Woods, Penelope D

From: borderinn@aol.com
Sent: Tuesday, October 11, 2011 2:42 PM
To: Woods, Penelope D
Subject: DEIS comments from Great Basin National Heritage Area
Attachments: To_Penny_Woods[1].docx

Attached is the Heritage Area comments for the Draft EIS.
A hard copy was mailed this morning.

Denys Koyle

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The Great Basin Heritage Area Partnership (GBHAP) is the designated cooperating (managing) entity for the Great Basin National Heritage Area (GBNHA). The Heritage Area was created by Congress in 2006 in recognition of its significant heritage features emblematic of the entire Great Basin region. The GBNHA encompasses White Pine County in Nevada, Millard County in Utah and adjacent tribal lands in Nye County Nevada, Juab and Tooele County in Utah. The mission of the GBHAP is derived from the enabling legislation for the GBNHA. Its mission is: *To develop and enable partnerships to help identify, research and evaluate, conserve, protect, interpret and promote the archaeological, historical, cultural, natural, scenic and recreational resources of the Great Basin National Heritage Area in a way that enhances economic opportunity without managing or regulating land use.*

The last phrase in the mission is not to imply that the GBHAP is disinterested in the way lands within and impinging upon its area are in fact managed or used. Clearly the way lands are managed or used can have potential effects on the heritage features that the GBHAP is bound to preserve and protect and promote for stimulating regional economic vitality—particularly for tourism. In fact one of the programs that the GBHAP pursues is practicing vigilance with respect to proposed plans for change within the region and commenting as necessary with respect to potential impacts of proposed change on the heritage resources of the GBNHA. The proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project has become one such project.

The purpose of this letter is to provide comment is the Draft Environmental Impact Statement (EIS) for the Clark, Lincoln, and White Pine Counties Groundwater Development Project

We understand that the original comment period was scheduled to close on September 9, 2011 but has now been extended to October 15, 2011.

We have carefully read the sections of the Draft EIS that most particularly impinge on the heritage features within the GBNHA—specifically the chapters on air, vegetation, wildlife, aquatic biological resources, recreation, transportation, special designations, visual resources and cultural resources.

The review was held to assure that the EIS:

1. **Identified and addressed all project facilities and effects;**
2. **Provided sufficient information about** how the **project** would be constructed and construction scheduled so that related environmental impacts may be identified;
3. **Used sufficient methods to assess** potential environmental effects;
4. **Suggested effective mitigation** of potential short and long-term environmental effects;
5. R**ecognizes all relevant environmental impacts** on with heritage features and on impacts on potential to stimulate local economic vitality associated with implementing the project relative to the three main pipeline alignments;
6. **Recognizes how effects differ** with each of the four alignment options (as much as these alignments are relevant within the GBNHA); and
7. Addresses the relative environmental **effects of implementing future facilities.**

We find that the EIS has done an adequate and acceptable job of meeting the objectives outlined above. However, we wish to point out that identifying all impacts and suggesting mitigating steps will not eliminate impacts. While mitigation may reduce impacts in some categories of impact to technically acceptable levels according to NPS, BLM or NFS standards, in other categories of impact there are no standards. The attached list of acknowledged impacts was excerpted from various portions of the EIS. We need provide no additional data or impact conclusions. When the impacts of all the areas of our concern are considered cumulatively we find the project to be unacceptable.

We know that despite all the data and statements of impact the ultimate decision whether to provide a FONSI or approve the project may be a subjective one.

