## APPENDIX A

**Appendix A Table**
**Comparison of Impacts of the Proposed Action, Bonneville Unit Alternative, and the No Action Alternatives**

| Resource | Spanish Fork Canyon – Provo Reservoir Canal Alternative (Proposed Action) | Bonneville Unit Alternative | No Action Alternative |
|---|---|---|---|
| Surface Water Quality | **Operation:**<br>**Utah Lake**<br>Total phosphorus concentrations: decrease near tributary inflows from dilution<br>Total phosphorus load decrease: 3.2 tons per year (-1.1%)<br>Total dissolved solids concentration range: 659 to 1,124 mg/L (+2.5% to +18%)<br>Total dissolved solids load decrease: 11,486 tons per year (-3.3%)<br>**Provo River Below Murdock Diversion**<br>Dissolved oxygen concentration: 10.3 mg/L (+2%)<br>Water temperature: 10.3 °C (-1%)<br>Total dissolved solids concentration: 257 mg/L (-6.9%)<br>Total phosphorus concentration: 0.06 mg/L (0%)<br>**Hobble Creek From Mapleton-Springville Lateral to Utah Lake**<br>Dissolved oxygen concentration: 10.3 mg/L (+17%)<br>Water temperature: 9.3 °C (-12%)<br>Total dissolved solids concentration: 230 mg/L (-22%)<br>Total phosphorus concentration: 0.05 mg/L (+25%)<br>**Spanish Fork River from Diamond Fork Creek to Moark Junction**<br>Dissolved oxygen concentration: 11.7 mg/L (-0.8%)<br>Water temperature: 10.7°C (+8.1%)<br>Total dissolved solids concentration: 345 mg/L (+21%)<br>Total phosphorus concentration: 0.15 mg/L (+25%)<br>Selenium concentration: 1.0 µg/L (0%) | **Operation:**<br>**Utah Lake**<br>Total phosphorus concentrations: decrease near tributary inflows from dilution<br>Total phosphorus load increase: 4.2 tons per year (+1.4%)<br>Total dissolved solids concentration range: 634 to 1,059 mg/L (-6.9% to +5.7%)<br>Total dissolved solids load decrease: 1,989 tons per year (-0.6%)<br>**Provo River Below Murdock Diversion**<br>Same as baseline conditions<br>**Hobble Creek From Mapleton-Springville Lateral to Utah Lake**<br>Dissolved oxygen concentration: 10.5 mg/L (+19%)<br>Water temperature: 9.3 °C (-12%)<br>Total dissolved solids concentration: 219 mg/L (-25%)<br>Total phosphorus concentration: 0.05 mg/L (+25%)<br>**Spanish Fork River from Diamond Fork Creek to Moark Junction**<br>Dissolved oxygen concentration: 11.9 mg/L (+0.8%)<br>Water temperature: 9.8°C (-1.0%)<br>Total dissolved solids concentration: 309 mg/L (+8.4%)<br>Total phosphorus concentration: 0.13 mg/L (+8.3%)<br>Selenium concentration: 1.1 µg/L (+10%) | **Operation:**<br>**Utah Lake**<br>Total phosphorus concentrations: increase or remain unchanged near tributary inflows<br>Total phosphorus load increase: 2.5 tons per year (+0.9%)<br>Total dissolved solids concentration range: 666 to 1,063 mg/L (-2.3% to +4.0%)<br>Total dissolved solids load increase: 8,465 tons per year (+2.5%)<br>**Provo River Below Murdock Diversion**<br>Same as baseline conditions<br>**Hobble Creek From Mapleton-Springville Lateral to Utah Lake**<br>Same as baseline conditions<br>**Spanish Fork River from Diamond Fork Creek to Moark Junction**<br>Dissolved oxygen concentration: 11.8 mg/L (+0.9%)<br>Water temperature: 9.9°C (-6.6%)<br>Total dissolved solids concentration: 285 mg/L (-12%)<br>Total phosphorus concentration: 0.12 mg/L (-14%)<br>Selenium concentration: 1.0 µg/L (0%) |
| Aquatic Resources | **Operations:**<br>Game fish biomass would experience an increase of 19,496 pounds over baseline | **Operations:**<br>Game fish biomass would experience an increase of 10,220 pounds over baseline | **Operations:**<br>Game fish biomass would experience an increase of 9,703 pounds over baseline |
| Wetland Resources | **Construction:**<br>1.03 acres of scattered, non-jurisdictional wetlands would be permanently lost<br>0.27 acres of scattered, non-jurisdictional wetlands would be temporarily lost<br>Mitigation proposed based on acquisition and enhancement of 10 acres of wetland near Santaquin, UT for a 9.7:1 mitigation ratio | **Construction:**<br>1.02 acres of scattered, non-jurisdictional wetlands would be permanently lost<br>0.18 acre of scattered, non-jurisdictional wetlands would be temporarily lost<br>Mitigation would be the same as for the Proposed Action | Bonneville Unit water may alleviate short term impacts to wetlands by temporally reducing groundwater pumping; however, a long term decline for wetlands affected by groundwater pumping will likely be the same for all alternatives |
| Wildlife Resources and Habitats | **Construction:**<br>Permanent habitat loss: 2.4 acres of habitat scattered throughout the impact area of influence<br>Habitat plant communities changed: 146.8 acres<br>Temporary noise impacts: 21,259 acres | **Construction**:<br>Permanent habitat loss: 1.8 acres of habitat scattered throughout the impact area of influence<br>Habitat plant communities changed: 129.1 acres<br>Temporary noise impacts: 18,980 acres | **Operation**:<br>Wetland habitat which supports wildlife could be converted to upland habitat (see wetlands) |

**Appendix A Table**
**Comparison of Impacts of the Proposed Action, Bonneville Unit Alternative, and the No Action Alternatives**

| | | | |
|---|---|---|---|
| **Threatened & Endangered Species** | **Operation:**<br>June sucker spawning habitat in lower Provo River would increase from 96 to 192 percent over baseline<br>June sucker spawning and rearing conditions would be created in Hobble Creek | **Operation:**<br>June sucker spawning habitat in lower Provo River would increase by 64 to 134 percent compared to baseline<br>June sucker spawning and rearing conditions would be created in Hobble Creek | **Operation:**<br>June sucker spawning habitat in lower Provo River would increase by 64 to 134 percent compared to baseline |
| **Recreation Resources** | **Operation:**<br>Net Annual angler days on the Spanish Fork River, Hobble Creek and lower Provo River (public access available) would increase by 36,438 over baseline | **Operation:**<br>Net Annual angler days on the Spanish Fork River, Hobble Creek and lower Provo River (public access available) would increase by 18,054 over baseline | **Operation**<br>Net Annual angler days on the Spanish Fork River and Hobble Creek would not change as compared to baseline<br>Net angler days on the lower Provo River (public access available) would increase by 19,716 over baseline. |
| **Sensitive Species** | **Operation:**<br>**Leatherside chub:** Leatherside chub would be significantly impacted in the Spanish Fork River. A reduction in fish numbers and/or biomass in the Spanish Fork River would occur as a result of change in habitat conditions (quantity and quality of instream flows or water quality.<br>**Wildlife Species:** No Impact. | **Operation:**<br>**Leatherside chub:** Impacts would be the same as under the Proposed Action<br>**Wildlife Species:** No Impact. | **Operation:**<br>**Leatherside chub:** No impact.<br>**Wildlife Species:** Wetland habitat loss could impact local populations of wetland-associated species (long-billed curlew), but would not place regional populations at risk. |

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## APPENDIX B

The joint-lead agencies have included the following general environmental commitments in the project plan to avoid and/or minimize environmental impacts to fish and wildlife resources.

### Erosion Control and Restoration

The contractor will be required to prepare an erosion control plan for District approval prior to the start of any construction work. The plan will specifically document methods to protect wetlands and riparian vegetation from construction impacts as well as all other areas.

Erosion control procedures will be implemented in areas disturbed during construction of project components, including temporary access roads and access roads that are upgraded to construction traffic standards. The contractor will be required to restore disturbed surfaces to pre-construction conditions and avoid and minimize erosion.

Temporary slope breakers will be used to reduce runoff velocity and divert waste from the construction right-of-way. They will be constructed with materials such as soil, silt fence, staked hay or straw bales, or sandbags, using the written recommendations of local land managing agencies and soil conservation authorities. In the absence of these recommendations, temporary slope breakers will be installed at the following spacing:

| Slope | Spacing |
|---|---|
| 5 percent to 15 percent | 300 feet |
| More than 15 percent to 30 percent | 200 feet |
| More than 30 percent | 100 feet |

Slope breakers will be constructed with a 2 to 8 percent outslope to divert surface flow to stable, well-vegetated areas. Slope breakers will comply with all applicable survey requirements if they extend beyond the edge of the construction right-of-way. Appropriate energy-dissipating devices will be built in the absence of a stable area, or at the end of the slope breaker, if necessary. Slope breakers, sediment barriers, mulch, erosion control fabric and thatching will be used whenever necessary to stabilize slopes and disturbed areas to prevent erosion.

Sediment barriers will be installed to keep wetlands and water bodies free of possible sedimentation resulting from construction. The barriers will be constructed of materials such as silt fence, staked rice wattles, or sandbags. They will be installed as necessary and maintained at the base of slopes adjacent to road crossings and at construction locations near water bodies or wetlands where siltation could occur.

Weed free mulch will be used on sites with low annual precipitation or high erosion potential, on slopes exceeding 15 percent, or on windy sites. Mulch will consist of noxious weed-free straw or hay, erosion control fabric or a functional equivalent. It will be applied before seeding if final cleanup (including final grading and installation of permanent erosion control measures) is not completed in an area within 10 days after the trench has been backfilled or if construction or restoration activity is delayed for extended periods, such as a seeding period restriction.

Weed free mulch will be applied at the following rates: 1 ton per acre on level ground; two tons per acre over at least 75 percent of the ground surface on all dry, sandy sites and sites with slopes greater than 8 percent; and three tons per acre if slopes are within 100 feet of water bodies and wetlands. When woodchips are used as mulch, a maximum of 1 ton per acre is applied.

Weed free mulch will be anchored to help stabilize erodible soils by using a mulch crimper or disk with notched coulters to crimp the mulch to a depth of 2 to 3 inches. If a blower is used, mulching materials should be at least 8 inches long to allow anchoring. Liquid mulch binders will be used at recommended manufacturer rates and will not be used within 100 feet of wetlands or water bodies.

Erosion control fabric such as jute thatching or bonded fiber blankets will be used on water body banks during final re-contouring or on extremely steep slopes. The fabric will be anchored with staples or other anchoring devices.

Existing topsoil will be carefully removed and stored during trenching operations and replaced after trenches are backfilled. Where drainage occurs, gaps will be left between topsoil piles to prevent increased water saturation. Topsoil stripping activities will cease during excessively wet weather, and topsoil will not be stockpiled for longer than 2 years. Additional topsoil will be added, if needed, to allow vegetation growth.

Final cleanup of an area (including replacement of topsoil, final grading, and installation of permanent erosion-control structures) will be completed within 10 days after backfilling. If unavoidable delays occur, final cleanup will be completed as soon as possible and always before the end of the next recommended seeding season.

If necessary, a travel lane could be left open to allow access by construction traffic. When access is no longer required, the lane will be removed and the right-of-way restored.

After construction, soil will be replaced and worked with a disc, chisel plow, or other appropriate implement as practical to reduce compaction and leave soil in proper revegetation condition.

Permanent trench breakers will be built to stop the flow of subsurface water along trenches. These will be constructed of such materials as concrete, sandbags or polyurethane foam. Trench breakers will be installed at the base of slopes adjacent to water bodies and wetlands. When necessary, an engineer or similarly qualified professional will determine the need for and spacing of trench breakers. Topsoil will not be used in trench breakers.

Seedbeds will be prepared in disturbed areas to a depth of 3 to 4 inches using appropriate equipment. If hydroseeding is used, the seedbed will be scarified to facilitate lodging and germination of seed. Seeding will be done in consultation with the Utah Division of Wildlife Resources or other government entity.

To maximize the success of revegetation, planting will occur during appropriate climatic periods in properly prepared soil. Planting and fertilizer application techniques will be chosen for specific conditions at each site and the needs of selected plant species. Temporary erosion control measures will be used at any site where seeding has been delayed.

Where possible, natural seed mixes of local origin will be used along with mulching and no, or low, amounts of fertilizer. The criteria for selecting species to plant in disturbed areas will include

hardiness, compatibility with wildlife, capacity to self-perpetuate, and rooting characteristics that help stabilize soil.

Temporary traffic barriers will be placed as necessary to keep vehicles from traveling over areas that have been revegetated. Traffic barriers may include temporary fencing, concrete jersey barriers, berms and boulders.

Trench boxes will be used whenever a buried pipeline or upgraded transmission line passes through an urban area, particularly where there would be a narrow ROW.

In urban areas, wherever possible, removal of large trees with developed root structure will be minimized, and a minimal number of plant roots will be cut to minimize plant damage.

Where trees are removed and cannot be re-planted directly over the pipeline, indigenous ground cover will be planted to minimize invasion of noxious species.

Areas used for agricultural crops will be ripped and left bare for the landowner to cultivate and plant at the same time as adjacent farmland.

Temporary fencing will be erected and maintained in areas where livestock or wildlife will likely interfere with revegetation and erosion control. The temporary fencing will be kept in place until the revegetation activities are complete.

Landowners will be compensated during the ROW acquisition if any ornamental trees or shrubs need to be removed or disturbed.

**Wetlands and Riparian Areas**

The contractor will be required to prepare a pipeline construction plan for approval by the District before starting any pipeline construction that may affect wetlands and riparian vegetation adjacent to roadways. The plan will document methods to protect wetlands and riparian vegetation from construction impacts.

Direct and indirect impacts on wetlands will be avoided, unless there are no other practical alternatives (as defined in 40 CFR 230.3). Procedures to avoid impacts will include protecting wetlands with silt fencing during construction and avoiding quantity and quality impacts on surface water and groundwater resources that serve as a source of water for wetlands.

Where impacts on wetlands cannot be avoided, they will be minimized to the extent possible. Heavy equipment in wetland areas will be operated on temporary earth fills placed on geotextile mats (or other appropriate measures) to minimize soil disturbance. Construction barriers will be installed to prevent unnecessary damage to adjacent wetlands.

Materials excavated from the pipeline trench will be placed on the adjacent roadway or in other upland areas. No excavated material will be placed in any wetlands. Where not practical to avoid wetland impacts, wetland soils will be removed, segregated and stockpiled in upland areas. Wetland topsoil will be replaced in the top 6 to 12 inches of the pipeline trench, and the disturbed area will be graded to match previous contour elevations and revegetated with a mixture of adapted wetland plant species.

Pipelines will be installed using construction measures such as cutoff walls if a bedding material is used that could otherwise cause wetlands to be drained.

Power poles and electrical distribution line access roads will not be located or constructed in wetlands or riparian corridors.

**Aquatic Resources**

To the extent possible disturbance of stream channels or other drainage channels will be avoided. When necessary to work in channels it will be accomplished during low flow periods to the extent possible. When necessary to work in channels the resulting sediment and turbidity will be minimized.

To the extent feasible, heavy equipment use in streambeds and riparian areas during construction at stream crossings will be minimized.

Impacts on aquatic resources can be avoided and minimized by following hazardous materials procedures included under the health and safety SOPs, the restoration and erosion control SOPs, and wetlands SOPs.

**Wildlife and TES Resources**

The construction manager will be required to review the TES Section 7 information for TES locations before commencing work on any ULS feature. If the feature may potentially approach a recorded TES location or critical habitat, the appropriate agency will be contacted to perform a field survey prior to commencing construction in that area.

To the extent feasible, construction activities on or around important wildlife habitat (e.g., deer fawning areas) will be scheduled to avoid the periods of greatest use.

Impacts on wildlife resources can be avoided and minimized by following hazardous materials procedures included under the health and safety SOPs, the restoration and erosion control SOPs, and wetlands SOPs.

As a condition of employment, contractor personnel will not be allowed to have firearms in possession while on construction sites.

Trenches will be covered or backfilled at the completion of each day and no more than 500 feet of trench will be open at any one location.

If a threatened, endangered or sensitive species is encountered during any facet of construction or operation or if critical habitat cannot be protected, the District will immediately contact the U.S. Fish and Wildlife Service or Utah Division of Wildlife Resources to determine the appropriate action.

New overhead power transmission lines will be constructed to meet the *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996* (Edison Electric Institute, Washington, D.C.).

**APPENDIX C**

State of Utah

Department of
Natural Resources

Division of
Wildlife Resources

ROBERT L. MORGAN
*Executive Director*

KEVIN K. CONWAY
*Division Director*

OLENE S. WALKER
*Governor*

GAYLE F. McKEACHNIE
*Lieutenant Governor*

September 15, 2004

Mr. Henry Maddux
Field Supervisor
U.S. Fish and Wildlife Service
Utah Field Office
2369 West Orton Circle, Suite 50
West Valley City, Utah 84119

Subject: Fish and Wildlife Coordination Act Report (Report) for the Utah Lake Drainage Basin Water Delivery System Draft Environmental Impact Statement (DEIS)

Dear Mr. Maddux:

The Utah Division of Wildlife Resources has reviewed the subject DEIS and the associated Report and concur with the Fish and Wildlife Service's conclusions and recommendations.

Thank you for the opportunity to review and comment. If you have questions or require further coordination, please feel to contact Eric (Rick) Larson, CUP Coordinator, at 801-538-4822 at you convenience.

Sincerely,

Miles Moretti
Acting Director

MM/EWL

cc: SLO Administration
CRO Habitat
SLO Habitat - CUP files

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# Utah Lake Drainage Basin
# Water Delivery System
# Bonneville Unit, Central Utah Project

## Final
## Environmental Impact Statement

## *Appendix G*
## *Cultural Resources*
## *Memorandum of Agreement and Native American Consultation*

**Memorandum of Agreement among**
**The United States Department of Interior**
**The Utah Reclamation Mitigation and Conservation Commission**
**The Central Utah Water Conservancy District**
**and**
**The Utah State Historic Preservation Officer**
**regarding the**
**Utah Lake Drainage Basin Water Delivery System**

WHEREAS, the Department of the Interior (DOI) proposes to fund the Utah Lake Drainage Basin Water Delivery System (ULS) of the Bonneville Unit of the Central Utah Project under a cost-sharing agreement with the Central Utah Water Conservancy District (District), a political subdivision of the State of Utah, pursuant to Section 201 of the Central Utah Project Completion Act (Act) (Title III of Public Law 102-575, 106 Stat. 4605); and

WHEREAS, the District has been designated by federal legislation the responsibility for compliance with environmental laws pursuant to Section 205(b) of the Act; and

WHEREAS, the Utah Reclamation Mitigation and Conservation Commission (Commission) is a federal agency created in Section 301 of the Act to coordinate the implementation of mitigation and conservation projects as part of the Bonneville Unit of the Central Utah Project; and

WHEREAS, the Commission, DOI, and the District serve as joint lead agencies (JLA) for NEPA compliance for the ULS, and the District is designated as lead agency for purposes of compliance with the National Historic Preservation Act; and

WHEREAS, the JLA have determined that the ULS will have an effect on properties included in or eligible for inclusion in the National Register of Historic Places (NRHP); and

WHEREAS, the District has consulted with the Advisory Council on Historic Preservation (ACHP) and the ACHP has notified the District that they do not feel the need to enter into a Programatic Agreement nor this MOA for the ULS Project;

WHEREAS the District has also consulted with Utah State Historic Preservation Officer (SHPO) pursuant to 36 CFR part 800, the regulation implementing Section 106 of the National Historic Preservation Act (16 U.S.C. §470f) and Section 110(f) of the same act (16 U.S.C. §470h-2[f]) the JLA desire to enter into this MOA with the SHPO; and

WHEREAS, the Utah Department of Transportation (UDOT) will authorize use of state highway rights-of-way for the purposes of the ULS; and

WHEREAS, the District has consulted with UDOT and has invited them to execute this agreement; and

WHEREAS, the District will consult with the Shoshone-Bannock Tribes, the Skull Valley Band of Goshute Indians, the Northwestern Band of Shoshoni Tribe, the Southern Paiute Tribe and the Ute Indian Tribe and has invited them to concur in this agreement; and

WHEREAS, Attachment 1 of this agreement provides a description of the proposed alternatives for construction and operation that are being studied for the ULS as well as maps indicating surface ownership and the areas of potential effect on historic properties;

NOW THEREFORE, JLA and SHPO agree that the ULS component of the Bonneville Unit Central Utah Project shall be implemented according to the following stipulations in order to take into account the effects of the undertaking on historic properties.

**Stipulations**

**The District shall be sure that the following stipulations are carried out:**

I. Research for the ULS project was divided into four phases. Phase 1 involved compilation of background research of known sites and information within the proposed ULS project area in preparation for undertaking fieldwork. Phase 2 consisted of preparing an historic context. These two phases reflected the tasks identified for a Class I study. Phase 3 involved field inspection and recordation of all cultural resources within the project alternatives. Phase 4 involved preparation of technical report for the project. Class III inventories consist of a literature search and complete survey of a geographic area. These surveys or inventories are designed so that virtually all-cultural resources within that area are identified and recorded. The following is a summary of the survey results:

Identification and evaluation of historic properties.

