, and no information reasonably expected to exist
- 1 Knowledge of site expected to exist, but not available, no longer taught
- 2 Knowledge of site is documented but is minimal and not used in education or research
- 3 Moderate knowledge of site exists; is used to a moderate extent in education and/or as a research site
- 4 Fairly significant education and/or research significance
- 5 Very good educational and/or research significance, providing trans-generational knowledge
- 6 Outstanding educational and/or research significance; trans-generation knowledge; great concern about protecting site for educational purposes
- 9 Unable to assess educational or research significance

Youth education
Elder knowledge
Trans-generational
Culturally-specific
Academic research
Academic education
Non-academic education
Other knowledge

Ethnoecology

- 0 No record or presence of plant and/or animal species used for food, utilitarian, food, medicinal, ceremonial, or other purposes

- 1 Former presence of ethnobiological resources, but no longer present, or very few ethnobiological resources
- 2 Only 1 ethnobiologically important species present, or only a few species that can readily be obtained elsewhere
- 3 Several ethnobiologically important species present, although they can be found elsewhere
- 4 Several ethnobiologically important species present, of which at least one is difficult to acquire elsewhere
- 5 Numerous ethnobiologically important species present, with one or more being unique to the site
- 6 Many ethnobiologically important species present, including many that cannot be found elsewhere
- 9 Unable to assess ethnobiologically important species

Plants

Used for food
Firewood, constr, etc.
Medicinal purposes
Ceremonial purposes
Extirpated species
Endangered species
Restoration potential
Multiple use/other

Animals

Used for food
Utility animals
Medicinal purposes
Ceremonial purposes
Extirpated species
Endangered species
Restoration potential
Multiple use/other

Ethnogeological processes

Dyes
Paints
Ceramics

Tribal/Band Historical Significance

- 0 History of the site has been lost and is not taught in neither academic nor non-academic settings

- 1 History of the site is very limited and poorly available
- 2 History of the site is limited, primarily available in unpublished reports (i.e., water resources, cultural preservation office, etc.)
- 3 History of the site is moderately available and not well known
- 4 Site history information availability is good and relatively widely known
- 5 Site history information availability is very good and quite widely known in both academic and non-academic settings
- 6 Site history information is excellent, and is taught by the elders to other tribal members in both academic and non-academic settings
- 9 Unable to assess tribal history of the site

Spring on Historic Route

Site Sacredness

- 0 No record of historical or contemporary site sacredness; no possibility of the site being sacred
- 1 Site sacredness is very minor; sacredness possible but not specifically recognized
- 2 Site sacredness is recognized, but has no specific sacred role or function
- 3 Site sacredness is moderate, related to one specific role or function
- 4 Site sacredness is fairly high, related to two specific roles or functions
- 5 Site is highly sacred, related to several specific roles or functions
- 6 Site is very highly sacred, related to many specific roles or functions
- 9 Unable to assess sacredness of site
 - Sacredness of water
 - Sacredness of traditional foods
 - Sacredness of materials
 - Sacredness of medicines
 - Sacredness of ceremonial substances
 - Sacredness of archaeological remains
 - Sacredness of stories
 - Spirits or divine beings
 - Passage point to/from other worlds
 - Significance in afterlife
 - Site is sacred
 - Site is sacred for its pristine character
 - Site important as route or waypoint

**National Registry of Historic Places
NRHP Condition**

- 0 Site has no potential for listing with the Tribe(s) or non-tribal agencies
- 1 Site has not been recognized by Tribe(s) as having potential

- for NRHP status, or has been recognized as having very little potential
- 2 Site has been recognized by the Tribe(s) and/or non-Tribal agencies as having low potential for NRHP status
- 3 Site has been recognized by the Tribe(s) and/or non-Tribal agencies as having moderate potential for NRHP status, but not formally proposed
- 4 Site is recognized and listed with the Tribe(s), and NRHP status has been proposed
- 5 Site is recognized and listed with the Tribe(s), and NRHP status is anticipated and pending
- 6 NRHP status has been fully completed with both the Tribe(s) and the federal government
- 9 Unable to assess NRHP potential

Application Status

- 0 No culturally significant properties exist
- 1 NRHP status application completed
- 2 NRHP application submitted
- 3 NRHP status pending acceptance of application
- 4 NRHP status approved, but process not complete
- 5 NRHP status approved
- 6 NRHP status established
- 9 Unable to assess NRHP process

Recognized by Tribe as worthy of listing
 Recognized by agencies as worthy of listing
 Application submitted and refused

Economic Value

- 0 No economic use or sale of springs resources
- 1 Very little economic value OR formerly of very limited economic value, but no longer used for agriculture, recreation, or ethnobiological economics
- 2 Low economic value; use or sale of springs resources depends on erratic availability of resources, weather conditions, etc
- 3 Moderate economic use(s) or value of springs resources, primarily for single family subsistence; limited financial benefits to larger community
- 4 Good economic uses and sale of springs agricultural, recreation, and/or ethnobiological resources to the Tribe and/or external communities
- 5 Very good economic uses and sale of springs' agricultural, recreation, and/or ethnobiological resources to the Tribe and/or external communities
- 6 Tribe receives excellent financial benefits from the use(s) and sale of springs agricultural, recreation, non-use, and/or ethnobiological resources
- 9 Unable to assess economic value to the Tribe and/or external communities

Single family use/sales
 Communal use/sales
 Tribal use/sales
 Livestock support
 Potable water
 Irrigation water

- Mineral extraction
- Mining permits
- Electrical power
- Recreational visitation
- Non-agricultural plants
- Non-agricultural animals
- Aquatic agric. plants
- Wetland agric. plants
- Nonhunted ethnofaunal
- Native fish
- Farmed fish
- Fishing permits
- Wildlife
- Hunting licenses
- Real estate
- Non-use values
- Other economic values

- 6 Extensive use—8 or more uses and non-use value
- 9 Unable to assess tribal use or non-use value

- Tribal water use
- External water use
- Irrigation use
- Agricultural use
- Ceremonial use
- Fishing use
- Hunting use
- Gathering use
- Educational use
- Mineral extraction
- Fuel use
- Energy use
- Aesthetic use
- Recreational use
- Guiding visitation use
- Route in use

Tribal Legal Significance

- 0 No legal interest or consideration of the site's resources
- 1 Little to no legal status; very little outside interest
- 2 Very low legal status; little outside interest
- 3 Moderate legal significance – some outside interest
- 4 Legal status is fairly well established, and the site is fairly well protected
- 5 Site legal status is clearly established, and may apply to more than one Tribe
- 6 Site legal status very clearly established; legal standing is an important precedent
- 9 Unable to assess legal status

- Tribal—individual
- Tribal-clan
- Tribal
- Tribal—multicultural
- State
- Federal
- Agency
- Other

Tribal Contemporary Use

- o Tribal use or non-use value
- 1 No direct use but may have potential or non-use value
- 2 One minor use and may have potential non-use value
- 3 Slight use—2 uses plus some non-use value
- 4 Moderate use—3-5 uses plus some non-use value
- 5 Much use—5-7 uses plus some non-use value