So ultimately the argument may be a philosophical one. The proposed project only takes from the GBNHA. It provides nothing in return. The benefits and liabilities are unequal. What it takes for use outside the region is water. Water may be scarce in the Las Vegas Area but it is not unique in the world. What will be taken away locally as a result of this project is local uniqueness--a small portion of the native vegetative character, the ubiquity of wildlife and aquatic life. It will diminish the unique recreational, visual and cultural resource. Bit by bit the GBNHA will be changed—made more like all other (and less unique) man dominated places on earth. And for what? So that the current residents in Vegas have more water? No, they can find enough through current proven conservation techniques. Any additional water is for growth because recently much of the local economy has been based on growth. But infinite growth anywhere is unsustainable. Ultimately our society must look for an economic model that provides modest stable prosperity based on stability rather than a growth economy based on growth. That search can begin when this project is rejected.

Board of the Great Basin Heritage Area Partnership

Denys Koyle
President

The following is a sampling of impacts of concern to the GBNHA acknowledged by the EIS:
They are direct excerpts from the document with no intent to provide an alternate meaning as a result of removing them from context.

Air

Conclusion. Localized air quality emissions due to construction activities are expected to be short term (5 years or less). Conservative assumptions were used to estimate tailpipe emissions from construction and maintenance vehicles. Based on these assumptions, the potential annual emissions vary from less than 1 ton per year of SO_2, to approximately 24,000 metric tons of CDE. Emissions from construction are not expected to cause or contribute to exceedences of any AAQS nor impair visibility conditions at GBNP because the construction equipment would be operated in accordance with required permits on an as-needed-basis over a large project area.

Conclusion. Localized fugitive dust emissions due to construction activities are expected to be short term (5 years or less). Conservative assumptions were used to estimate fugitive dust emissions from construction activities. Based on these assumptions, it is estimated that 1,172 pounds per day of PM_{10} (176 tons per year) and 117 lbs/day of $PM_{2.5}$ (18 tons per year) will be emitted in the project area.

Localized fugitive dust emissions due to maintenance activities are expected to continue for the life of the project. It is estimated that 1 ton per year of PM_{10} and 0.1 ton per year of $PM_{2.5}$ will be emitted in the project area due to fugitive dust associated with maintenance vehicles. At these low levels, fugitive dust emissions from maintenance vehicles are not expected to impair visibility conditions at the GBNP.

Conclusion. A majority of the windblown dust emissions due to surfaces disturbed due to construction are expected to be short term (5 years or less) until surfaces are revegetated. It is estimated the short-term PM_{10} windblown dust would be 1,750 tons per year and the $PM_{2.5}$ windblown dust would be 175 tons per year over the whole project area. The windblown dust over the ROW areas that will not be revegetated (and the impacts are therefore long-term) is estimated to be 144 tons per year of PM_{10} and 14 tons per year of $PM_{2.5}$ near the permanent ROW. Windblown dust emissions from disturbed surfaces are not expected to impair visibility conditions at the GBNP.

Conclusion [from any alternative though amounts may differ—emphasis added]

• It is predicted from model simulations that pumping drawdown of 10-feet and greater would potentially lead to changes in vegetation that could increase windblown dust emissions. The level and extent of these impacts are highly uncertain and the following estimated impacts should be used for comparison purposes only. It is estimated that an additional 1,700 tons of PM_{10} would be emitted per year after full build out, 24,000 tons of PM_{10} would be emitted per year for full build out plus 75 years, and 34,700 tons of PM_{10} would be emitted per year for full build out plus 200 years. Also, it is estimated that an additional 170 tons of $PM_{2.5}$ would be emitted per year after full build out, 2,400 tons of $PM_{2.5}$ would be emitted per year for full build out plus 75 years, and 3,470 tons of $PM_{2.5}$ would be emitted per year for full build out plus 200 years. **At these levels, it is possible that windblown dust emissions from groundwater drawdown could impair visibility conditions at GBNP.** The extent of possible visibility impairment is highly uncertain.