A. Archaeological resources

1. Pedestrian survey meeting the *Secretary of the Interior's (SOI) Standards and Guidelines for Identification* (48 FR 44720-23) has been completed for all areas of proposed ground disturbance within the area of potential effect (APE) for the undertaking (see *Utah Lake System Environmental Impact Statement, Draft Cultural Resources Technical Report*, 2003, Central Utah Water Conservancy District).
2. A total of seven archaeological sites were recorded as a result of this survey or have been previously recorded; five historic archaeological sites and two pre-contact sites.
   Site **42Ut649** consists of the remains of a historic US Forest Service Ranger Station foundation and features known as the First Water Cabin. This site appeared to be older than fifty years of age and retained its integrity of location, design, setting, materials, feeling, and association. Further, this site and features could "yield, information important" in understanding the occupation and function of this station during the early period of the US Forest Service. Therefore, this site and its associated features were recommended eligible for the NRHP, under Criteria A and D. Sites **42Wa364** and **42Wa365** both consist of pre-contact lithic scatters. Due to the nature of the artifact assemblages observed and the good potential for cultural depth at both sites, they were recommended eligible to the NRHP under criterion D.
   Site **42Wa362** is a large historic trash scatter with two concentrations. This site is surficial, cannot be associated with a known occupation or other site and is not likely to yield information important to the understanding of historic occupation or settlement patterns in northern Utah,. As such, this site was recommended NOT ELIGIBLE to the NRHP.

consists of a historic trash scatter and three pre-contact flakes. The trash scatter cannot be directly associated with any specific person, event, site or feature, therefore
lacks integrity. Also, the lithics found are not diagnostic. Both components lack depth potential and are not likely to yield any further information important to the history or prehistory of the area. Therefore, this site is recommended NOT ELIGIBLE to the NRHP.
Site **42UT1400** is located in Rays Valley, north of S.R. 6 between Sheep Creek and Sheep Creek Road, is an historic trash scatter. Because of this site's association with the recommended eligible Sheep Creek Road, site 42UT1400 is recommended eligible under criterion D. It has the potential to yield information important in history about the Sheep Creek Road.
Site **42Ut362** consists of the concrete foundations and other remains of the former Castilla Warm Springs Spa which dates from the 1890s up to the 1930s. This archaeological site maintains its integrity of location, setting, materials, feeling and association, and was recommended eligible for the NRHP, under criteria A and D.

3. Summary of the views of the consulted tribes about the three precontact sites will be included in Cultural Resource Technical Report and in the material which the Utah SHPO is consulted on.
4. Once construction begins, should ground disturbance become necessary in any area that was not subject to previous archaeological survey, the District shall ensure:
   i. that the new disturbance area is inventoried in a manner consistent with the SOI standards and guidelines
   ii. that any subsurface testing needed to evaluate the NRHP eligibility of any discovered properties is carried out
   iii. that the resultant information is submitted to SHPO in a form acceptable for inclusion in the Intermountain Antiquities Computer System database
   iv. that the consulting tribes have an opportunity to express their views about any sites recorded
   v. that consultations about eligibility are completed pursuant to 36 CFR 800.4(c)
   vi. that effects to any such sites are determined pursuant to 36 CFR 800.5 and treated in a manner consistent with stipulation III(A) of this agreement.

B. Historic buildings and structures
1. Reconnaissance level inventory of pre-1954 buildings and structures within the APE has been completed.
2. A total of 227 building properties and 29 structures were recorded at a level sufficient to evaluate the eligibility of most to the NRHP under criteria C and D and a few under criterion A of 36 CFR 60.4. Of the 255 historic properties recorded, a total of 204 were recommended eligible to the NRHP under criterion A, C, D or a combination of the three.
3. Once the final construction configuration for this undertaking has been selected, the District shall ensure:
   vii. that all pre-1954 buildings and structures within the APE for that alternative that have the potential to be effected, should be additionally evaluated to the NRHP under criteria A and B of 36 CFR 60.4 and for the effect of the undertaking on those characteristics that qualify the property for NRHP eligibility
   viii. that the resultant information is submitted to SHPO in a form acceptable for inclusion in the Historic Site Information Database

ix. that consultations about eligibility are completed pursuant to 36 CFR 800.4(c).

C. Traditional cultural properties

Consultations will be done concerning identification of traditional cultural properties and cultural and religious significance attributed by the tribes to the already identified archaeological resources. Stipulations about these issues and about eligibility of any identified properties to be added.

D. If, at any point in the process set forth in this agreement, the District and SHPO are unable to reach a consensus concerning the NRHP eligibility of an identified property, the District shall seek a formal determination of eligibility from the Keeper of the National Register of Historic Places in accordance with 36 CFR Part 63.

II. Effect on historic properties

A. Archaeological resources

1. To date, the District has determined that construction on any of the alternatives of the ULS will have an adverse effect on only one archaeological site, site 42Ut362, Castilla Warm Springs Spa, a historic site on the Spanish Fork Canyon pipeline. All pre-contact and other historic archaeological sites can be avoided and so actions within the vicinity of those sites are considered no effect.
2. Once the proposed action has been selected, if the site 42Ut362 will be affected, this stipulation will indicate whether this site will be impacted.

B. Historic buildings and structures

1. Although evaluation of the NRHP eligibility of pre-1954 structures and buildings is incomplete, as noted in stipulation I(B)(4), the District has found that, given the nature of the anticipated effects, it is unlikely that the ULS will have an adverse effect on most eligible historic buildings or structures.
2. Once the alternative has been selected, if any historic structure or building within that alternative will be affected, the District shall initiate consultation with SHPO about the nature and resolution of those effects pursuant to 36 CFR 800.5 and 800.6.

C. Traditional cultural properties

If traditional cultural properties other than archeological sites are identified, a discussion of the affects will be presented.

III. Resolution of adverse effects on historic properties

A. Archaeological resources

1. The signatories agree that scientific data recovery is the appropriate mitigation measure for the adversely affected archaeological sites.
2. The District shall ensure that:
   a. a treatment plan for these sites is developed.
   b. the plan is consistent with the principles in Part I and the recommendations in Part II of the ACHP's *Treatment of Archaeological Properties: A Handbook* and the *SOI Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716-42)

c. any tribal views on eligibility and appropriate mitigation are taken into account in developing the treatment plan

3. The treatment plan will include, but is not limited to:
   a. Research questions to be addressed by the data recovery effort
   b. Discussion of the data needed to address these questions, indicating the sites and the portions of sites to be investigated and the methods to be used.
   c. A plan for treatment of any archaeological remains discovered during construction monitoring and open-trench inspection (see stipulation IV), including process and timeframes for any necessary consultations
   d. A schedule for reporting results of the data recovery and monitoring
   e. A curation agreement for collected cultural materials
   f. Identification of appropriate local libraries and other venues for distribution information about the data recovery program results.
4. The District shall provide copies of a draft treatment plan to the signatories to this agreement and the consulting tribes.
5. All parties shall have 30 days to review the draft plan and provide comments.
6. The District shall ensure that any comments received within the review period are considered, and to the extent feasible, incorporated into the final treatment plan, which will be provided to all signatories and consulting tribes.
7. Any disputes about the treatment plan shall be resolved according to stipulation VI of this agreement.
8. The District shall ensure that results of the data recovery and monitoring efforts are reported in a manner consistent with contemporary professional standards and with the DOI *Format Standards for Final Reports of Data Recovery Programs* (42 FR 5377-79).
9. The District shall provide copies of a draft data recovery and monitoring report to the signatories to this agreement and the consulting tribes.
10. All parties shall have 30 days to review the draft report and provide comments.
11. The District shall ensure that any comments received within the review period are considered, and to the extent feasible, incorporated into the final report.
12. Any disputes about the data recovery and monitoring report shall be resolved according to stipulation VI of this agreement.
13. The District shall provide copies of the final report to all signatories and consulting tribes, as well as to local libraries and other venues identified in the data recovery plan.
14. The District shall ensure that collected cultural materials are stabilized, labeled, cataloged and curated by the Utah Museum of Natural History or other authorized Utah curation facility per the treatment plan for archaeological resources. Disposition of cultural materials from private lands will be determined by the landowner after analyses are completed. The District will encourage private owners to donate these materials and will provide for curation if the landowner chooses to do so.

B. Traditional Cultural Properties
If no traditional cultural properties other than archaeological sites are identified or if such properties are identified but will not be affected, this stipulation does not apply.

IV. Procedures for Ensuring Protection of Cultural Resources
The District has prepared a plan for monitoring, mitigation and a Discovery Plan in the event of discovery of previously unknown historic properties. This "Monitoring, Mitigation, and Discovery Plan" is attached to this agreement as Appendix B. Also, the District has developed Standard Operating Procedures for construction companies and

employees which will be in effect during the construction phase of the project. These procedures, entitled "Standard Operating Procedures for Cultural Resources Survey Construction" is attached to this agreement as Appendix C.

V. Treatment of Human Remains

In the unlikely event that human remains are encountered in the course of archaeological data recovery or construction, the District shall ensure that the remains and any grave-associated artifacts are treated in a manner consistent with applicable federal and state laws and with the ACHP's *Policy Statement Regarding Treatment of Human Remains and Grave Goods*.

VI. Dispute Resolution

A. Should any party to this agreement object in writing to the District regarding any action carried out or proposed with respect to the undertaking or implementation of this agreement, the District shall consult with the objecting party to resolve the objection.

B. If after initiating such consultation the District determines that the objection cannot be resolved through consultation, the District shall forward all documentation relevant to the objection and a proposed response to the objection to the ACHP.

C. The District shall request that, within 30 days after receipt of all pertinent documentation, the ACHP shall exercise one of the following options:

1. Advise the District that the Council concurs in the agency's proposed response to the objection, whereupon the District will respond to the objection accordingly;
2. Provide recommendations, which the District shall take into account in reaching a final decision regarding its response to the objection; or
3. Notify the District and DOI that the objection will be referred for comment pursuant to 36 CFR 800.7(a)(4), and proceed to refer the objection and comment. The District and DOI shall take the resulting comment into account in accordance with 36 CFR 800.7(c)(4) and Section 110(l) of NHPA.

D. Should the Council not exercise one of the above options within 30 days after receipt of all pertinent documentation, the agency may assume the ACHP's concurrence in its proposed response to the objection.

1. The District shall take into account any ACHP recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; the District's responsibility to carry out all actions under this agreement that are not the subjects of the objection shall remain unchanged

VII. Failure to Carry out the Terms of this Agreement

A. Should the District find itself unable to carry out the terms of this agreement, DOI shall request ACHP comments per 36 CFR 800.7.

B. The District shall take no action that could adversely affect historic properties until ACHP comment has been received and DOI has responded to the ACHP comment as required by 36 CFR 800.7(c)(4).

VIII. Amendment and Termination

A. Any party to this agreement may request that it be amended, whereupon the parties will consult to reach a consensus on the proposed amendment. Where no consensus can be reached, the agreement will not be amended.

B. Any signatory to this agreement may terminate it by providing thirty (30) days notice to the other parties, provided that the signatories and concurring parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination.

C. In the event of termination, the District shall comply with 36 CFR Part 800 with regard to all remaining actions under this agreement.

**Conclusion and Signatures**

Execution and implementation of this agreement evidences that the Department of the Interior, the Utah Reclamation Mitigation and Conservation Commission, and the Central Utah Water Conservancy District have satisfied their responsibilities under Section 106 of the National Historic Preservation Act.

**Department of the Interior**

By: _____ Date: 4/29/04

**Utah Reclamation Mitigation and Conservation Commission**

By: _____ Date: 4/29/04

**Central Utah Water Conservancy District**

By: _____ Date: 4-27-04

**Utah State Historic Preservation Officer**

By: _____ Date: 8/23/04

**Concurring:**

**Utah Department of Transportation, Region Three Director**

By: _____ Date: 5/26/04

**Ute Indian Tribe**

By: _____ Date: _____

**Bannock-Shoshone Tribes**

By: _____ Date: _____

**Skull Valley Band of Goshute Indians**

By: _____ Date: _____

**Northwestern Band of Shoshoni Tribe**

By: _____ Date: _____

**Paiute Indian Tribe of Utah**

By: _____ Date: _____

## APPENDIX A

**Description of ULS Proposed Construction and Maps of Project Area and Facilities by Alternative***

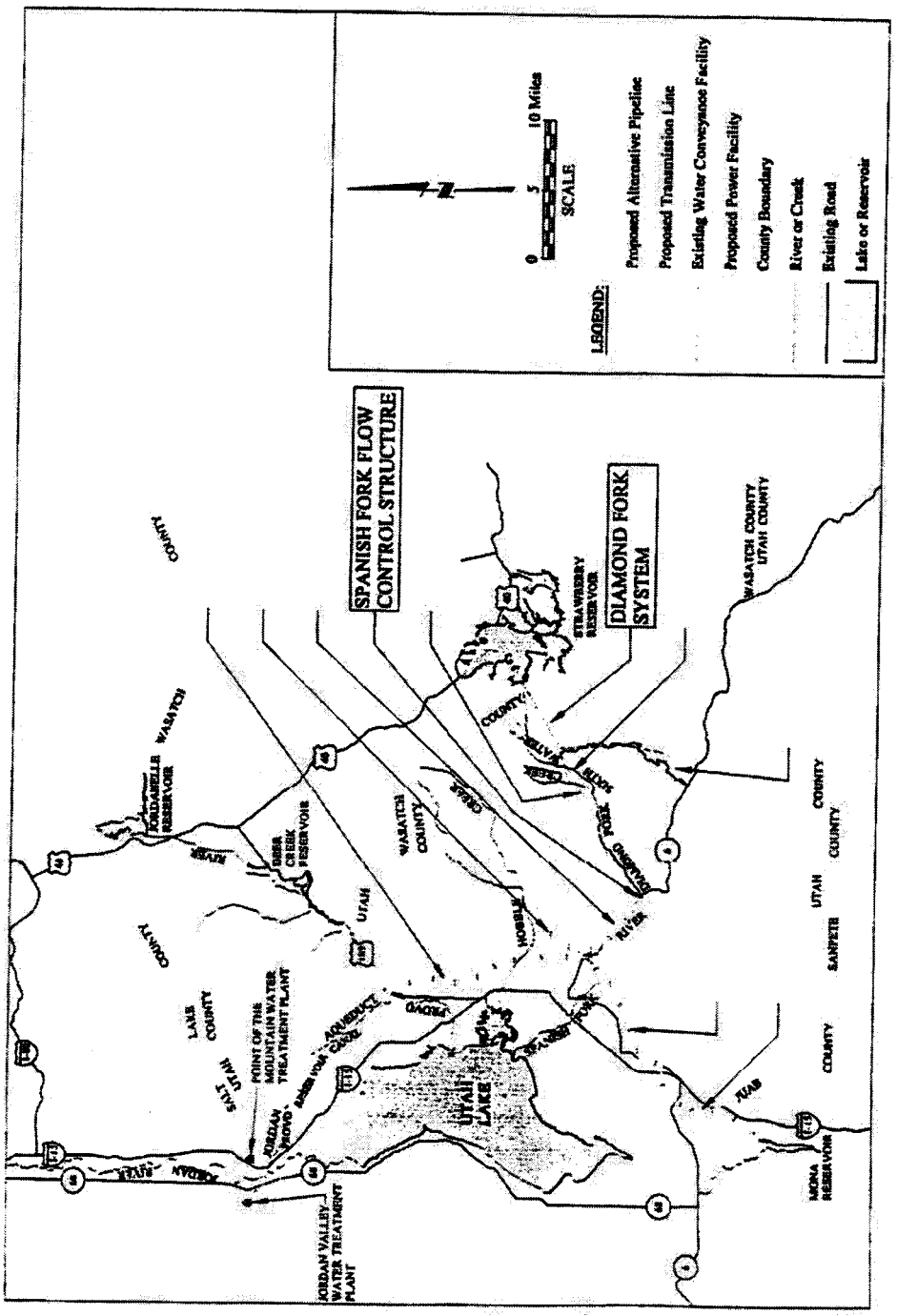
### 1.4 Spanish Fork Canyon–Provo Reservoir Canal Alternative (Preferred Alternative)

#### 1.4.1 Introduction

The Spanish Fork Canyon–Provo Reservoir Canal Alternative has an average transbasin diversion of 101,900 acre-feet, which consists of a delivery of: 30,000 acre-feet of M&I water to southern Utah County and 30,000 acre-feet of M&I water to Salt Lake County water treatment plants; 1,590 acre-feet of M&I water already contracted to southern Utah County cities, and 40,310 acre-feet of M&I water to Utah Lake for exchange to Jordanelle Reservoir. The 30,000 acre-feet (less the water returned to DOI under the Section 207 Program) of M&I water utilized in southern Utah County would be used in the cities' secondary water systems. If it were proposed to be used as a potable supply in the future, additional NEPA compliance would be required. This alternative would involve construction of five new pipelines for delivery of water and 2 new hydropower plants and associated transmission lines.

#### 1.4.2 Spanish Fork Canyon–Provo Reservoir Canal Alternative Features

The Spanish Fork Canyon–Provo Reservoir Canal Alternative would include the following features (see Map 1-3 or Map A-1 in map pocket): 1) Sixth Water Power Facility and Transmission Line, 2) Upper Diamond Fork Power Facility and Underground Transmission Cable, 3) Spanish Fork Canyon Pipeline, 4) Spanish Fork–Santaquin Pipeline, 5) Santaquin–Mona Reservoir Pipeline, 6) Mapleton–Springville Lateral Pipeline, and 7) Spanish Fork–Provo Reservoir Canal Pipeline. These features would deliver ULS M&I secondary water to southern Utah County cities, deliver water to Hobble Creek to provide June sucker spawning flows, and supplemental flow during other times of the year, deliver water for supplemental flow in the lower Provo River, deliver M&I raw water to the Provo Reservoir Canal and the Jordan Aqueduct for conveyance to water treatment plants in Salt Lake County, and provide water to generate electric power at 2 hydropower plants. The Spanish Fork Canyon Pipeline and Spanish Fork–Santaquin Pipeline would convey up to 10,200 acre-feet of SVP water shares held by SUVMWA to member cities in southern Utah County through the new ULS pipelines, on a space-available basis.




**Map 1-3**

**Features of the Spanish Fork Canyon - Provo Reservoir Canal Alternative (Preferred Alternative)**

## 1.5 Bonneville Unit Water Alternative

### 1.5.1 Introduction

The Bonneville Unit Water Alternative would have an average transbasin diversion of 101,900 acre-feet consisting of: 1,590 acre-feet of M&I water already contracted to the southern Utah County cities; 15,800 acre-feet of M&I water to southern Utah County to be used in secondary water systems; and 84,510 acre-feet of M&I water delivered to Utah Lake for exchange to Jordanelle Reservoir. It would: conserve water in a Mapleton-Springville Lateral Pipeline; conserve water in the Provo River basin and deliver it along with acquired water to assist June sucker spawning and rearing; convey water to support in-stream flows in Hobble Creek to assist recovery of the June sucker; and develop hydropower. It would involve construction of three new pipelines and two new hydropower plants with associated transmission lines. Under this alternative, DOI would acquire up to 15,000 acre-feet of the District's secondary water rights in Utah Lake to provide a firm annual yield of 15,800 acre-feet of M&I water.

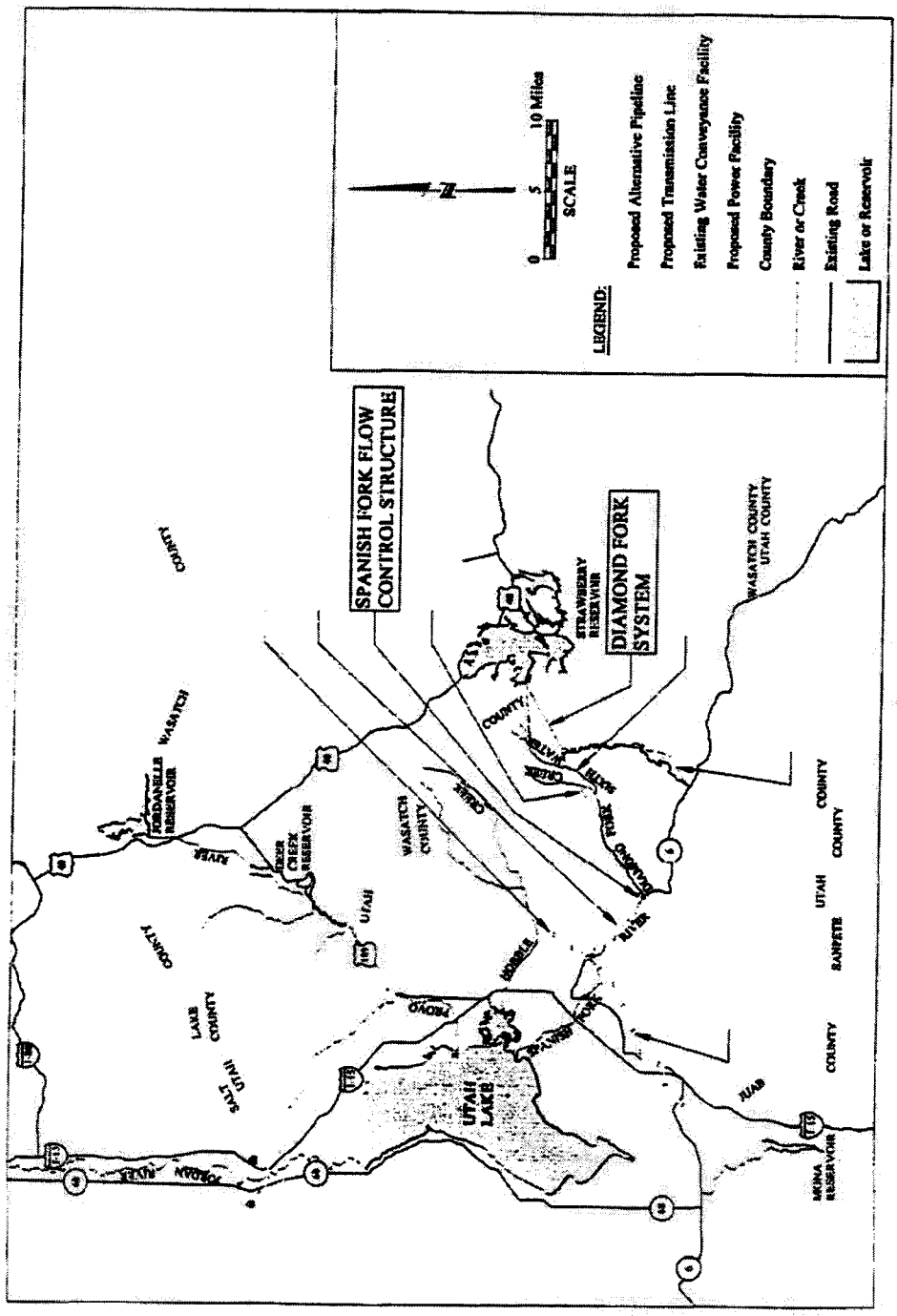
### 1.5.2 Bonneville Unit Water Alternative Features

The Bonneville Unit Water Alternative would include the following features (see Map 1-5 or Map A-2), which would be the same as described under the Preferred Alternative:

- Sixth Water Power Facility and Transmission Line (see Section 1.4.2.1)
- Upper Diamond Fork Power Facility and Underground Transmission Line (see Section 1.4.2.2)
- Spanish Fork Canyon Pipeline (see Section 1.4.2.3, except as noted in Table 1-18)
- Spanish Fork–Santaquin Pipeline (see Section 1.4.2.4, except as noted in Table 1-18; the pipeline would be constructed as a combined ULS/Section 207 feature)
- Mapleton–Springville Lateral Pipeline (see Section 1.4.2.6)

These features would deliver ULS M&I secondary water to southern Utah County cities, deliver water to Hobble Creek to provide June sucker flows, and generate and deliver electric power from 2 hydropower plants. Up to 10,200 acre-feet of SVP water shares held by SUVMWA would be conveyed to member cities in southern Utah County through the Spanish Fork Canyon Pipeline and Spanish Fork-Santaquin Pipeline.

Table 1-17 shows the feature name and details of each power feature. Table 1-18 shows the feature name and details of each pipeline feature. Map A-2 shows the location of these features and detailed insets of some features.




**Map 1-5**
**Features of the Bonneville Unit Water Alternative**

## APPENDIX B

### Monitoring, Mitigation, and Discovery for Utah Lake System Project

**Monitoring**

WHEREAS, the project passes through some areas of cultural sensitivity, it will be necessary to implement a construction monitoring program. It is anticipated that this program will consist of a combination of construction worker training, excavation monitoring and trench inspection. This program will specifically require the training of field supervisors and equipment operators in the recognition of cultural resource material and features. It will also involve the monitoring of excavation by qualified archaeologists. In addition, trench inspection will be carried out in culturally sensitive areas by qualified archaeologists.

**Mitigation**

WHEREAS, the proposed project will have an impact upon known cultural resources, mitigation of these resources will be necessary. While project construction impacts located within the road prism where the project pipeline and power lines follow established roads and highways, it is anticipated that there will be no need for mitigation measures. However, should the construction corridor fall outside the road prism, measures may be necessary to mitigate the impacts to eligible historic properties. These measures for historic properties/sites could include:

1. Additional historical research and photographs
2. Recordation and architectural descriptions
3. Historic American Engineering Record or Historic American Buildings Survey documentation
4. Excavation

Measures for archaeological properties/sites could include:

1. Test excavation
2. Full excavation

**Discovery**

In accordance with 36 CFR 800.13(a) and (b) (1), the Central Utah Water Conservancy District (District) is providing for the protection, evaluation, and treatment of any historic property discovered prior to or during construction. Should any archaeological or historical site or object be discovered within the ULS Project Area, which has not been documented and evaluated as part of the current project implementation or subsequent professional cultural resources evaluations, District shall immediately be verbally notified of the nature and exact locations of the findings. If the discovery resulted from construction or other ground disturbing activities, these activities will immediately cease until District, in consultation with the Utah State Historic Preservation Officer (USHPO), have made an evaluation of the significance of said site or object and have determined a course of treatment. The Contractor,

Engineer or other person responsible for the discovery shall not damage the discovered objects and shall provide written confirmation of the discovery to the District within two (2) calendar days.

The District will inform the Contractor or Engineer when the restriction is terminated, with written confirmation following within two (2) calendar days. If a changed condition is approved, it will be controlled in accordance with Subsection 104.2: Differing Site Conditions.

Should a discovery occur, the District will consult with the USHPO in accordance with 36 CFR 800.14(b)(3) toward developing and implementing an appropriate treatment plan prior to allowing further ground disturbance.

## APPENDIX C

### Standard Operating Procedures For Cultural Resources During Construction

During the environmental review process for the Utah Lake System project, a number of cultural resources and historical sites were identified within the proposed area of potential effects (APE) and were evaluated for their eligibility to the National Register of Historic Places. Those properties that could be mitigated are detailed in a separate Research Design and report that document the procedures followed during the mitigation process, which include testing and/or excavation, as necessary. However, several properties were identified during the environmental process that could be avoided during construction by flagging and/or monitoring. In addition, not all construction staging areas, access roads, material source sites, and other construction related sites were covered during the environmental review process. The following are the procedures and guidelines for the CONTRACTOR to follow concerning the management of these cultural resources and historic properties, as well as undiscovered resources, prior to and during the construction of the proposed pipeline.

After the award of contract and prior to the start of construction, the CONTRACTOR will be responsible to have all staging areas, material resource areas, access roads, and any other associated construction sites not covered in the environmental process surveyed for cultural resources. These new disturbance areas are to be inventoried in a manner consistent with the Standard Operating Instruction standards and guidelines for this project. The results of the surveys must be submitted to the Central Utah Water Conservancy District (District) PROJECT MANAGER, who will be responsible for submittal to the Utah State Historic Preservation Office (USHPO) and the appropriate Native American Tribes for review and concurrence.

Prior to the commencement of construction, the CONTRACTOR, his PROJECT MANAGER, FIELD SUPERVISORS, and HEAVY EQUIPMENT OPERATORS, as well as the District PROJECT MANAGER will be required to attend a training and orientation class on the laws and regulations regarding the treatment of cultural and historical resource sites, procedures to follow when a human burial, or cultural material is encountered, and procedures to follow to avoid a flagged site, along with the treatment and avoidance of Traditional Cultural Properties. This class will be conducted by a qualified professional archaeologist.

**Monitoring**

Once construction begins, the potential to adversely affect those historic properties located with the APE that were determined eligible for National Register of Historic Places (NRHP) during the environmental review process and that were also determined could be avoided remains a possibility. In order to avoid these sites, each cultural property will be identified by staking the area with lath and easily visible flagging. The stakes and flagging will at minimum be placed in each of the four cardinal directions and at a distance five feet from the outer boundary of the site. In addition, an archaeologist will be on site to monitor all construction activities in and around each flagged site. Once construction activities conclude in the area, the stakes and flagging will be removed and no subsequent disturbance is to occur in the area.

Since the project passes through some areas of cultural sensitivity, it will be necessary to implement a construction monitoring program. It is anticipated that this program will consist of a combination of construction worker training, as outlined above, excavation monitoring and trench inspection. This program will specifically require the training of field supervisors and equipment operators in the recognition of cultural resource material and features. It will also involve the monitoring of excavation by qualified professional archaeologists. In addition, trench inspection will be carried out in culturally sensitive areas by qualified professional archaeologists.

**Traditional Cultural Properties**

Consultation is ongoing concerning identification of traditional cultural properties and cultural and religious significance attributed by the tribes to the already identified archaeological resources. Since these areas are considered sacred or culturally sensitive by the Native Americans, information on their location can be restrictive, which will require close cooperation between the CONTRACTOR, District, and the PROJECT CONSULTING ARCHAEOLOGIST. These areas may have to be identified in broad terms and closely monitored by qualified professional archaeologists.

**Discovery**

In accordance with 36 CFR 800.11(a) and (b) (1), the District has provided for the protection, evaluation, and treatment of any historic property discovered prior to or during construction. This document outlines the procedures and instructions to the CONTRACTOR for the protection of any archaeological and historical resources discovered in the course of construction. Specifically, upon discovery, construction operations shall be immediately stopped in the vicinity and the District PROJECT MANAGER shall be verbally notified of the nature and exact locations of the findings. The CONTRACTOR shall not damage the discovered objects and shall provide written confirmation of the discovery to the District PROJECT MANAGER within two (2) calendar days. The District PROJECT MANAGER will inform the CONTRACTOR when the restriction is terminated, with written confirmation following within two (2) calendar days.

Should a discovery occur, the District will consult with the USHPO in accordance with 36 CFR 800.11(b)(2)(ii) toward developing and implementing as appropriate research design or specific treatment plan prior to resuming construction.

**Discovery of Human Remains**

In addition, the potential for the discovery of subsurface resources is also possible, including human remains, which are protected under federal legislation, such as the Native American Graves Protection and Repatriation Act (NAGPRA) and state laws protecting the discovery of human remains. In the unlikely event that human remains are encountered in the course of construction, all work in the area must cease and the DISTRICT PROJECT MANAGER be contacted immediately. The District PROJECT MANAGER will ensure that the remains and any grave-associated artifacts are treated in a manner consistent with applicable federal and state laws and with the ACHP's *Policy Statement Regarding Treatment of Human Remains and Grave Goods*.

# United States Department of the Interior

OFFICE OF THE SECRETARY
Program Director
CUP Completion Act Office
302 East 1860 South
Provo, Utah 84606-7317

IN REPLY REFER TO:
PRO-772
ENV-6.00

NOV 04 2003

Honorable Lora E. Tom
Chairwoman
Paiute Indian Tribe of Utah
440 North Paiute Drive
Cedar City, UT 84720

Subject: Indian Trust Assets, Utah Lake Systems, Central Utah Project Completion Act, Section 202(a)(1)

Dear Chairwoman:

This letter is in regard to the Utah Lake Drainage Basin Water Delivery System (ULS) being proposed by the Central Utah Water Conservancy District, the Utah Reclamation Mitigation and Conservation Commission, and the Department of the Interior (DOI). Enclosed is a map of the proposed project area which includes separate smaller maps of each alternative to be considered.

In compliance with Federal responsibilities to honor its fiduciary relationship concerning trust responsibilities to Indian tribes through Federal statutes, agreements, executive orders, and treaty obligations, the DOI is initiating this consultation with you concerning Indian Trust Assets (ITA) which may be affected by the proposed ULS.

As you can see from the map, there are no Ute Tribal lands involved within the proposed ULS project area. There will be no affect from the construction or implementation of the proposed ULS on Ute Tribal lands, minerals, or water rights. This consultation is inquiring about any off-reservation hunting, fishing, medicinal plant, or other natural resource gathering areas.

We appreciate your time and consideration of the proposed ULS and our inquiry in regard to ITAs. We would like to meet with you or your representative to further explain

the project and answer any concerns or questions you may have. Please call Mr. Reed Murray at 801-379-1237 to arrange a meeting at your convenience.

Sincerely,

RONALD JOHNSTON

Ronald Johnston
Program Director

Enclosure

cc: Mr. Harold Sersland
Central Utah Water Conservancy District
355 West University Parkway
Orem, UT 84058

Mr. Michael C. Weland
Executive Director
Utah Reclamation Mitigation and
Conservation Commission
102 West 500 South, Suite 315
Salt Lake City, UT 84101

Mr. Chester Mills
Superintendent
Bureau of Indian Affairs
P.O. Box 130
Fort Duchesne, UT 84026
(each w/o encl)

bc: Manager, Bonneville Unit Pilot Program, Provo, UT, Attention: BU-120
Area Manager, Provo, UT, Attention: PRO-772
(each w/o encl)

# United States Department of the Interior

OFFICE OF THE SECRETARY
Program Director
CUP Completion Act Office
302 East 1860 South
Provo, Utah 84606-7317

IN REPLY REFER TO:
CA-1200
ENV-6.00

NOV 04 2003

Honorable Maxine Natchees
Chairwoman
Uintah and Ouray Ute Indian Tribe
P.O. Box 190
Fort Duchesne, UT 84026

Subject: Indian Trust Assets, Utah Lake Drainage Basin Water Delivery System, Central Utah Project Completion Act, Section 202(a)(1)

Dear Chairwoman:

This letter is in regard to the Utah Lake Drainage Basin Water Delivery System (ULS) being proposed by the Central Utah Water Conservancy District, the Utah Reclamation Mitigation and Conservation Commission, and the Department of the Interior (DOI). Enclosed is a map of the proposed project area which includes separate smaller maps of each alternative to be considered.

In compliance with Federal responsibilities to honor its fiduciary relationship concerning trust responsibilities to Indian tribes through Federal statutes, agreements, executive orders, and treaty obligations, the DOI is initiating this consultation with you concerning Indian Trust Assets (ITA) which may be affected by the proposed ULS.

As you can see from the enclosed project alternative maps, there are no Ute Tribal lands involved within the proposed ULS project area. There will be no affect from the construction or implementation of the proposed ULS on Ute Tribal lands, minerals, or water rights. This consultation is inquiring about any off-reservation hunting, fishing, medicinal plant, or other natural resource gathering areas.

We appreciate your time and consideration of the proposed ULS and our inquiry in regard to ITAs. We would like to meet with you or your representative to further explain

the project and answer any concerns or questions you may have. Please call Reed Murray at 801-379-1237 to arrange a meeting at your convenience.

Sincerely,

RONALD JOHNSTON

Ronald Johnston
Program Director

Enclosures

cc: Mr. Harold Sersland
Central Utah Water Conservancy District
355 West University Parkway
Orem, UT 84058

Mr. Michael C. Weland
Executive Director, Utah Reclamation
Mitigation and Conservation Commission
102 West 500 South, Suite 315
Salt Lake City, UT 84101
(each w/o encls)

Mr. Chester Mills
Superintendent
Bureau of Indian Affairs
P.O. Box 130
Fort Duchesne, UT 84026
(w/encls)

# United States Department of the Interior

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Program Director
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302 East 1860 South
Provo, Utah 84606-7317

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CA-1200
ENV-6.00

NOV 04 2003

Honorable Gwen Davis
Chairwoman
Northwestern Band of the Shoshone Tribe
427 North Main Street, Suite 101
Pocatello, ID 83204-3016

Subject: Indian Trust Assets, Utah Lake Drainage Basin Water Delivery System, Central Utah Project Completion Act, Section 202(a)(1)

Dear Chairwoman:

This letter is in regard to the Utah Lake Drainage Basin Water Delivery System (ULS) being proposed by the Central Utah Water Conservancy District, the Utah Reclamation Mitigation and Conservation Commission, and the Department of the Interior (DOI). Enclosed is a map of the proposed project area which includes separate smaller maps of each alternative to be considered.

In compliance with Federal responsibilities to honor its fiduciary relationship concerning trust responsibilities to Indian tribes through Federal statutes, agreements, executive orders, and treaty obligations, the DOI is initiating this consultation with you concerning Indian Trust Assets (ITA) which may be affected by the proposed ULS.

As you can see from the enclosed project alternative maps, there are no Northwestern Band Shoshone Tribal lands involved within the proposed ULS project area. There will be no affect from the construction or implementation of the proposed ULS on Northwestern Band Shoshone Tribal lands, minerals, or water rights. This consultation is inquiring about any off-reservation hunting, fishing, medicinal plant, or other natural resource gathering areas.

We appreciate your time and consideration of the proposed ULS and our inquiry in regard to ITAs. We would like to meet with you or your representative to further explain

the project and answer any concerns or questions you may have. Please call Reed Murray at 801-379-1237 to arrange a meeting at your convenience.

Sincerely,

RONALD JOHNSTON

Ronald Johnston
Program Director

Enclosures

cc: Mr. Harold Sersland
Central Utah Water Conservancy District
355 West University Parkway
Orem, UT 84058

Mr. Michael C. Weland
Executive Director
Utah Reclamation Mitigation
and Conservation Commission
102 West 500 South, Suite 315
Salt Lake City, UT 84101
(each w/o encls)

Mr. Eric LaPoint
Superintendent
Bureau of Indian Affairs
P.O. Box 220
Fort Hall, ID 83203
(w/encls)

# United States Department of the Interior

OFFICE OF THE SECRETARY
Program Director
CUP Completion Act Office
302 East 1860 South
Provo, Utah 84606-7317

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ENV-6.00

NOV 04 2003

Honorable Fredrick Auck
Chairman
Shoshone-Bannock Tribes
P.O. Box 306
Fort Hall, ID 83203

Subject: Indian Trust Assets, Utah Lake Drainage Basin Water Delivery System, Central Utah Project Completion Act, Section 202(a)(1)

Dear Chairman:

This letter is in regard to the Utah Lake Drainage Basin Water Delivery System (ULS) being proposed by the Central Utah Water Conservancy District, the Utah Reclamation Mitigation and Conservation Commission, and the Department of the Interior (DOI). Enclosed is a map of the proposed project area which includes separate smaller maps of each alternative to be considered.

In compliance with Federal responsibilities to honor its fiduciary relationship concerning trust responsibilities to Indian tribes through Federal statutes, agreements, executive orders, and treaty obligations, the DOI is initiating this consultation with you concerning Indian Trust Assets (ITA) which may be affected by the proposed ULS.

As you can see from the enclosed project alternative maps, there are no Shoshone-Bannock Tribal lands involved within the proposed ULS project area. There will be no affect from the construction or implementation of the proposed ULS on Shoshone-Bannock lands, minerals, or water rights. This consultation is inquiring about any off-reservation hunting, fishing, medicinal plant, or other natural resource gathering areas.

We appreciate your time and consideration of the proposed ULS and our inquiry in regard to ITAs. We would like to meet with you or your representative to further explain

the project and answer any concerns or questions you may have. Please call Reed Murray at 801-379-1237 to arrange a meeting at your convenience.

Sincerely,

RONALD JOHNSTON

Ronald Johnston
Program Director

Enclosures

cc: ✓Mr. Harold Sersland
Central Utah Water Conservancy District
355 West University Parkway
Orem, UT 84058

Mr. Michael C. Weland
Executive Director
Utah Reclamation Mitigation
and Conservation Commission
102 West 500 South, Suite 315
Salt Lake City, UT 84101

Mr. Eric LaPoint
Superintendent
Bureau of Indian Affairs
P.O. Box 220
Fort Hall, ID 83203
(each w/o encls)

# United States Department of the Interior

OFFICE OF THE SECRETARY
Program Director
CUP Completion Act Office
302 East 1860 South
Provo, Utah 84606-7317

IN REPLY REFER TO:
CA-1200
ENV-6.00

NOV 04 2003

Honorable Leon D. Bear
Chairman
Skull Valley Band of Goshute Indians
2480 South Main Street, Suite 110
Salt Lake City, UT 84115

Subject: Indian Trust Assets, Utah Lake Drainage Basin Water Delivery System, Central Utah Project Completion Act, Section 202(a)(1)

Dear Chairman:

This letter is in regard to the Utah Lake Drainage Basin Water Delivery System (ULS) being proposed by the Central Utah Water Conservancy District, the Utah Reclamation Mitigation and Conservation Commission, and the Department of the Interior (DOI). Enclosed is a map of the proposed project area which includes separate smaller maps of each alternative to be considered.

In compliance with Federal responsibilities to honor its fiduciary relationship concerning trust responsibilities to Indian tribes through Federal statutes, agreements, executive orders, and treaty obligations, the DOI is initiating this consultation with you concerning Indian Trust Assets (ITA) which may be affected by the proposed ULS.