Vegetation

Proposed Action, Alternatives A through C
Construction and Facility Maintenance

Conclusion. Approximately 12,208 acres of native shrublands and woodlands removed or disturbed by construction would require 20 to more than 200 years for recovery to similar species composition and vertical structure as adjacent undisturbed areas. Approximately 64 acres of annual and perennial grassland and marshland cover types would require from 2 to 15 years for recovery. Approximately 1,004 acres of natural land cover types would be permanently converted to aboveground industrial uses. Operational maintenance activities are expected to disturb small areas, primarily within the permanent ROW. The area of vegetation communities affected by construction surface disturbance would represent less than 1 percent of the surface area of these cover types within the hydrologic basins occupied by the Proposed Action.

ACMs include measures to salvage and preserve soil and during construction, to follow best practices for revegetation seeding and erosion control, to follow a long-term restoration monitoring program, and to obtain a written release of restoration success from the BLM. These measures provide the framework for meeting the desired conditions for vegetation community types specified in the Ely District RMP within the time frames expected for natural recovery of these communities.

3.5.2.2 Proposed Action, Alternatives A through C
Construction and Facility Maintenance
Vegetation Community Surface Disturbance and Restoration
Conclusion. The proposed ROWs for 306 miles of buried water pipelines and 323 miles of overhead power lines are at high risk for invasion by noxious and non-native weed species. Construction and operational maintenance equipment travelling from weed-infested areas into weed-free areas could disperse weed seeds and propagules, resulting in new weed establishment. SNWA would implement a variety of measures to be included in an integrated weed management plan. These measures include management of weed contaminated topsoil, pre-construction weed treatments, and equipment wash stations to prevent the transport of weed plants and seeds along the ROW into new areas. SNWA would continue to monitor and control weeds within the ROW in accordance with overall restoration responsibilities.

3.5.2.3 Alternative [all though the amounts may vary]
Construction and Facility Maintenance
Vegetation Community Surface Disturbance and Restoration
Conclusion. Approximately 8,764 acres of **native shrublands and woodlands removed or disturbed by construction would require 20 to more than 200 years for recovery** to similar species composition and vertical structure as adjacent undisturbed areas. Approximately 10 acres of annual and perennial grassland and marshland cover types would require from 2 to 20 years for recovery. Approximately 800 acres of natural land cover types would be permanently converted to aboveground industrial uses. ACMs include measures to salvage and preserve soil during construction; to follow BMPs for re-vegetation seeding and erosion control; to follow a long term restoration monitoring program; and to obtain a written release of restoration success from the BLM. Implementation of these measures would insure that vegetation species cover and composition would recover within time frames similar to natural recovery rates, or potentially more quickly over the majority of the surface disturbance areas.

Proposed mitigation measures:
None.

Residual impacts include:

• The long (20- to 200-years) restoration periods for shrublands and woodlands on 8,764 acres of disturbed ROWs because of sparse and uncertain precipitation, and soil-induced growth constraints (salinity, alkalinity, shallow soil depths);

• The permanent removal of shrubland (primarily sagebrush shrubland, greasewood/salt desert shrubland, Mojave mixed desert scrub) from 800 acres required for aboveground facilities; and

An unknown fraction of **some disturbed communities would not recover** to previous composition and density because of specialized soil requirements (e.g., winterfat on hardpan/caliche soils within the greasewood/salt desert shrubland type).

Table 3.5-14 Summary of Vegetation Resource Impacts, Applicant-committed Protection Measures, and Monitoring and Mitigation Recommendations for Proposed Action

Effects/Conclusions

• Groundwater drawdowns from pumping (index of 10 feet or greater) would likely result **a long-term changes in plant species composition in the Wetland/Meadow ET area from wetland species such as rushes, sedges, and grasses, to upland species of grasses and shrubs.**

• Groundwater drawdowns from pumping (index of 10 feet or greater) would likely result in **lower densities of phreatophytic shrubs such as greasewood and an increase in upland species of grasses and shrubs that are not completely, or partially dependent on reliable sources of groundwater.**

• Groundwater drawdowns from pumping (index of 10 feet or greater) and changes in spring flows would likely increase stress on **spring-fed aquatic vegetation and riparian shrubs**. If these water sources dried up over a long period of time (5 years or more), **it is likely these communities would not recover** and vegetation community composition would change to upland species.