As you can see from the enclosed project alternative maps, there are no Skull Valley Goshute Tribal lands involved within the proposed ULS project area. There will be no affect from the construction or implementation of the proposed ULS on Skull Valley Goshute reservation lands, minerals, or water rights. This consultation is inquiring about any off-reservation hunting, fishing, medicinal plant, or other natural resource gathering areas.

We appreciate your time and consideration of the proposed ULS and our inquiry in regard to ITAs. We would like to meet with you or your representative to further explain

the project and answer any concerns or questions you may have. Please call Reed Murray at 801-379-1237 to arrange a meeting at your convenience.

Sincerely,

RONALD JOHNSTON

Ronald Johnston
Program Director

Enclosures

cc: Mr. Harold Sersland
Central Utah Water Conservancy District
355 West University Parkway
Orem, UT 84058

Mr. Michael C. Weland
Executive Director, Utah Reclamation
Mitigation and Conservation Commission
102 West 500 South, Suite 315
Salt Lake City, UT 84101

Mr. Chester Mills
Superintendent
Bureau of Indian Affairs
P.O. Box 130
Fort Duchesne, UT 84026
(each w/o encls)

# Central Utah Water Conservancy District

355 WEST UNIVERSITY PARKWAY, OREM, UTAH 84058-7303
TELEPHONE (801) 226-7100, FAX (801) 226-7107
TOLL FREE 1-800-281-7103
WEBSITE www.cuwcd.com

OFFICERS
E. Tim Doxey, President
R. Roscoe Garrett, Vice President

Don A. Christiansen, General Manager
Secretary/Treasurer


October 27, 2003

Maxine Natchees, Chairwoman
Ute Indian Tribe
P.O. Box 190
Fort Duchesne, Utah 84026

Dear Ms. Natchees,

The Central Utah Water Conservancy District (CUWCD) in Orem, Utah, is currently engaged in preparation of an Environmental Impact Statement (EIS) regarding the proposed construction of the Utah Lake Drainage Basin Water Delivery System (ULS) of the Bonneville Unit of the Central Utah Project. This project is intended to:

1. Develop, convey and deliver the remaining Bonneville Unit water supply for municipal and industrial uses and temporary agricultural supply along the Wasatch Front of Utah;

2. Complete the remaining environmental commitments of the Bonneville Unit associated with previously constructed systems.

The planning area for the ULS is the Wasatch Front of Utah from Nephi in the south to Salt Lake City in the north. Also included are parts of Wasatch County including the Heber City area, Daniels Canyon, Strawberry Reservoir, Diamond Fork Canyon and a portion of lower Spanish Fork Canyon.

Three alternatives and a no-action alternative have been developed and are being studied as part of the environmental process for the ULS project. As part of the environmental process, cultural resources overview and inventory surveys are being conducted of various proposed pipelines, power lines, staging areas and power facilities within the various alternatives. Sagebrush Consultants, L.L.C., of Ogden, Utah, is completing this work on the project as a part of the management team headed by Montgomery Watson Harza (MWH) of Salt Lake City.

As part of the cultural resources investigations, the CUWCD would like to request your tribe's assistance in site considerations. We would appreciate it if you could let us know about your interest in the project and any concerns that you may have regarding the ULS development project. We are particularly interested in knowing if the proposed project area is located in an area of Ute Indian sensitivity or if it is located on or near important traditional cultural sites. I

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BOARD OF TRUSTEES

Brent Brotherson, David R. Cox, Randy Crozier, Evans Tim Doxey, R. Roscoe Garrett, Harley M. Gillman, Enid Greene, Claude R. Hicken, Roger W. Hicken, Michael H. Jensen, Rondal R. McKee, Gary D. Palmer, David R. Rasmussen, W. Howard Riley, Stanley R. Smith, John L. West, Mark Wilson, Boyd Workman

have enclosed a copy of the latest general description of the project, which includes maps and descriptions of the proposed facilities.

Michael Polk of Sagebrush Consultants will be following up this letter with a telephone call to you in the next few weeks. If you would like us to meet with you to discuss the project, if you have questions, or if there is additional information that you would like to receive, please call Harold Sersland, CUWCD, at (801) 226-7100. Michael Polk can be reached at (801) 394-0013. We look forward to hearing from you in the near future.

Sincerely,

H. Lee Wimmer, P.E.
Program Manager

enclosure

pc: Ron Johnston
Mike Weland
Brian Liming
Mark Breitenbach
Harold Sersland
Betsy Chapoose

I:\1B\1B02\1B02029\2003\A102703M.wpd 1.B.02.029.E0.109

# Central Utah Water Conservancy District

355 WEST UNIVERSITY PARKWAY, OREM, UTAH 84058-7303
TELEPHONE (801) 226-7100, FAX (801) 226-7107
TOLL FREE 1-800-281-7103
WEBSITE www.cuwcd.com

OFFICERS
E. Tim Doxey, President
R. Roscoe Garrett, Vice President

Don A. Christiansen, General Manager
Secretary/Treasurer


October 27, 2003

Gwen Davis, Chairwoman
Northwestern Band of Shoshoni Tribe
427 N. Main Street, Suite 101
Pocatello, Idaho 83204-3016

Dear Ms. Davis,

The Central Utah Water Conservancy District (CUWCD) in Orem, Utah, is currently engaged in preparation of an Environmental Impact Statement (EIS) regarding the proposed construction of the Utah Lake Drainage Basin Water Delivery System (ULS) of the Bonneville Unit of the Central Utah Project. This project is intended to:

1. Develop, convey and deliver the remaining Bonneville Unit water supply for municipal and industrial uses and temporary agricultural supply along the Wasatch Front of Utah;

2. Complete the remaining environmental commitments of the Bonneville Unit associated with previously constructed systems.

The planning area for the ULS is the Wasatch Front of Utah from Nephi in the south to Salt Lake City in the north. Also included are parts of Wasatch County including the Heber City area, Daniels Canyon, Strawberry Reservoir, Diamond Fork Canyon and a portion of lower Spanish Fork Canyon.

Three alternatives and a no-action alternative have been developed and are being studied as part of the environmental process for the ULS project. As part of the environmental process, cultural resources overview and inventory surveys are being conducted of various proposed pipelines, power lines, staging areas and power facilities within the various alternatives. Sagebrush Consultants, L.L.C., of Ogden, Utah, is completing this work on the project as a part of the management team headed by Montgomery Watson Harza (MWH) of Salt Lake City.

As part of the cultural resources investigations, the CUWCD would like to request your tribe's assistance in site considerations. We would appreciate it if you could let us know about your interest in the project and any concerns that you may have regarding the ULS development project. We are particularly interested in knowing if the proposed project area is located in an area of Northwestern Band sensitivity or if it is located on or near important traditional cultural

I:\1B\1B02\1B02029\2003\A102703O.wpd 1.B.02.029.E0.109


BOARD OF TRUSTEES

Brent Brotherson, David R. Cox, Randy Crozier, Evans Tim Doxey, R. Roscoe Garrett, Harley M. Gillman, Enid Greene, Claude R. Hicken, Roger W. Hicken, Michael H. Jensen, Rondal R. McKee, Gary D. Palmer, David R. Rasmussen, W. Howard Riley, Stanley R. Smith, John L. West, Mark Wilson, Boyd Workman

sites. I have enclosed a copy of the latest general description of the project, which includes maps and descriptions of the proposed facilities.

Michael Polk of Sagebrush Consultants will be following up this letter with a telephone call to you in the next few weeks. If you would like us to meet with you to discuss the project, if you have questions, or if there is additional information that you would like to receive, please call Harold Sersland, CUWCD, at (801) 226-7100. Michael Polk can be reached at (801) 394-0013. We look forward to hearing from you in the near future.

Sincerely,

H. Lee Wimmer, P.E.
Program Manager

enclosure

pc: Ron Johnston
Mike Weland
Brian Liming
Mark Breitenbach
Harold Sersland
Gwen Davis
Bruce Parry

I:\1B\1B02\1B02029\2003\A102703O.wpd 1.B.02.029.E0.109

# Central Utah Water Conservancy District

355 WEST UNIVERSITY PARKWAY, OREM, UTAH 84058-7303
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TOLL FREE 1-800-281-7103
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E. Tim Doxey, President
R. Roscoe Garrett, Vice President

Don A. Christiansen, General Manager
Secretary/Treasurer


October 27, 2003

Fredrick Auk, Chair
Shoshone-Bannock Tribes
P.O. Box 306
Fort Hall, Idaho 83203

Dear Mr. Auk,

The Central Utah Water Conservancy District (CUWCD) in Orem, Utah, is currently engaged in preparation of an Environmental Impact Statement (EIS) regarding the proposed construction of the Utah Lake Drainage Basin Water Delivery System (ULS) of the Bonneville Unit of the Central Utah Project. This project is intended to:

1. Develop, convey and deliver the remaining Bonneville Unit water supply for municipal and industrial uses and temporary agricultural supply along the Wasatch Front of Utah;

2. Complete the remaining environmental commitments of the Bonneville Unit associated with previously constructed systems.

The planning area for the ULS is the Wasatch Front of Utah from Nephi in the south to Salt Lake City in the north. Also included are parts of Wasatch County including the Heber City area, Daniels Canyon, Strawberry Reservoir, Diamond Fork Canyon and a portion of lower Spanish Fork Canyon.

Three alternatives and a no-action alternative have been developed and are being studied as part of the environmental process for the ULS project. As part of the environmental process, cultural resources overview and inventory surveys are being conducted of various proposed pipelines, power lines, staging areas and power facilities within the various alternatives. Sagebrush Consultants, L.L.C., of Ogden, Utah, is completing this work on the project as a part of the management team headed by Montgomery Watson Harza (MWH) of Salt Lake City.

As part of the cultural resources investigations, the CUWCD would like to request your tribe's assistance in site considerations. We would appreciate it if you could let us know about your interest in the project and any concerns that you may have regarding the ULS development project. We are particularly interested in knowing if the proposed project area is located in an area of Shoshone-Bannock Tribal sensitivity or if it is located on or near important traditional

I:\1B\1B02\1B02029\2003\A102703P.wpd 1.B.02.029.E0.109


BOARD OF TRUSTEES

Brent Brotherson, David R. Cox, Randy Crozier, Evans Tim Doxey, R. Roscoe Garrett, Harley M. Gillman, Enid Greene, Claude R. Hicken, Roger W. Hicken, Michael H. Jensen, Rondal R. McKee, Gary D. Palmer, David R. Rasmussen, W. Howard Riley, Stanley R. Smith, John L. West, Mark Wilson, Boyd Workman

cultural sites. I have enclosed a copy of the latest general description of the project, which includes maps and descriptions of the proposed facilities.

Michael Polk of Sagebrush Consultants will be following up this letter with a telephone call to you in the next few weeks. If you would like us to meet with you to discuss the project, if you have questions, or if there is additional information that you would like to receive, please call Harold Sersland, CUWCD, at (801) 226-7100. Michael Polk can be reached at (801) 394-0013. We look forward to hearing from you in the near future.

Sincerely,

H. Lee Wimmer, P.E.
Program Manager

enclosure

pc: Ron Johnston
Mike Weland
Brian Liming
Mark Breitenbach
Harold Sersland
Cultural Resource Program, Shoshone-Bannock Tribes

I:\1B\1B02\1B02029\2003\A102703P.wpd 1.B.02.029.E0.109

# Central Utah Water Conservancy District

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E. Tim Doxey, President
R. Roscoe Garrett, Vice President

Don A. Christiansen, General Manager
Secretary/Treasurer


October 27, 2003

Leon Bear, Chairman
Skull Valley Band of Goshute Indians
3359 So. Main St., #808
Salt Lake City, UT 84115

Dear Mr. Bear,

The Central Utah Water Conservancy District (CUWCD) in Orem, Utah, is currently engaged in preparation of an Environmental Impact Statement (EIS) regarding the proposed construction of the Utah Lake Drainage Basin Water Delivery System (ULS) of the Bonneville Unit of the Central Utah Project. This project is intended to:

1. Develop, convey and deliver the remaining Bonneville Unit water supply for municipal and industrial uses and temporary agricultural supply along the Wasatch Front of Utah;

2. Complete the remaining environmental commitments of the Bonneville Unit associated with previously constructed systems.

The planning area for the ULS is the Wasatch Front of Utah from Nephi in the south to Salt Lake City in the north. Also included are parts of Wasatch County including the Heber City area, Daniels Canyon, Strawberry Reservoir, Diamond Fork Canyon and a portion of lower Spanish Fork Canyon.

Three alternatives and a no-action alternative have been developed and are being studied as part of the environmental process for the ULS project. As part of the environmental process, cultural resources overview and inventory surveys are being conducted of various proposed pipelines, power lines, staging areas and power facilities within the various alternatives. Sagebrush Consultants, L.L.C., of Ogden, Utah, is completing this work on the project as a part of the management team headed by Montgomery Watson Harza (MWH) of Salt Lake City.

As part of the cultural resources investigations, the CUWCD would like to request your tribe's assistance in site considerations. We would appreciate it if you could let us know about your interest in the project and any concerns that you may have regarding the ULS development project. We are particularly interested in knowing if the proposed project area is located in an area of Goshute Indian sensitivity or if it is located on or near important traditional cultural sites.

I:\1B\1B02\1B02029\2003\A102703N.wpd 1.B.02.029.E0.109


BOARD OF TRUSTEES

Brent Brotherson, David R. Cox, Randy Crozier, Evans Tim Doxey, R. Roscoe Garrett, Harley M. Gillman, Enid Greene, Claude R. Hicken, Roger W. Hicken, Michael H. Jensen, Rondal R. McKee, Gary D. Palmer, David R. Rasmussen, W. Howard Riley, Stanley R. Smith, John L. West, Mark Wilson, Boyd Workman

I have enclosed a copy of the latest general description of the project, which includes maps and descriptions of the proposed facilities.

Michael Polk of Sagebrush Consultants will be following up this letter with a telephone call to you in the next few weeks. If you would like us to meet with you to discuss the project, if you have questions, or if there is additional information that you would like to receive, please call Harold Sersland, CUWCD, at (801) 226-7100. Michael Polk can be reached at (801) 394-0013. We look forward to hearing from you in the near future.

Sincerely,

H. Lee Wimmer, P.E.
Program Manager

enclosure

pc: Ron Johnston
Mike Weland
Brian Liming
Mark Breitenbach
Harold Sersland

I:\1B\1B02\1B02029\2003\A102703N.wpd 1.B.02.029.E0.109

# THE PAIUTE INDIAN TRIBE OF UTAH

**440 North Paiute Drive • Cedar City, Utah 84720 ;(435) 586-1112**


February 17, 2004

Barbara Blackshear, Ma
Provo Area Office Archaeoligist
U.S. Dept. Of the Interior
Bureau of Reclamation
Provo Area Office
302 E. 1860 So.
Provo, Utah 84606

Dear Ms Blackshire:

**SUBJECT:** Utah Lake Project

The Paiute Indian Tribe of Utah recently met with Ms Barbara Blackshear from Provo, Utah also Mr Terry J. Hickman from Orem, Utah, on January 03, 2004 concerning the Utah Lake Project. Present at this meeting were Chairwoman, Lora Tom, Jeff Zander and Tara Marlowe from Environmental, Dorena Martineau, Cultural Resources. We talked about the Utah Lake Project and have reviewed the material and have no objections pertaining to the project. Our interest is not limited to cultural resources but include plants and natural springs or other places of interest. These particular areas that the proposed project is being considered for, is lands that are part of the aboriginal Southern Paiute home lands.

Please notify the Paiute Indian Tribe of Utah of any cultural information that is found including type and location, also updates or changes to the Project.

Sincerely,

Dorena Martineau

Dorena Martineau
Culture Resource Manager
Paiute Indian Tribe of Utah

February 13, 2004

Central Utah Water Conservancy District
Terry J. Hickman
Assistant Environmental Programs Manager
355 West University Parkway
Orem, Utah 84058-7303

RE: Utah Lake Drainage Basin – Water Delivery System

Dear Mr. David Herron:

This letter is in response to the Utah Lake Drainage Basin – Water Delivery System.

As relatives of the Ute, Paiute, and Goshute people we recognize the territory of the Indian Claims Commission and recognize this area should be handled by the Ute, Paiute, and Goshute Tribes.

Therefore, the Northwestern Band of Shoshone will exclude them self from this project as it is not within the aboriginal boundaries of the Northwestern Band of Shoshone as setup by the Indian Claims Commission. Our office would request that if any changes are made to move the project northward we would like to be kept informed.

If further information or assistance is needed, please contact our office at 435-734-2286.

Respectfully,

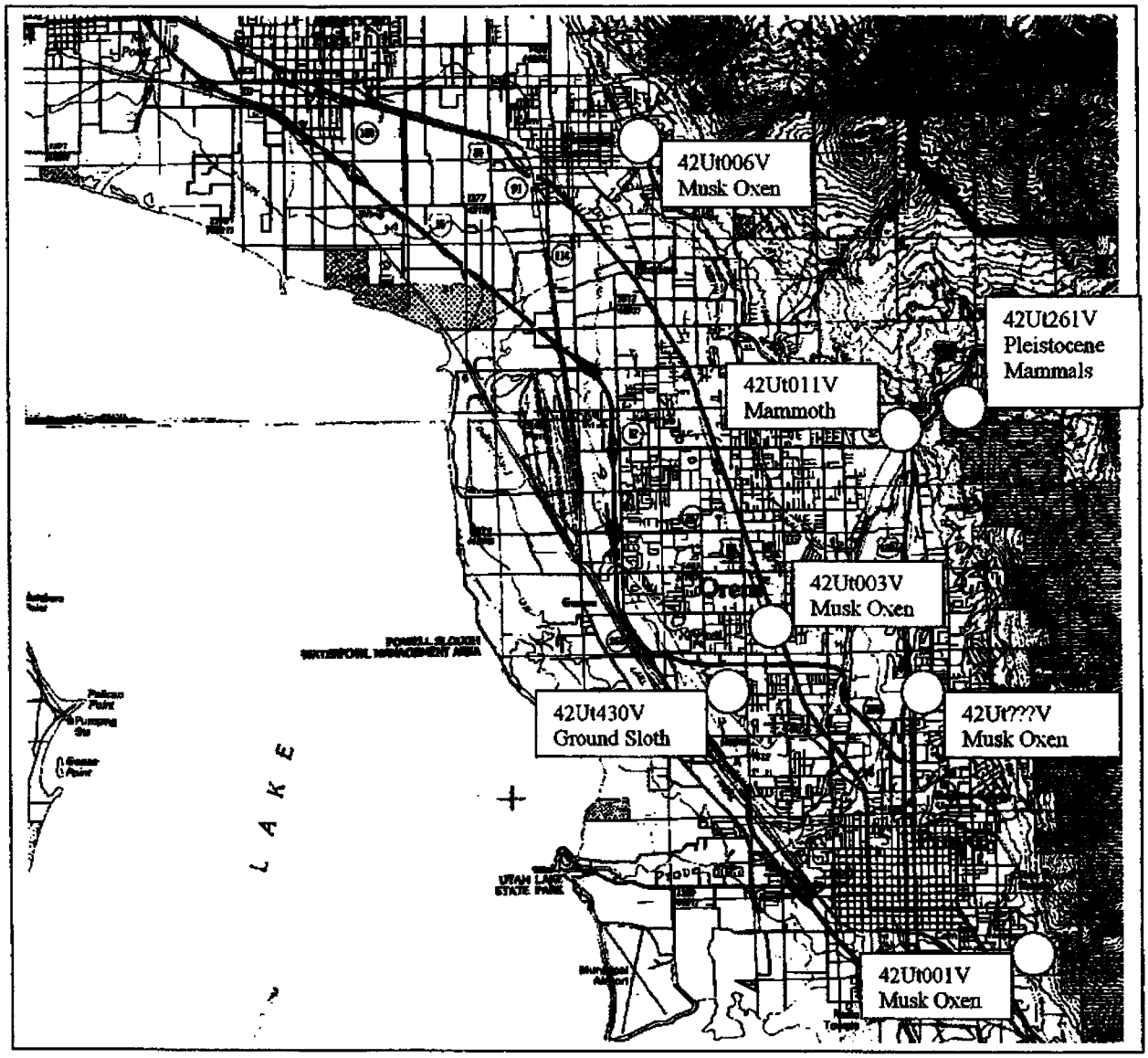
Patty G. Timbimboo-Madsen
Cultural/Natural Resource Manager
Northwestern Band of Shoshone

# Utah Lake Drainage Basin
# Water Delivery System
## Bonneville Unit, Central Utah Project

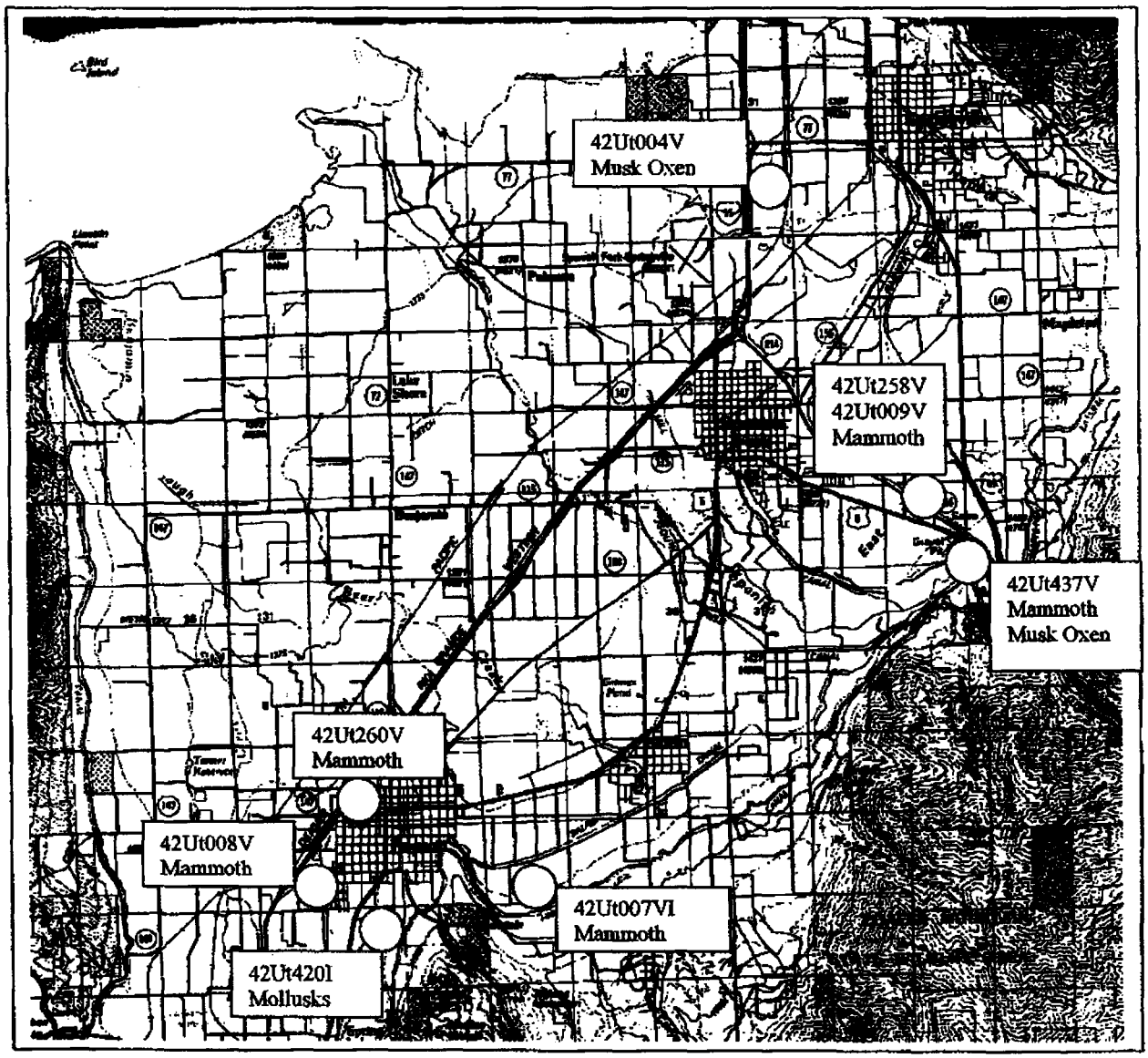
## Final
## Environmental Impact Statement

## *Appendix H*
## *Paleontological Locality*
## *Data Sheets*

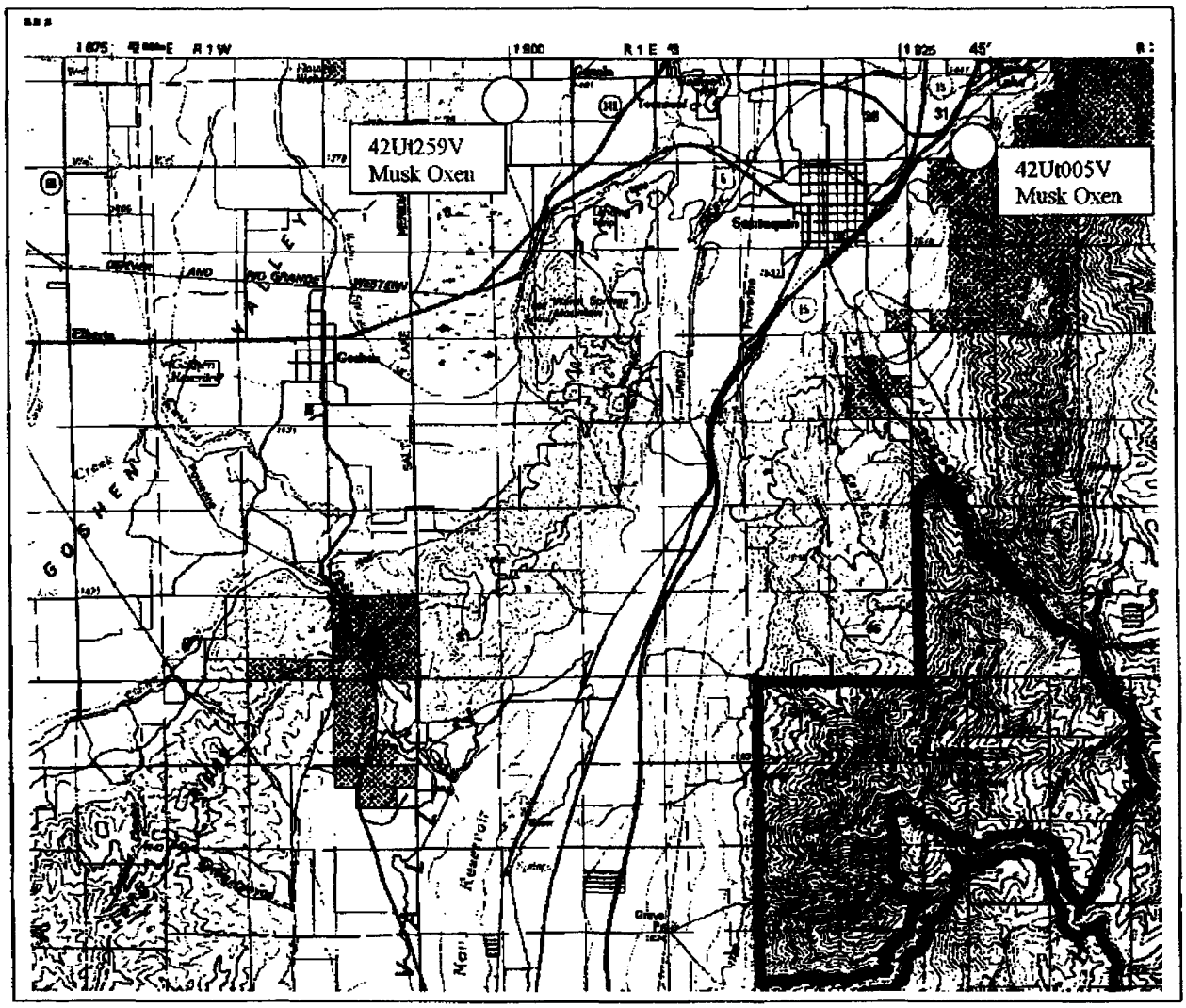
# Appendix H
# Paleontological Locality Data Sheets




Known Pleistocene paleontological localities in the Pleasant Grove, Orem and Provo areas (approximate locations).
Provo 30 x 60 map, [-------] Scale 1 mile




Known Pleistocene paleontological localities in the Springville, Spanish Fork, and Payson areas (approximate locations).
Provo 30 X 60 map, [------] Scale 1 mile




Known Pleistocene paleontological localities in
The Santaquin and Genola areas
(approximate locations)
Provo 30 X 60 map [------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut462IP .
Agency No. _____.
Temporary No. ULS 1 _____.

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene _____.

3. Description of geology and Topography: Mountainous, vegetated, Road cut exposure _____.

4. Location of Outcrop: Near (NW) locked gate going down into Sixth Water _____.

5. Map Ref.: U.S.G.S. Quad. Two Tom Hill, UT , Scale 7.5 Min., Edition 1998 _____.

Center of W1/2 of NE1/4 of NE /4 of Section 7 , T. 8 S. , R. 6 E. , Meridian Salt Lake _____.

UTM Grid Zone: 12 S , _____ 0474709 m E _____ 4442886 m N

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork _____.

7. Specimens Observed/Collected: Plant fragment impressions, Ostrocodes _____.

8. Collector: _____ NA _____ Date: _____.

9. Repository/Accession No.s: NA _____.

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None _____.

12. Type of Map made by Recorder: Attached _____.

13. Disposition of Photos/Negatives: _____.

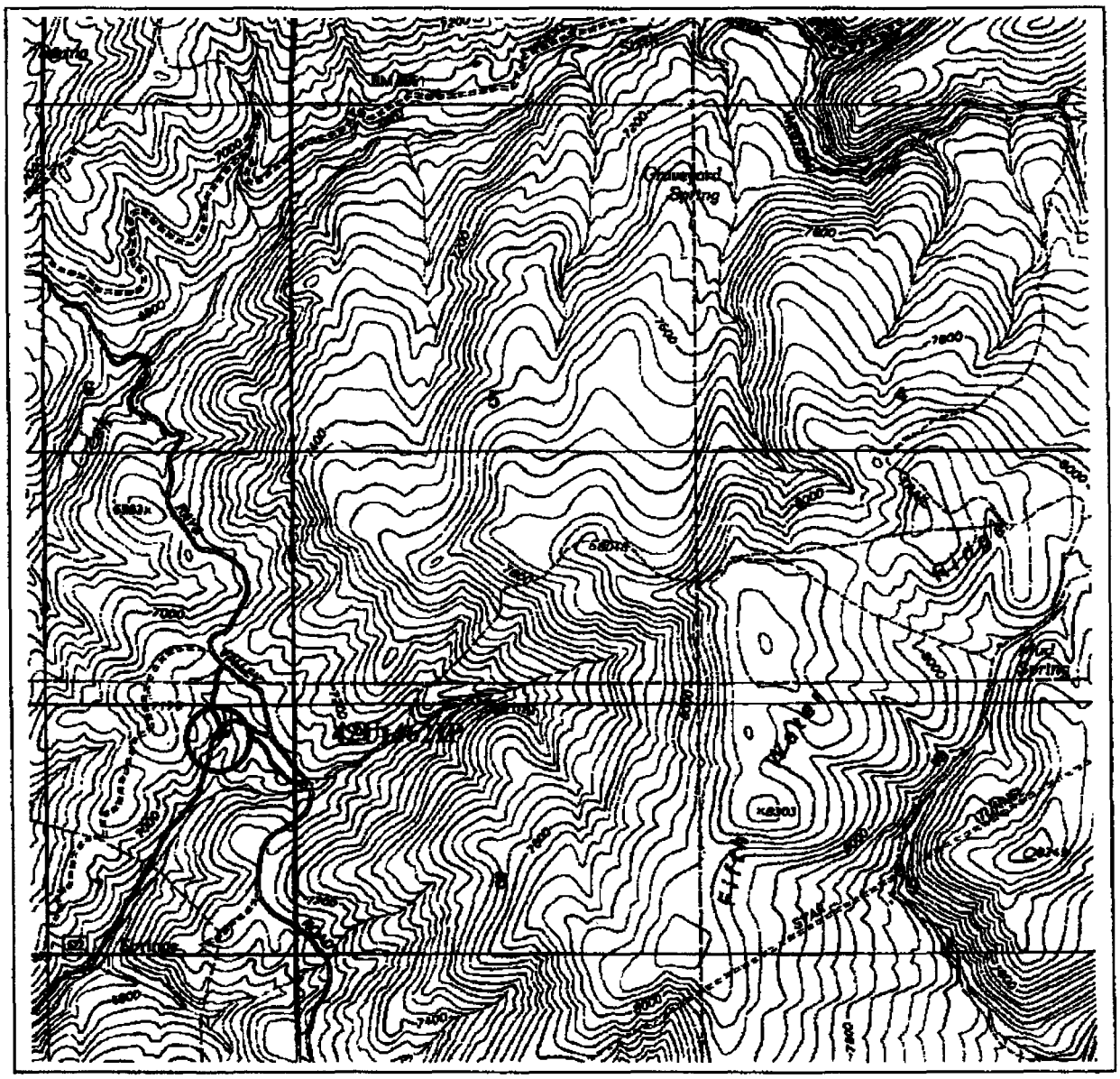
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ ] (Class 3) Insignificant [ X ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin _____ Date: May 28, 2003 _____.

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut462IP
Two Tom Hill, Utah Quadrangle
[————————————————] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut463IPV .
Agency No. _____.
Temporary No. ULS 2 _____.

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene _____.

3. Description of geology and Topography: Mountainous, hilly, vegetated, Road cut exposure _____.

4. Location of Outcrop: Small drainage on north side of Fifth Water under powerline _____.

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 _____.

NW1/4 of NE1/4 of NE1/4 of NW1/4 of Section 20 , T. 8 S. , R. 6 E. , Meridian Salt Lake _____.

UTM Grid Zone: 12 S , (A) 0475689 m E 4442886 m N
, (B) 0475699 m E 4439848 m N

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork _____.

7. Specimens Observed/Collected: (A) One isolated tooth- Mammal or reptile? (B) Fish bone fragments, plants fragments, gastropods, and pelecypods. _____

8. Collector: Alden Hamblin Date: May 28, 2003 _____.

9. Repository/Accession No.s: Pending additional research, but will be reposited at BYU Earth Science Museum _____.

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None _____.

12. Type of Map made by Recorder: Attached _____.

13. Disposition of Photos/Negatives: A. Hamblin _____.

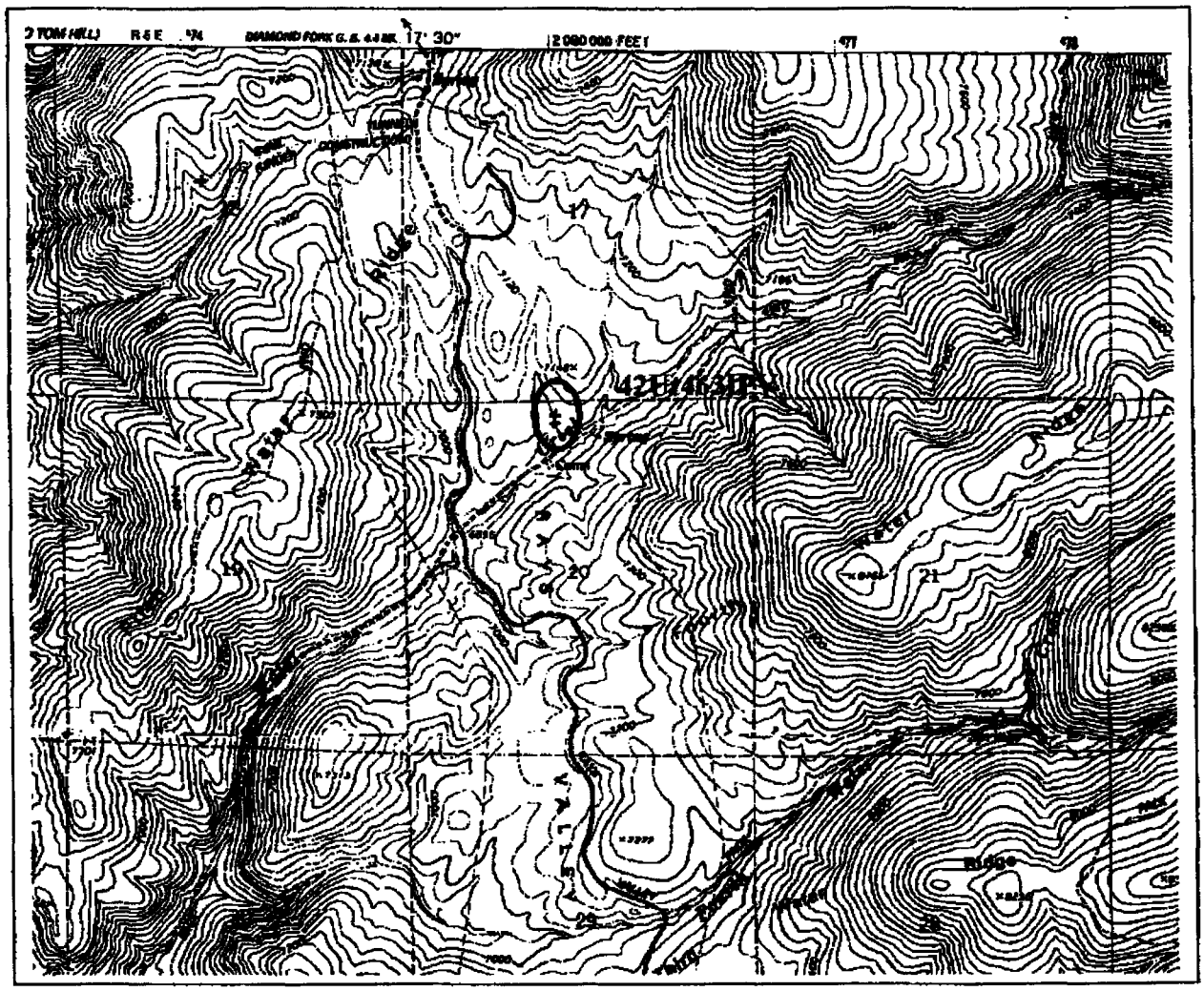
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ X ] (Class 2) Important [ ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: May 28, 2003 _____.

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut463IPV
Ray's Valley, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut464IPV .
Agency No. _____.
Temporary No. ULS 3 _____.

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene _____.

3. Description of geology and Topography: Mountainous, hilly, vegetated, Road cut exposure .

4. Location of Outcrop: West and East of curve in highway on small ridge south of Third Water .

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 _____.

W side of SW1/4 of NW1/4 of NE1/4 of Section 32 , T. 8 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , _____ 0475830 m E _____ 4436443 mN

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork _____.

7. Specimens Observed/Collected: Ostrocodes, fish fragments, pelecypods, and gastropods.

8. Collector: NA _____ Date: _____.

9. Repository/Accession No.s: NA _____.

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None _____.

12. Type of Map made by Recorder: Attached _____.

13. Disposition of Photos/Negatives: _____.

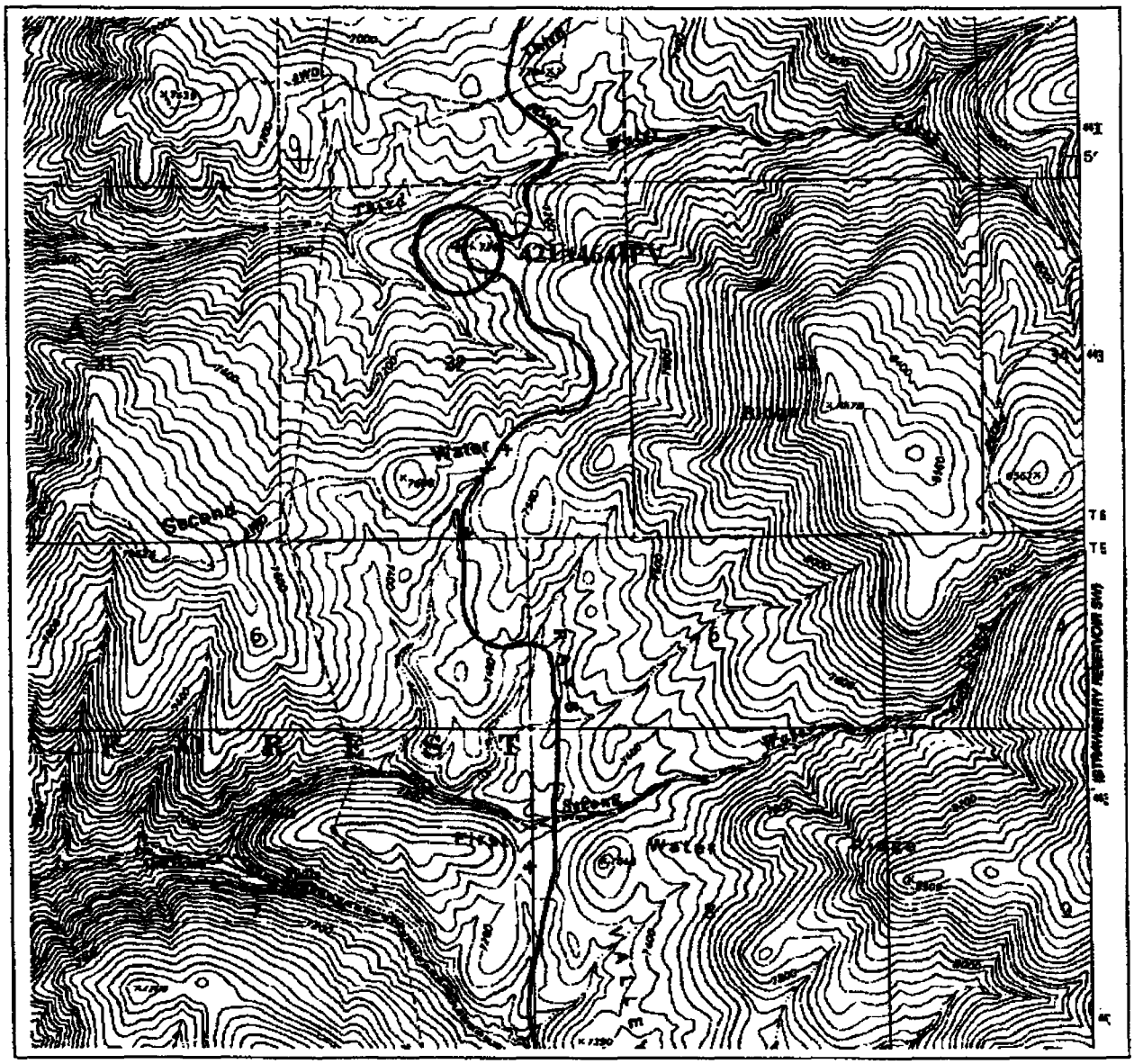
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin _____ Date: May 28, 2003 _____.