• Successional changes in spring-dependent wetlands and meadows could **reduce the availability of Tribal traditional use wetland and riparian plants in Spring, Snake, and Lake valleys.** The Ute ladies'-tresses orchid has not been identified in any of the hydrologic basins potentially affected by drawdown. If populations of this species are found in the future, evaluations of groundwater drawdown risk to this species would be conducted.

[Cumulative effects on vegetation:]

 Spring Valley – The Proposed Action would potentially **cause substantial drawdown effects to both basin shrubland and wetland/meadow communities. The adverse effects on these communities would occur in all three model periods.** The impact parameters indicate that the Proposed Action would contribute most of the incremental cumulative effects on basin shrubland and wetland/meadow communities in this basin. In total, the Proposed Action would affect a maximum of 103,798 acres of basin shrubland and 4,252 acres of wetland/meadow over the three model periods.

• **Snake Valley** – The Proposed Action would potentially cause substantial drawdown effects to both basin shrubland and wetland/meadow communities. The adverse effects on these communities would occur in all three model periods, though **the greatest potential impacts would occur during the full build out plus 75 years and full build out plus 200 years model time frames**. The impact parameters indicate that the Proposed Action would contribute to all of the incremental cumulative effects on basin shrubland and wetland/meadow communities in this basin. **In total, the Proposed Action would affect 49,068 acres of basin shrubland and 1,927 acres of wetland/meadow for the three model periods.**

Wildlife

Construction Water Use
Conclusion. Construction water use could adversely affect water sources for wildlife, if surface water is located within the drawdown area and connected to groundwater sources.

Conclusion: Habitat for big game species would be temporarily disturbed by construction and a portion would be permanently converted to industrial uses.

Conclusion: [thousands of] 12,208 acres of native shrubland and woodland habitat would be removed or disturbed by construction and would require 20 to more than 200 years for recovery to similar species composition and vertical structure as adjacent undisturbed areas. Sixty-four acres of annual and perennial grassland and marshland habitats would require from 2 to 0 years for recovery.

3.6.2.2 Proposed Action, Alternatives A through C
Right-of-way Areas
Construction and Facility Maintenance

Conclusion: Compliance with the ESA would require implementation of measures to reduce the effects of anticipated
take of desert tortoise, including through habitat loss or degradation. Potential impacts would be reduced based on compliance with recovery plans and RMPs and adherence to ACMs.

Conclusion: Habitat for greater sage-grouse would be temporarily disturbed by construction and a portion would be permanently converted to industrial uses as identified in **Tables 3.6-6** through **3.6-8**. Nine active leks fall within 2 miles
of project ROWs. Eight of the nine active leks are within 2 miles of power line ROWs. Construction and facility maintenance impacts could include loss of nests, eggs, or young, nest or lek abandonment, and increased potential for
disruption of seasonal movements, collisions with power lines and vehicles, and predation or harassment. ACMs would
reduce potential impacts to greater sage-grouse.

Conclusion: Habitat for bats would be temporarily disturbed by construction **and a portion would be permanently converted to industrial uses** as identified above. ACMs and the protections afforded in the RMPs would reduce potential ROW construction and facility maintenance impacts to bats.

Residual impacts include:
• The long-term (20 to 200 years) restoration periods for woodland habitats disturbed by ROW construction make this habitat unavailable for forage and roosting for bats; and • An unknown portion of habitats may be degraded because recovery may not fully occur or proximity to permanent facilities makes the habitat less suitable.

[And what about loss of insets upon which they feed resulting from a change in vegetation?]