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut464IPV
Ray's Valley, Utah Quadrangle
[————————————————] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut465IPV .
Agency No. _____.
Temporary No. ULS 4 _____.

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene _____.

3. Description of geology and Topography: Mountainous, vegetated, Road cut exposure _____.

4. Location of Outcrop: Road cut exposure, both sides, 3 sites, on Second Water Ridge _____.

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 _____.

(A) NW1/4of SW1/4 of SW1/4 of SE1/4 , (B) ___of NW1/4 of SW1/4 of SE1/4
(C) ___of SW1/4 of SW1/4 of SE1/4 of Section 32 , T. 8 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , (A) 0476047 mE 4435578 mN
(B) 0475960 mE 4435477 mN, (C) 0475851 mE 4435185 mN

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork _____.

7. Specimens Observed/Collected: (A) Gastropods, pelecypods, plant impressions, (B) Turtle shell fragments in sandstone blocks, (C) Gastropods.

8. Collector: NA _____ Date: _____.

9. Repository/Accession No.s: NA _____.

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None _____.

12. Type of Map made by Recorder: Attached _____.

13. Disposition of Photos/Negatives: A. Hamblin _____.

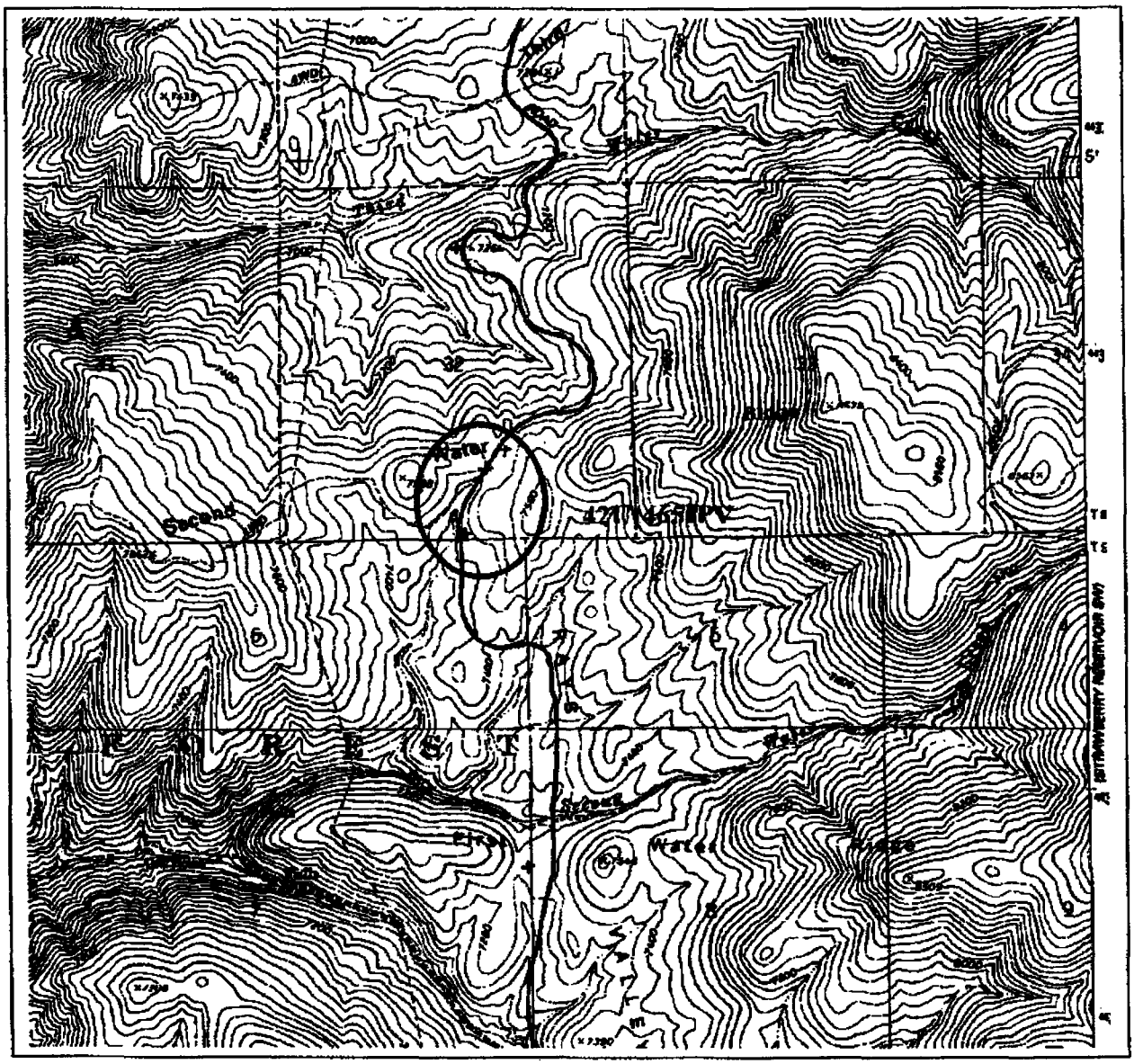
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] Significant [ ] Important [X] Insignificant [ ] Unimportant [ ]
(Class 1) (Class 2) (Class 3) (Class 4) (Class 5)

17. Recorded by: Alden H. Hamblin Date: May 28, 2003 _____.

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.


Water
Second
42Ut465IPV
Water
Water
Water

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut466IPV .
Agency No. _____.
Temporary No. ULS 5 _____.

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene _____.

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops _____.

4. Location of Outcrop: First Water Ridge, West of the highway 100 yards or so _____.

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 _____.

NE1/4 of SE1/4 of SE1/4 of NE1/4 of Section 7 , T. 9 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , _____ 0476114 mE _____ 4433681 mN

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork _____.

7. Specimens Observed/Collected: Fish bone fragments, plant fragments, gastropods, pelecypods _____

8. Collector: NA _____ Date: _____.

9. Repository/Accession No.s: NA _____.

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None _____.

12. Type of Map made by Recorder: Attached _____.

13. Disposition of Photos/Negatives: None _____.

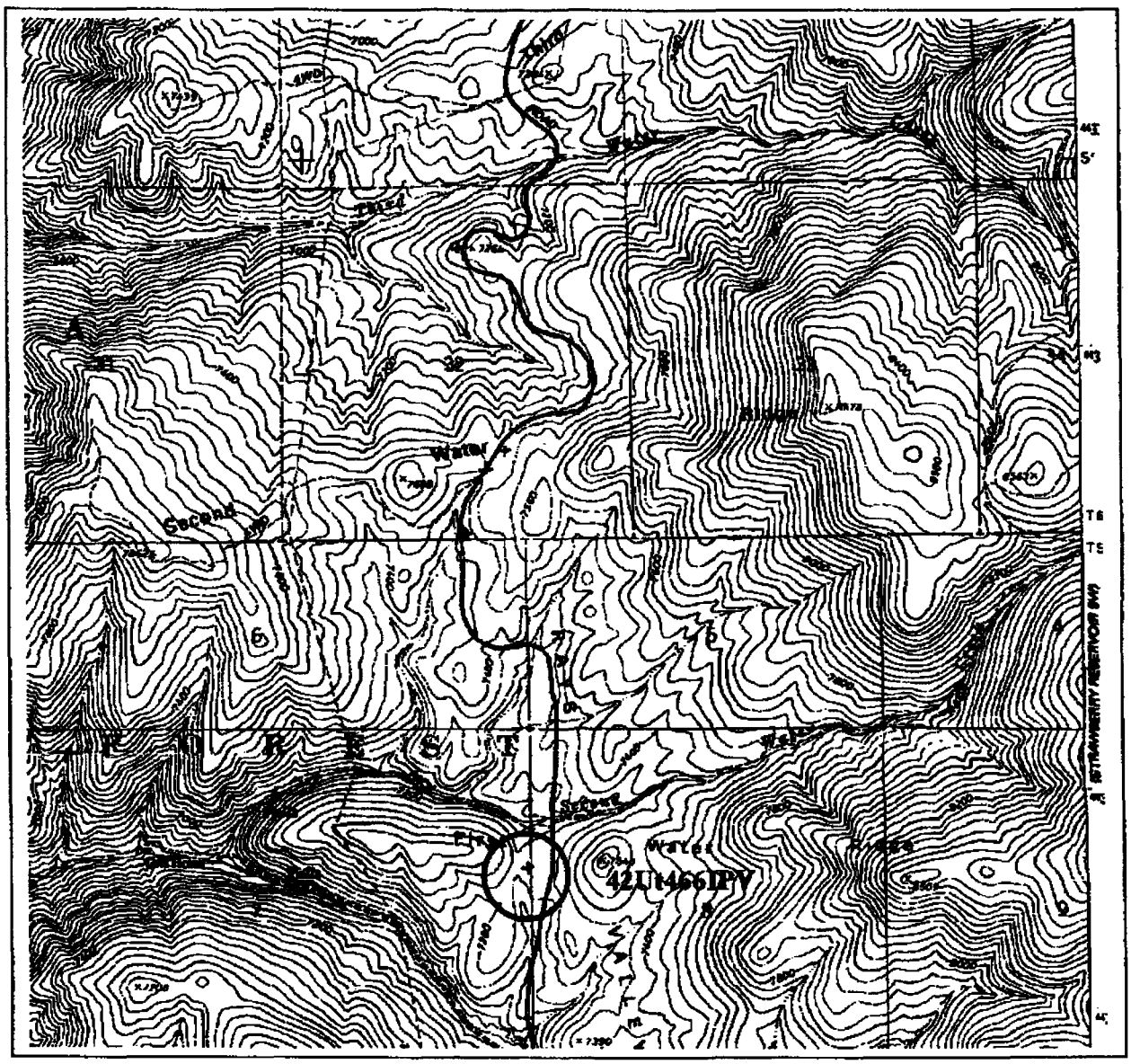
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin _____ Date: May 28, 2003 _____.

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut466IPV
Ray's Valley, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut467IPV .
Agency No. _____.
Temporary No. ULS 6 _____.

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene _____.

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops _____.

4. Location of Outcrop: On the north side of a road cut on the old road _____.

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 _____.

_____of SW1/4 of NE1/4 of NE1/4 of Section 18 , T. 9 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , _____ 0475803 mE _____ 4431631 mN

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork _____.

7. Specimens Observed/Collected: Several rocks with turtle shell fragments, also plant impressions, gastropods, and fish bone fragments _____.

8. Collector: _____ NA _____ Date: _____.

9. Repository/Accession No.s: NA _____.

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None _____.

12. Type of Map made by Recorder: Attached _____.

13. Disposition of Photos/Negatives: A. Hamblin _____.

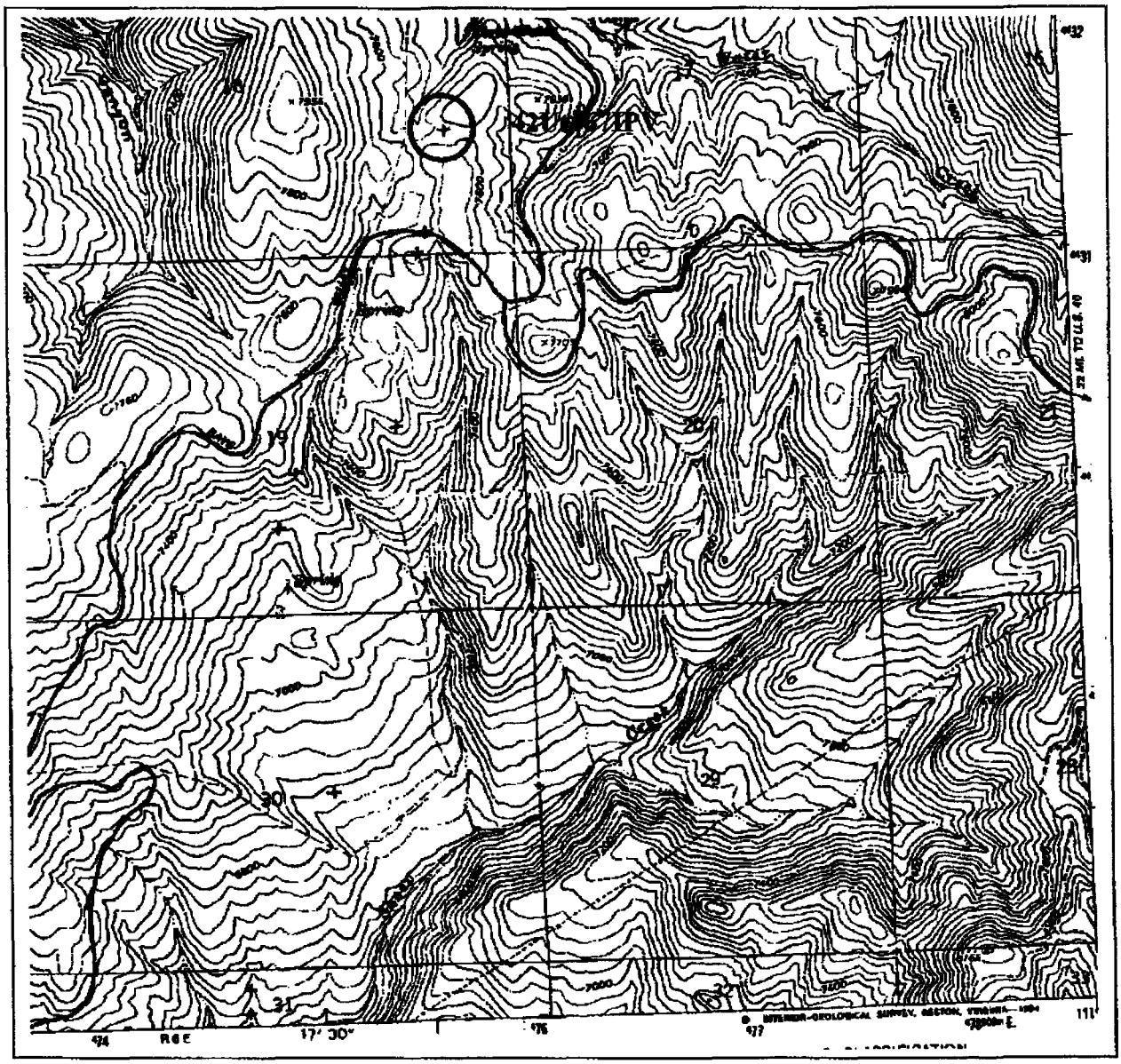
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class1) Significant [ ] (Class 2) Important [X] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin _____ Date: May 29, 2003 _____.

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut467IPV
Ray's Valley, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut468IPV .
Agency No. _____.
Temporary No. ULS 7 _____.

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene _____.

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops _____.

4. Location of Outcrop: Road cut on south side of highway, near powerline/transformer _____.

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 _____.

____of SW1/4 of SE1/4 of SE1/4 of Section 18 , T. 9 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , (A) 0475698 m E 4431163 m N
, (B) 0475672 m E 4431078 m N

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork _____.

7. Specimens Observed/Collected: (A) Gastropods, plant fragments, bone fragments including turtle shell, (B) Gastropods _____.

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA _____.

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None _____.

12. Type of Map made by Recorder: Attached _____.

13. Disposition of Photos/Negatives: A. Hamblin _____.

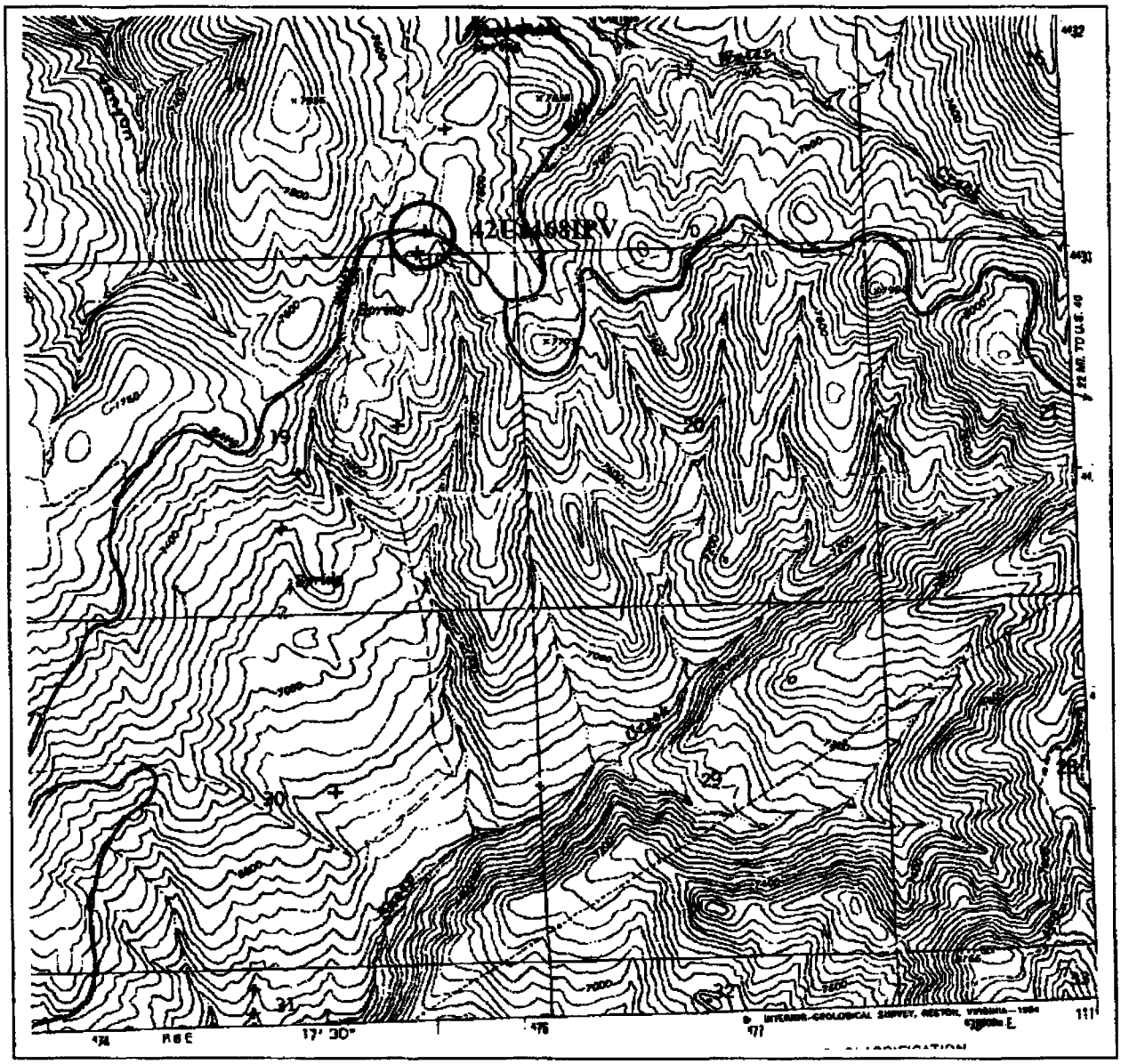
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] Significant [ ] Important [ X ] Insignificant [ ] Unimportant [ ]
(Class1) (Class 2) (Class 3) (Class 4) (Class 5)

17. Recorded by: Alden H. Hamblin Date: (A)May 29 2003, (B)June 4, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut468IPV
Ray's Valley, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut469IV .
Agency No. _____.
Temporary No. ULS 8 .

1. Type of Locality: Invertebrate [ X ] Plant [ ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene .

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops .

4. Location of Outcrop: South slope between highway and sheep Creek .

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 .

SW1/4 of SE1/4 of SW1/4 of NE1/4 of Section 19 , T. 9 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , 0475539 mE 4430310 mN

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork .

7. Specimens Observed/Collected: Pelecypods, Gastropods, turtle shell fragments, fish bone fragments .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: A. Hamblin .

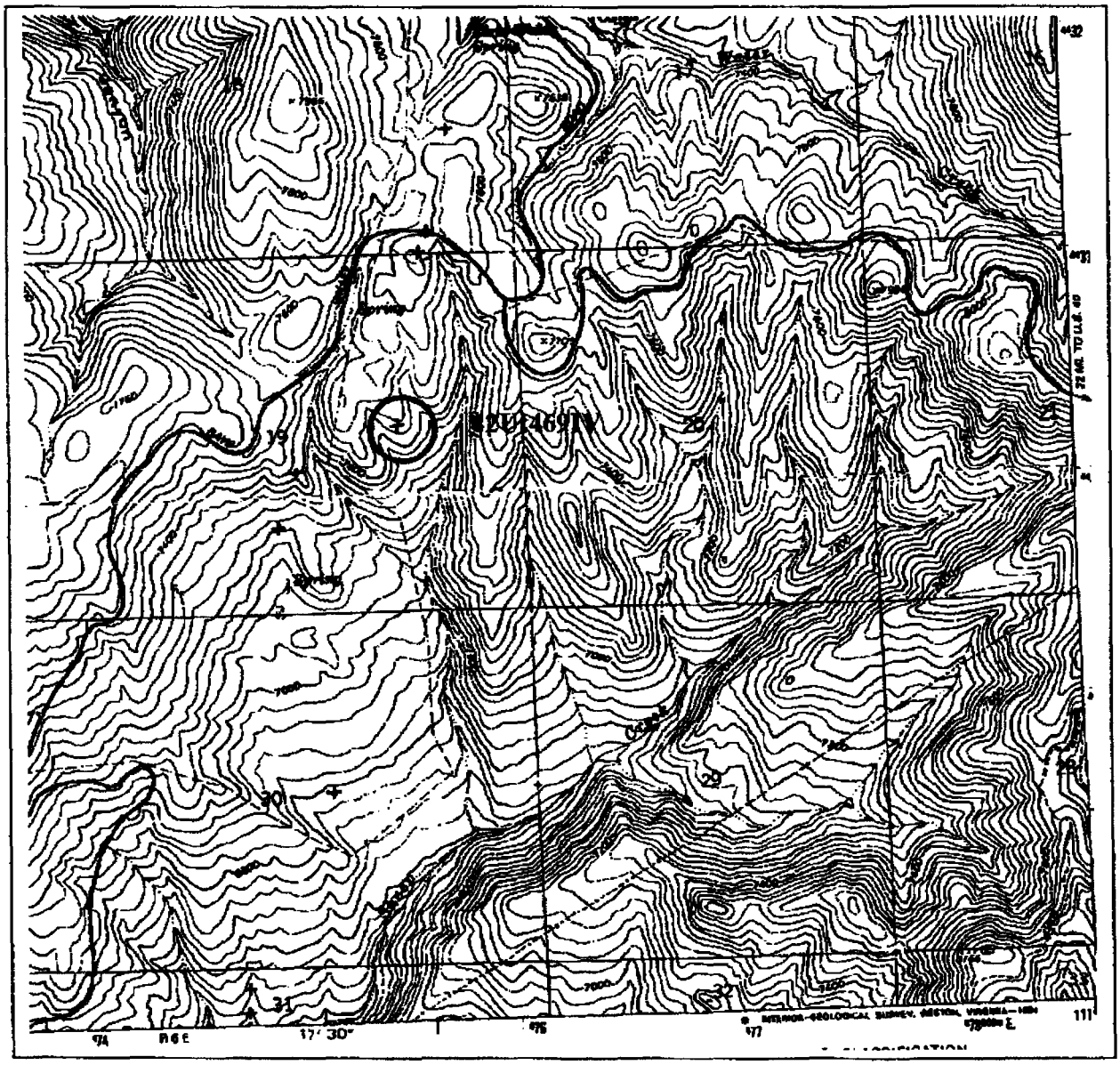
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class1) Significant [ ] (Class 2) Important [X] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 4, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut469IV
Ray's Valley, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut470I .
Agency No. _____.
Temporary No. ULS 9 .

1. Type of Locality: Invertebrate [ X ] Plant [ ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene .

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops .

4. Location of Outcrop: South slope above Sheep Creek in small gulley just west of powerline .

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 .

of of SW1/4 of NE1/4 of Section 30 , T. 9 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , 0475195 mE 4428657 mN

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork .

7. Specimens Observed/Collected: Fossil hash of gastropods (Turritella?) and pelecypods .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: A. Hamblin .

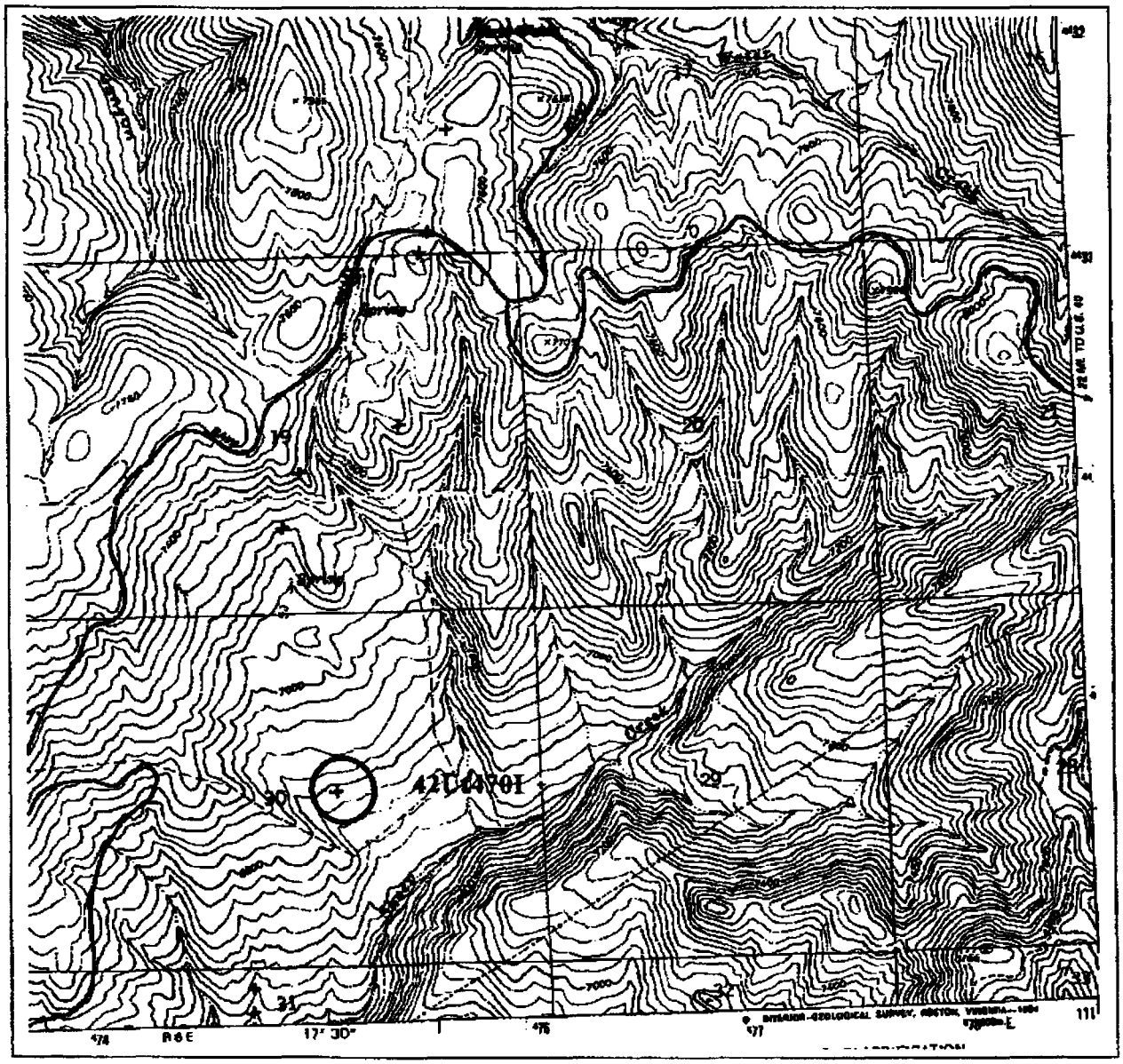
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 4, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut470I
Ray's Valley, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut471PV .
Agency No. _____.
Temporary No. ULS 10 _____.

1. Type of Locality: Invertebrate [ ] Plant [ X ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene _____.

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops _____.

4. Location of Outcrop: Near reclaimed old road, shale outcrop _____.

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 _____.

____of____of NW/4 of SE1/4 of Section 19 , T. 9 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , _____ (A) 0474989 m E _____ 4429866 m N
, _____ (B) 0475073 m E _____ 4430098 m N

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork _____.

7. Specimens Observed/Collected: (A) & (B) Thin bedded shale with fish bone fragments and plant fragments _____.

8. Collector: _____ NA _____ Date: _____.

9. Repository/Accession No.s: NA _____.

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None _____.

12. Type of Map made by Recorder: Attached _____.

13. Disposition of Photos/Negatives: None _____.

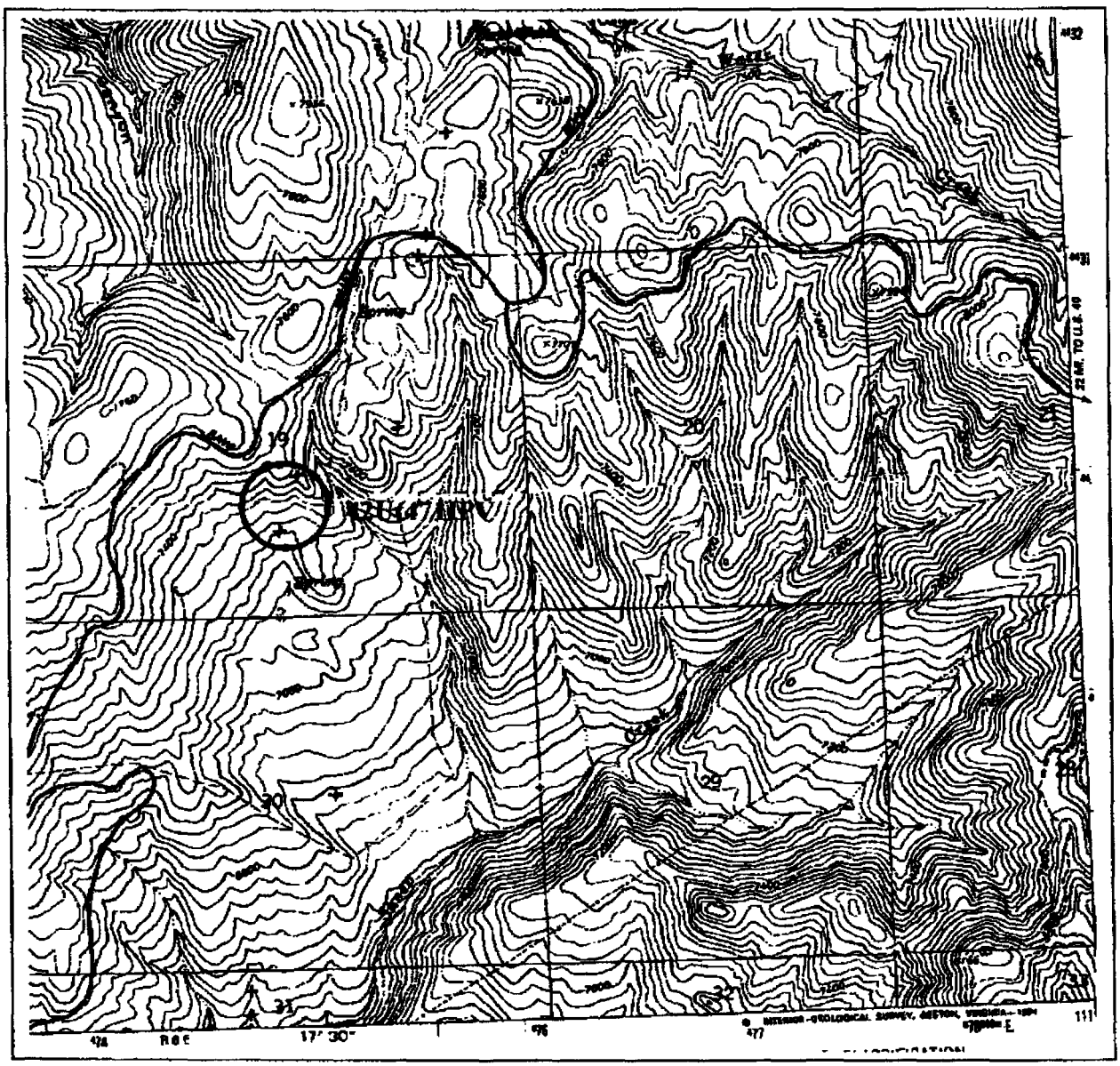
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] Significant [ ] Important [ X ] Insignificant [ ] Unimportant [ ]
(Class1) (Class 2) (Class 3) (Class 4) (Class 5)

17. Recorded by: Alden H. Hamblin _____ Date: June 4, 2003 _____.

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut471IPV
Ray's Valley, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut472IPVT .
Agency No. _____.
Temporary No. ULS 11 .

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ X ] Trace [X ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene .

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops .

4. Location of Outcrop: Small gulley, tributary to Sheep Creek, running north .

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 .

____of NE1/4 of NE/4 of NW1/4 of Section 31 , T. 9 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , (A) 0474764 m E 4427761 m N
, (B) 0474756 m E 4427663 m N

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork .

7. Specimens Observed/Collected: Plant impressions, gastropods, fish bone fragments, possible bird bone fragments, and hints of several 1 to 2 inch bird tracks .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: Potential for some important material at this site. Could be explored further. No mitigation recommended for this project. .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: A. Hamblin .

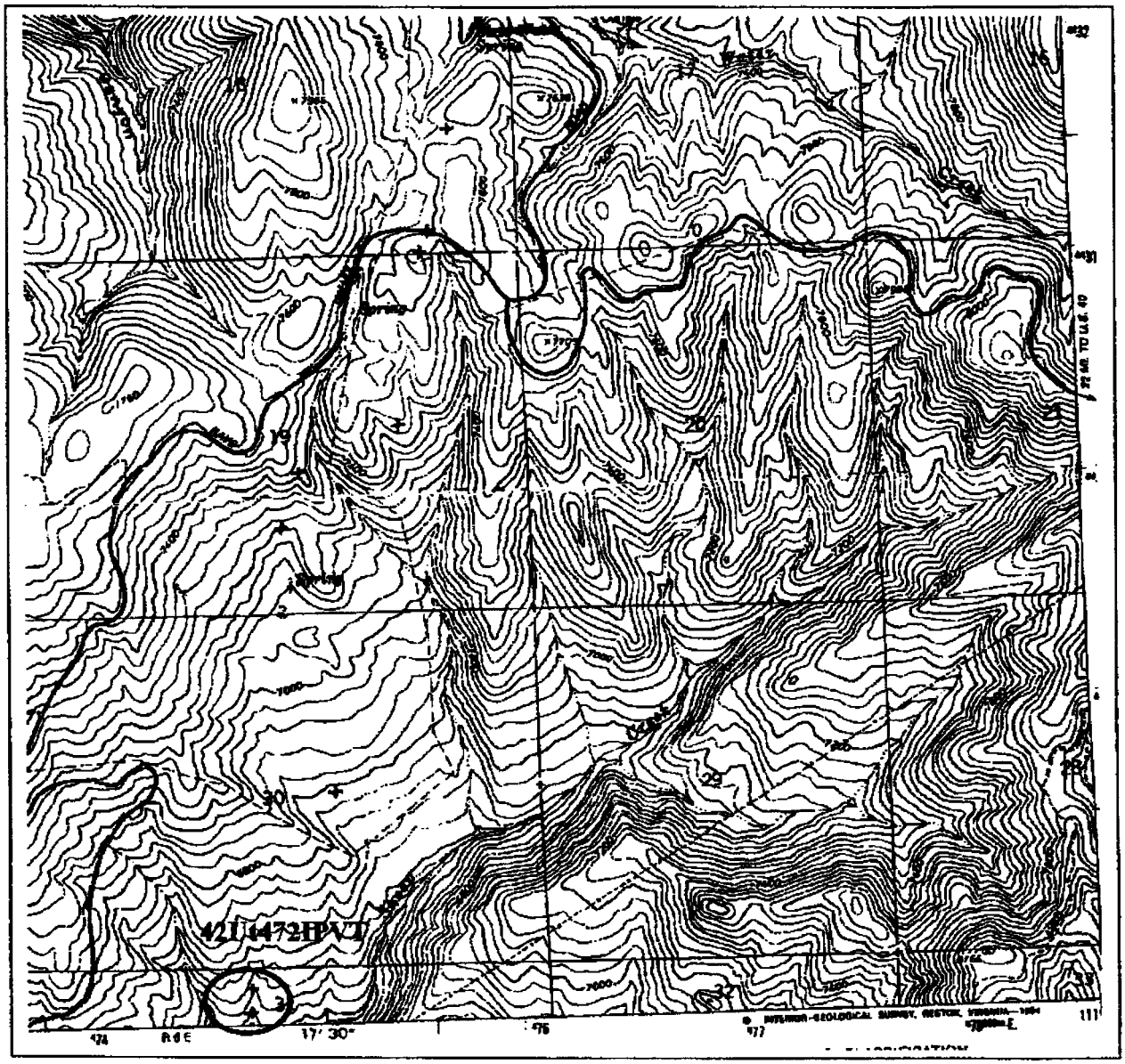
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] Significant [ X ] Important [ ] Insignificant [ ] Unimportant [ ]
(Class1) (Class 2) (Class 3) (Class 4) (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 10, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut472IPVT
Ray's Valley, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut473PV .
Agency No. _____.
Temporary No. ULS 12 (South of ULS 11) .

1. Type of Locality: Invertebrate [ ] Plant [ X ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene .

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops .

4. Location of Outcrop: North and south sides of Sheep Creek .

5. Map Ref.: U.S.G.S. Quad. Mill Fork, UT , Scale 7.5 Min., Edition 1967 .

of W1/2 of SE/4 of NW1/4 of Section 31 , T. 9 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , (A) 0474780 m E 4427478 m N
, (B) 0474725 m E 4427393 m N

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork .

7. Specimens Observed/Collected: Plant impressions, fish bone fragments .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: _____.

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: _____.

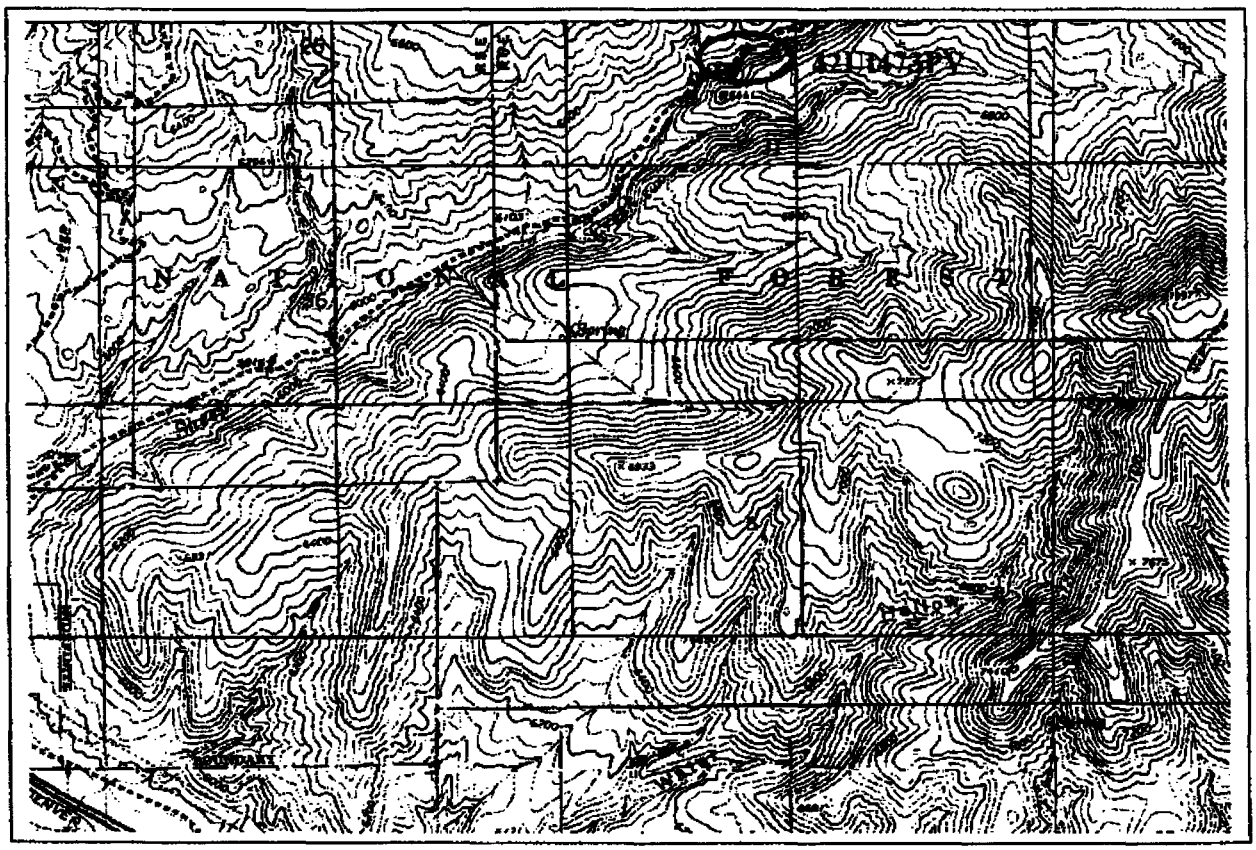
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 10, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut473PV
Mill Fork, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut474PV .
Agency No. _____.
Temporary No. ULS 13 .