Conclusion: Construction would result in the incremental, long-term reduction of up to approximately 2,590 to 6,231 acres of habitat within four of the groundwater development basins (Cave, Dry Lake, Snake, and Spring valleys). Of this disturbance, approximately 1,747 to 4,180 acres of habitat would be permanently converted to industrial uses. Other **impacts would include animal displacement (short and long term), habitat fragmentation (long term), increased potential mortalities from vehicle traffic (short and long-term), potential loss of nests, eggs or young, and potential for increased collisions and predation given additional perching sites on power lines**. There are 13 active leks within proposed groundwater development areas and 18 active leks within 2 miles. Six of the seven active leks in southern Cave Valley are within 2 miles of groundwater development areas. All 10 of the active leks in Spring/Snake population management unit fall within groundwater development areas in Spring and Snake valleys and an additional two active leks in southern Spring Valley are also within proposed Spring Valley groundwater development areas. Protections provided by the RMP and the ACMs would reduce impacts, but **potential for long term impacts to local greater sagegrouse populations exists.** See ACMs listed above and the corresponding section under ROW areas for relevant RMP protections and ACM numbers.

At the full build out time frame and within nesting brooding or summer range for greater sage-grouse, ET wetland/meadow and basin shrubland as well as springs and perennial streams are in areas that may be impacted by drawdown in Spring Valley. In the full build out plus 75 years time frame, three basins have ET vegetation types, springs or perennial stream segments in areas at potential risk within these two habitat ranges. By full build out plus 200 years, six basins contain these potentially affected habitats based on groundwater model results. **Potential pumping impacts, when combined with potential groundwater development surface impacts, could result in the reduction or even loss of some local sage-grouse populations in Cave, Snake and Spring valleys.**

Aquatic Biological Resources

Conclusion. If construction occurs in the fall months, instream disturbance at the Snake Creek Crossing in Snake Valley could disturb spawning activity and alter spawning habitat for brown trout. No RMP management, direction BMPs, or ACMs are available to reduce impacts on trout spawning in Snake Creek.

Conclusion. Construction activities at streams with standing or flowing water would result in short-term erosion and sedimentation. One perennial stream (Snake Creek in Snake Valley) would be crossed by the pipeline ROW. Soil disturbance within the ROW also could affect three unnamed springs and one named spring (Big Springs) in Snake Valley due to their location within 500 feet of the ROW boundary. Vehicle and equipment use within the ROWs also pose a short-term risk of fuel spills to aquatic habitat and species. These activities could alter water quality and cause physiological stress or mortalities. BMP management direction restricts vehicle fueling within 100 feet of

waterbodies. BMPs and numerous ACMs would be implemented to reduce erosion effects on waterbodies. **These measures would result in low level impacts to aquatic habitat and species.**

Conclusion. Construction water use could adversely affect aquatic habitat and species, if surface water is located within the drawdown area and connected to groundwater sources.

Conclusion. Vehicle **traffic within 431 miles of access roads could result in alteration of amphibian habitats** (Snake Creek, Steptoe creek, and temporary waterbodies) and potential mortalities during breeding movements to waterbodies in the spring or summer and movement to upland areas in late summer and fall. Risk of mortalities would be highest near waterbodies.

Summary of Aquatic Biological Resource Impacts, Applicant-committed Protection Measures, and Monitoring and Mitigation Recommendations for Proposed Action Pumping

Effects/Conclusions

• Flow reductions would modify habitat by decreasing depths, water velocities, and wetted area in spring/pond/lake and stream habitats. **A total of 30 springs/ponds/lakes and 33 streams are at risk when considering the longest model time frame.**

• Effects would be most pronounced in riffle habitats in streams and spring inflow and outflow areas. Effects on pool habitats would depend on the magnitude of the flow change and size of the pools. Reduced flows could adversely affect aquatic habitat by altering thermal regimes, increasing sedimentation, and reducing riparian cover. A complete loss of habitat could occur in small springs and larger springs such as Big Springs in Snake Valley.

• Flow reductions could adversely affect aquatic species by reducing abundance and diversity, altering composition, reducing food sources, limiting spawning and early life stage development, and decreasing individual health condition.

• Flow reductions in 9 springs in Spring Valley and 1 spring in Lake Valley could result in habitat reductions and adverse effects on the special status amphibian, northern leopard frog.

• Flow reductions in Big Springs Creek and Lake Creek in Snake Valley could result in substantial loss of habitat and aquatic species.

• Flow reductions in 4 springs in Snake Valley could result in loss of bifid duct and longitudinal gland pyrg populations at these locations.

• Substantial flow reductions in Butterfield, Flag, and Wambolt springs could result in the loss of Butterfield, Flag, and Lake Valley pyrg populations due to their limited occurrence (one spring/one basin).

• Conflicts with recovery or conservation management objectives could occur for four species: Pahrump poolfish (Shoshone Ponds), White River springfish (Flag Springs), Bonneville cutthroat trout (2 streams in Spring Valley and 4 streams in Snake Valley), and northern leopard frog (10 springs).

• Game fish species considered to be traditional values to regional Tribes could be affected in Snake, Spring, Lake, and Lower Meadow Valley Wash.

Table 3.7-7 Summary of Aquatic Biological Resource Impacts, ACMs, and Monitoring and Mitigation Recommendations for Alternative A Groundwater Development

Effects

• Construction could alter aquatic habitat on a short-term basis in 17 perennial streams and 5 springs with aquatic biological resources. Riparian vegetation near waterbodies could be affected on a long-term basis. Surface disturbance and vehicle/equipment could affect water quality from sediment input and risks from fuel spills on a short-term basis.

• Instream activities in the spring or fall could affect trout spawning on a short-term basis.

• Vehicle traffic near waterbodies could cause mortalities to amphibians during movement periods especially during the spring and summer breeding periods.

• Special status Bonneville cutthroat trout could be affected in one stream within the groundwater development areas (Big Wash in Snake Valley).

• Special status amphibian species could be affected in three springs within the groundwater development areas.

• Springsnail species could be affected in spring habitats within two of the groundwater development areas (one unnamed spring in Spring Valley and one spring in Snake Valley).

• Conflicts with conservation management objectives could occur for two species: Bonneville cutthroat trout (Big Wash) and northern leopard frog (three springs).

• Game fish species considered to be traditional values to regional Tribes could be affected in Snake and Spring valleys.

Recreation:

Pioche SRP area (1,148 acres), Chief Mountain SRMA (178 acres), Las Vegas Valley SRMA (184 acres), **Loneliest Highway SRMA (695 acres), and Steptoe Valley WMA (4 acres).** The surface disturbance anticipated in the recreation areas would comprise <1 percent of any recreation area and impacts would be localized. Surface disturbance, noise, and sights and sounds of other people during construction in these areas would **detract from the natural character of the area and diminish the recreation experience in the short-term. Minimal long-term adverse impacts to recreation in these areas would result from alteration of the recreation setting in areas with aboveground structures and vegetation alteration**. Any increase in traffic associated with operations and maintenance, even in remote areas of the ROW would likely be unnoticeable by recreationists in the area.

Visual Resources

Conclusion. Short-term effects to the scenic quality and viewer sensitivity of the study area would result from the construction of the pipeline, aboveground facilities and power lines; project surface disturbance (ROW); increased vehicle traffic and increased human presence; and construction-generated dust. Project surface disturbance areas would require vegetation clearing, grading, occupancy, and restoration activities.
Facility operation and maintenance would locally change the long-term character of the landscape in most of the study area, which contains only minor human modification north of Apex. **Long-term impacts to visual resources would consist of moderate to strong form, line, color, and texture contrasts of the revegetated pipeline ROW, access roads, transmission lines, and non-linear project components with the existing predominantly natural setting.** Periodic vehicle and worker activity associated with operations and maintenance would be periodically visible.

Conclusion. Short-term effects to the scenic quality and viewer sensitivity of the study area would result from the construction of the pipeline, aboveground facilities and power lines; project surface disturbance (ROW); increased vehicle traffic and increased human presence; and construction-generated dust. Project surface disturbance areas

would require vegetation clearing, grading, occupancy, and restoration activities.
Facility operation and maintenance would locally change the long-term character of the landscape in most of the study area, which contains only minor human modification north of Apex. Long-term impacts to visual resources would consist of moderate to strong form, line, color, and texture contrasts of the revegetated pipeline ROW, access roads, transmission lines, and non-linear project components with the existing predominantly natural setting. Periodic vehicle and worker activity associated with operations and maintenance would be periodically visible.

Conclusion**. Drawdown of groundwater would potentially dry out the soil moisture profile of ET area vegetation (wetland/meadow, basin shrubland), and vegetation dependent on spring flows.** Drawdown induced root zone stress may result in broad scale vegetation composition changes at various locations across the landscape. It is expected that the overall pattern and form of native vegetation communities within the landscape would remain similar over time. Because these vegetation composition changes would proceed slowly, it is unlikely that most public viewers (primarily highway travelers and dispersed recreational users) would recognize a change in vegetation community appearance as a distinct contrast relative to the surrounding landscape. On a more site-specific scale, valley residents (ranchers and farmers), and tribal members who visit traditional use areas may recognize changes in vegetation communities over time because of long term familiarity with specific landscape features such as springs, and frequent visits to these types of sites.

Conclusion. **Cumulative effects to visual resources would occur from aboveground facilities and surface disturbance**, which include large scale facilities such as high-voltage power lines, wind energy projects, as well as ancillary facilities such as substations and roads within the viewsheds of the Proposed Action. **The Proposed Action's contribution to the development within the desert landscape would contribute cumulative visual impacts when considered with existing and future foreseeable projects within the immediate viewsheds** of Spring Valley, Dry Lake Valley, Lake Valley, Coyote Spring Valley, Delamar Valley, and Steptoe Valley.

Conclusion. The Proposed Action when considered with existing and future foreseeable projects would meet USFS and GBNP visual quality objectives for land administered by USFS and NPS, but **would not meet the intent of GBNP viewshed preservation objectives outside of NPS boundaries.**

Cultural

Conclusion. Approximately 12,300 acres would be disturbed as a result of construction activities. Direct impacts to historic properties would be proportional to the amount of ground disturbance associated with project construction. At this time, the number of historic properties that could be affected by the proposed Project is unknown. Intensive Class III inventories of all proposed disturbance areas would be conducted prior to project construction and with enough lead time to allow for evaluation of sites located during the inventories, assessment of impacts, and mitigation, if necessary. Unavoidable adverse effects to historic properties located within proposed disturbance areas or within the viewshed of proposed aboveground facilities would be mitigated in compliance with the PA. Any previously unknown archaeological sites discovered during construction activities would be handled as detailed in the PA.

Residual impacts include:

- **Project construction would result in the loss of cultural resources that are ineligible for the NRHP and located in proposed disturbance areas.** Although these sites would be recorded to BLM standards and the information integrated into local and statewide databases, the sites ultimately would be destroyed by project construction.
- How many historic properties would be adversely affected by the proposed Project is currently unknown. If historic properties are identified within proposed disturbance areas, impacts would be avoided where possible by means such as project redesign or rerouting; if avoidance is not feasible, the impacts would be mitigated in compliance with the

PA. Because some of the cultural value that is associated with these sites cannot be fully mitigated, residual impacts to these resources most likely would occur.

- **Accidental disturbance, vandalism, and illegal collecting most likely would occur where the proposed Project may result in increased public access.**
- **Impacts to historic properties as a result of a rupture and subsequent flooding would be immediate. Reactive mitigation may not be sufficient to restore the damage. Damage to or loss of these resources would occur prior to their recordation and evaluation, thereby complicating mitigation procedures.**