1. Type of Locality: Invertebrate [ ] Plant [ X ] Vertebrate [ X ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene .

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops .

4. Location of Outcrop: North and south sides of Sheep Creek .

5. Map Ref.: U.S.G.S. Quad. Mill Fork, UT , Scale 7.5 Min., Edition 1967 .

(A) SW1/4 of NW1/4 of NW/4 of SE1/4 and
(B) NW1/4 of NE1/2 of SW1/4 of SW1/4 of Section 36 , T. 9 S. , R. 6 E. , Meridian Salt Lake

UTM Grid Zone: 12 S , (A) 0472979 m E 4426294 m N
, (B) 0472388 m E 4425996 m N

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork .

7. Specimens Observed/Collected: (A) Plant fragment impressions, rock with bird bone fragment and impression, (B) occasional fish scales .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: _____.

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: A. Hamblin .

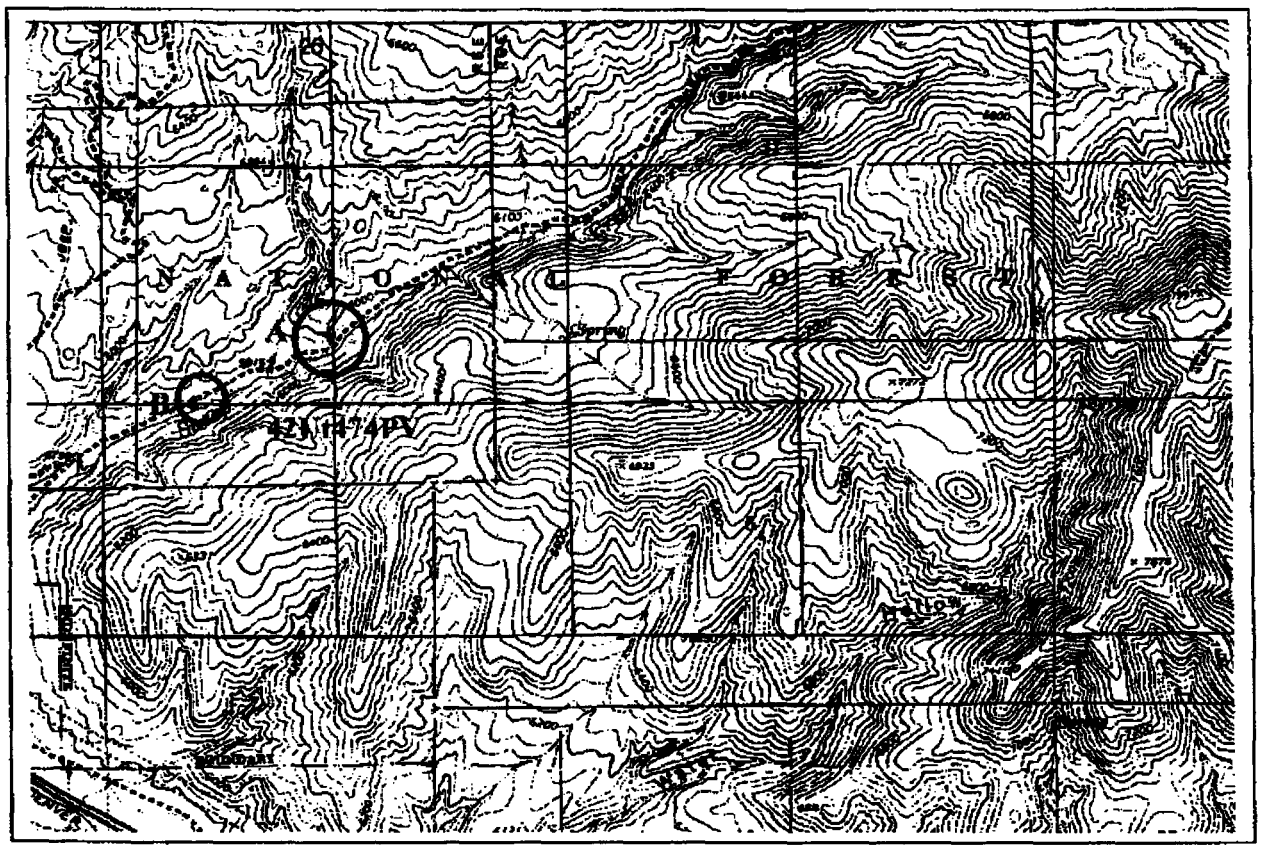
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: May 29, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut474PV
Mill Fork, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Ut475P .
Agency No. _____.
Temporary No. ULS 14 _____.

1. Type of Locality: Invertebrate [ ] Plant [ X ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation, Eocene _____.

3. Description of geology and Topography: Mountainous, vegetated, intermittent outcrops _____.

4. Location of Outcrop: Just north of power pole on south facing point above Syar Tunnel _____.

5. Map Ref.: U.S.G.S. Quad. Ray's Valley, UT , Scale 7.5 Min., Edition 1998 _____.

N 1/4 of SE1/4 of SE1/4 of NWE1/4 of Section 18 , T. 8 S. , R. 6 E. , Meridian Salt Lake .

UTM Grid Zone: 12 S , _____ 0474107 m E _____ 4440878 mN

6. County: Utah , BLM/USFS District: Uinta National Forest - Spanish Fork _____.

7. Specimens Observed/Collected: Leaf fragments in a hard platy limestone/shale _____.

8. Collector: _____ NA _____ Date: _____.

9. Repository/Accession No.s: NA _____.

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None _____.

12. Type of Map made by Recorder: Attached _____.

13. Disposition of Photos/Negatives: None _____.

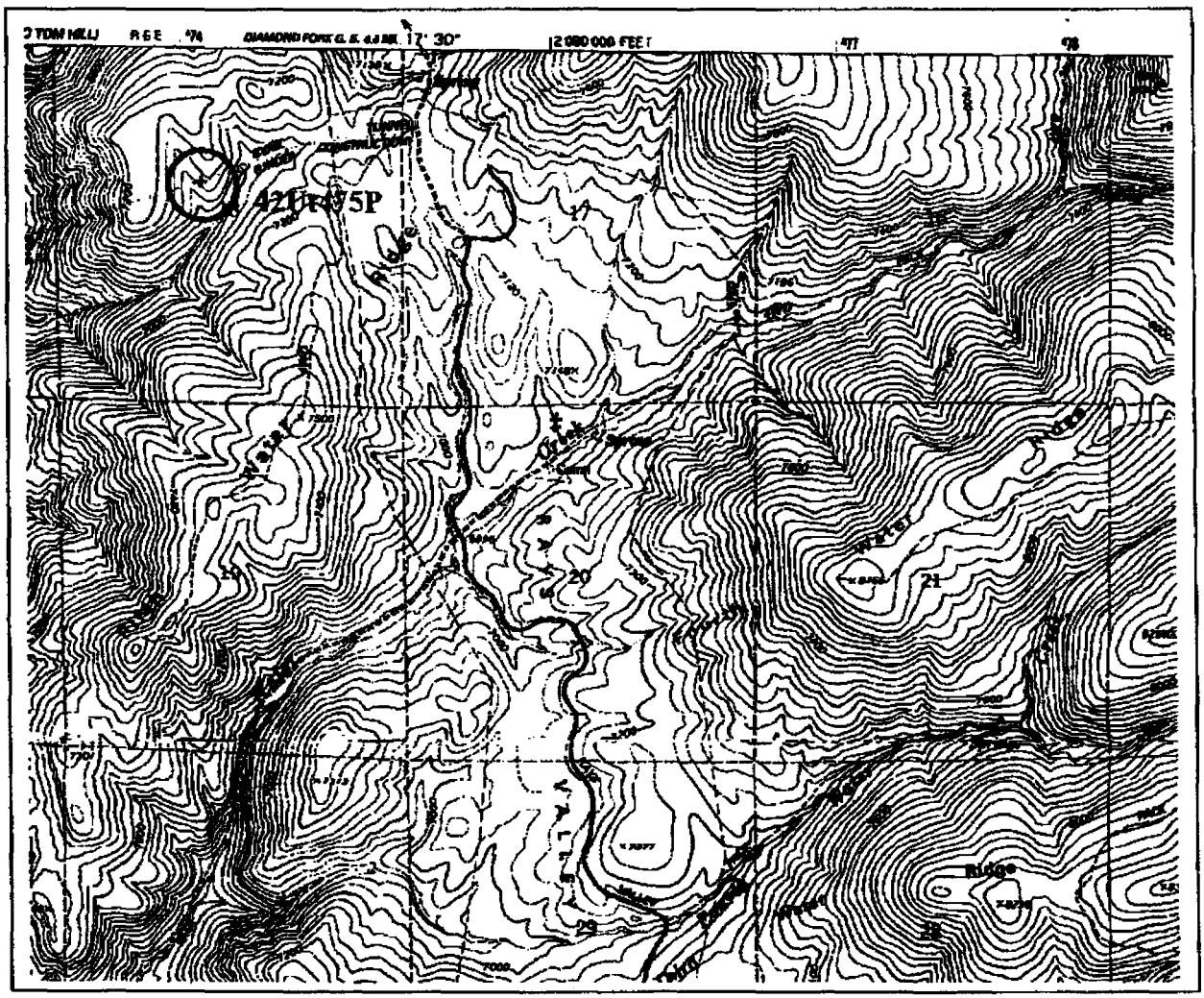
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin _____ Date: June 4, 2003 _____.

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Ut475P
Ray's Valley, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa57IP .
Agency No. _____.
Temporary No. ULS 15 .

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Green River Formation*, upper member, Eocene .

3. Description of geology and Topography: Round hills and gulleys, vegetated, intermittent outcrops.

4. Location of Outcrop: West Side of Strawberry Reservoir along road 131, small slump in road cut.

5. Map Ref.: U.S.G.S. Quad. Strawberry Reservoir NW, UT Scale 7.5 Min., Edition 1998 .

Center of W1/2 of W1/2 of NW1/4 of Section 1 , T. 4 S., R. 12 W., Meridian: Uinta Basin .

UTM Grid Zone: 12 S , 483265 m E 4445933 m N

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Thinly bedded brown-gray shale with occasional plant impressions and several possible gnat sized insects .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: If pipeline construction goes through this area, a paleontologist should spot check for additional better specimens .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: _____.

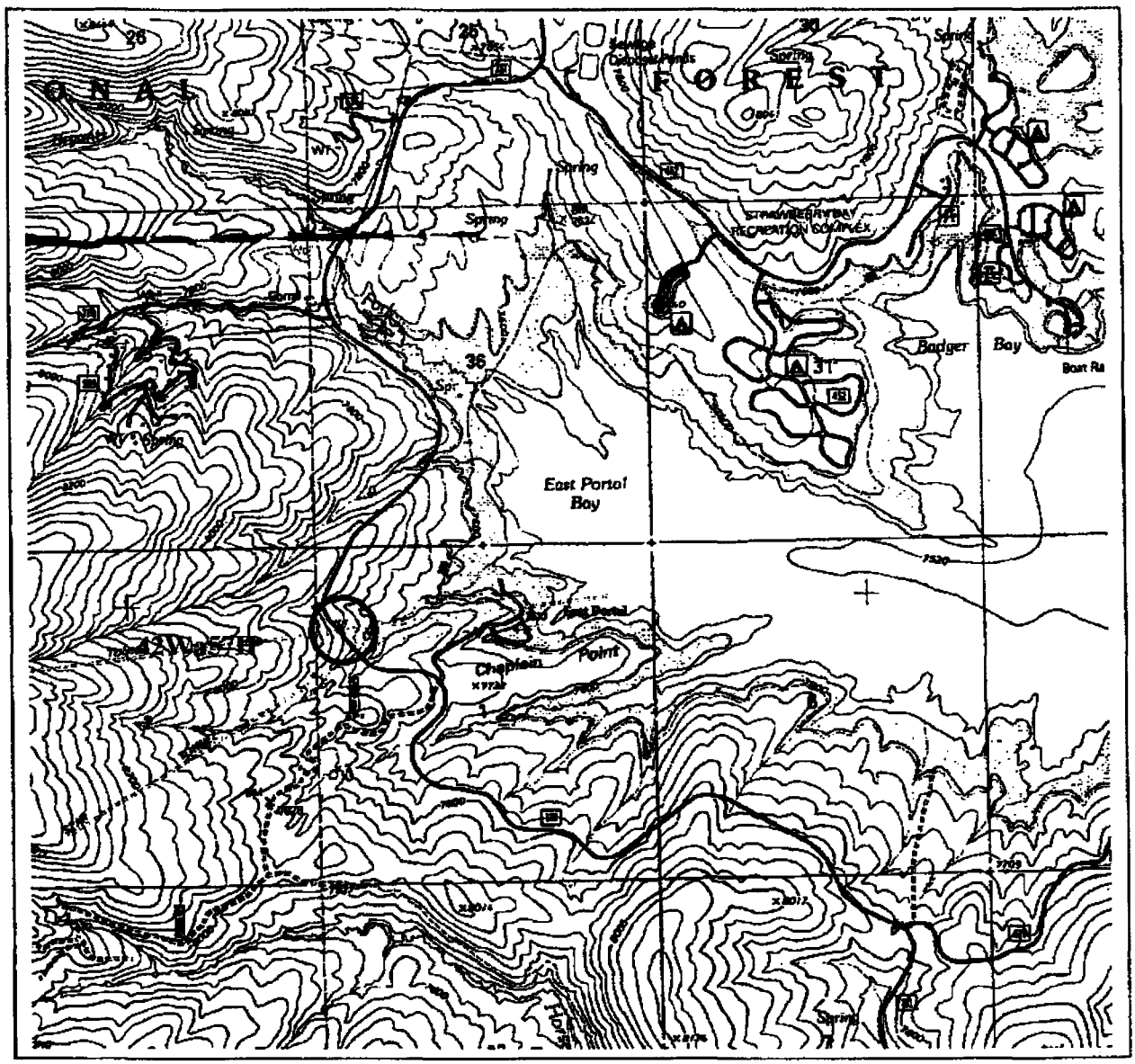
14. Published References: _____.

15. Remarks: *Bryant in UGS Map I-1997(1992) calls this Duchesne River Formation, Constenius and Coogan in their UGS Open-File Report 400 for the Geologic Map of the Provo 30'X60' Quadrangle (2002) refer to it as upper member of the Green River Formation .

16. Sensitivity: Critical [ ] (Class1) Significant [ ?] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 1, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa57IP
Strawberry Reservoir NW Quadrangle Utah
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa58IP .
Agency No. _____.
Temporary No. ULS 16 .

1. Type of Locality: Invertebrate [ X ] Plant [ X ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Uinta Formation*, Eocene .

3. Description of geology and Topography: Round hills and gulleys, vegetated, intermittent outcrops.

4. Location of Outcrop: Strawberry Reservoir area, east road 131, small slump on hillside .

5. Map Ref.: U.S.G.S. Quad. Strawberry Reservoir NW, UT Scale 7.5 Min., Edition 1998 .

W1/2 of NW1/4 of NW1/4 of SE1/4 of Section 12 , T. 3 S., R. 12 W., Meridian: Uinta Basin .

UTM Grid Zone: 12 S , 484128 m E 4453475 m N

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Tiny gastropods in gray clay/shale, and plant fragments in gray sandstone or ash .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[ ] BLM[ ] USFS[ X] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: None .

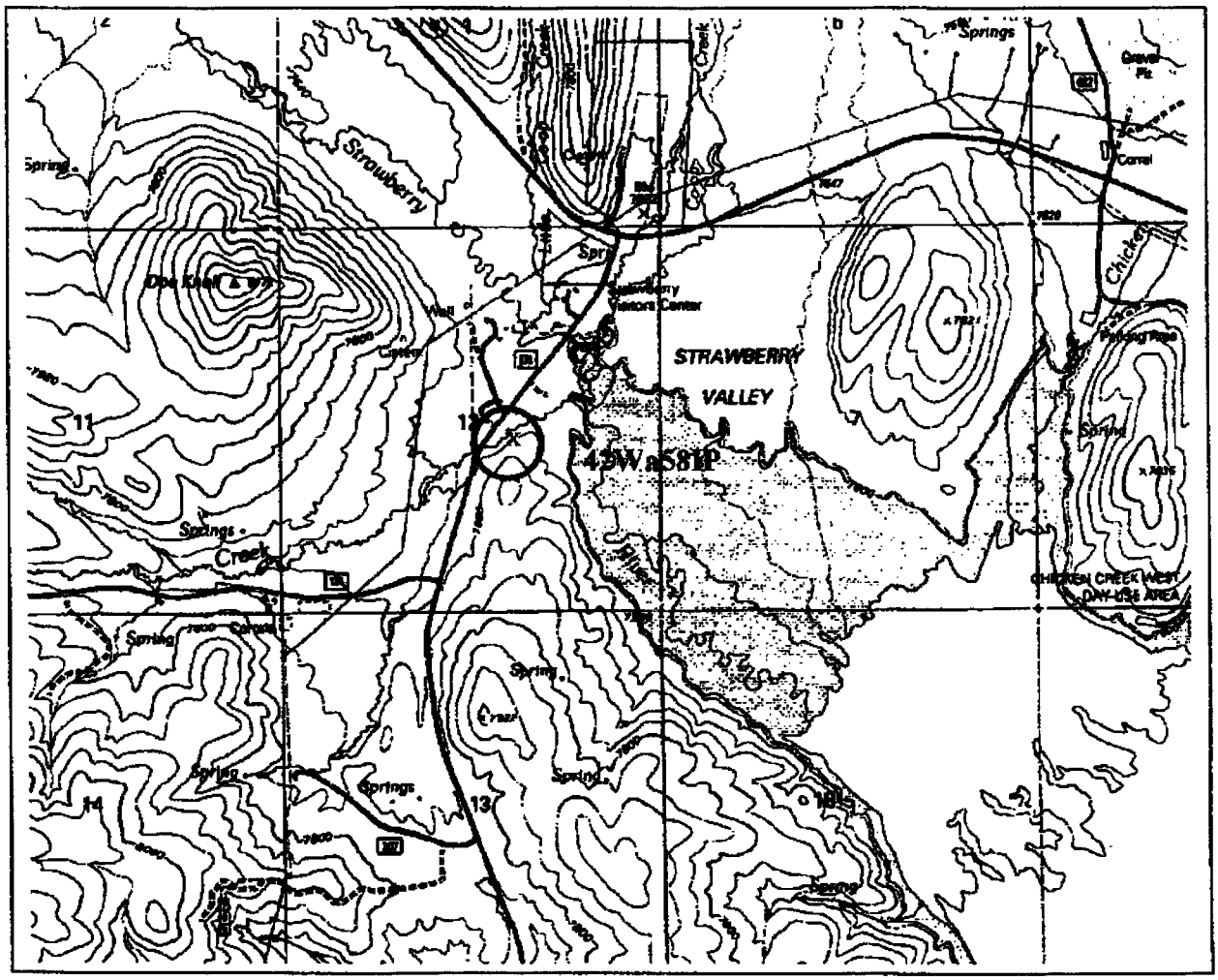
14. Published References: _____.

15. Remarks: *Bryant in UGS Map I-1997(1992) calls this Duchesne River Formation, Constenius and Coogan in their UGS Open-File Report 400 for the Geologic Map of the Provo 30'X60' Quadrangle (2002) refer to it as Uinta Formation .

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 1, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa58IP
Strawberry Reservoir NW Quadrangle Utah
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa59IT .
Agency No. _____.
Temporary No. ULS 17 .

1. Type of Locality: Invertebrate [ X ] Plant [ ] Vertebrate [ ] Trace [X ] Other [ ]

2. Formation/Horizon/Geologic Age: Oquirrh Formation, Granger Mountain Mem. Lower Permian .

3. Description of geology and Topography: Mountainous, steep slopes, intermittent outcrops .

4. Location of Outcrop: East side of US40, road cut, upper Daniels Canyon .

5. Map Ref.: U.S.G.S. Quad. Twin Peaks, UT Scale 7.5 Min., Edition 1998 .

SW1/4 of SE1/4 of NE1/4 of SW1/4 of Section 10 , T. 6 S., R. 6 E., Meridian: Salt Lake .

UTM Grid Zone: 12 S , 478188 m E 4461959 m N

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Invertebrate burrows, Fusulinids, crinoids and brachiopods in gray limestone .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[UDOT ROW] BLM[ ] USFS[ X] NPS[ ] IND[ ] MIL[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: None .

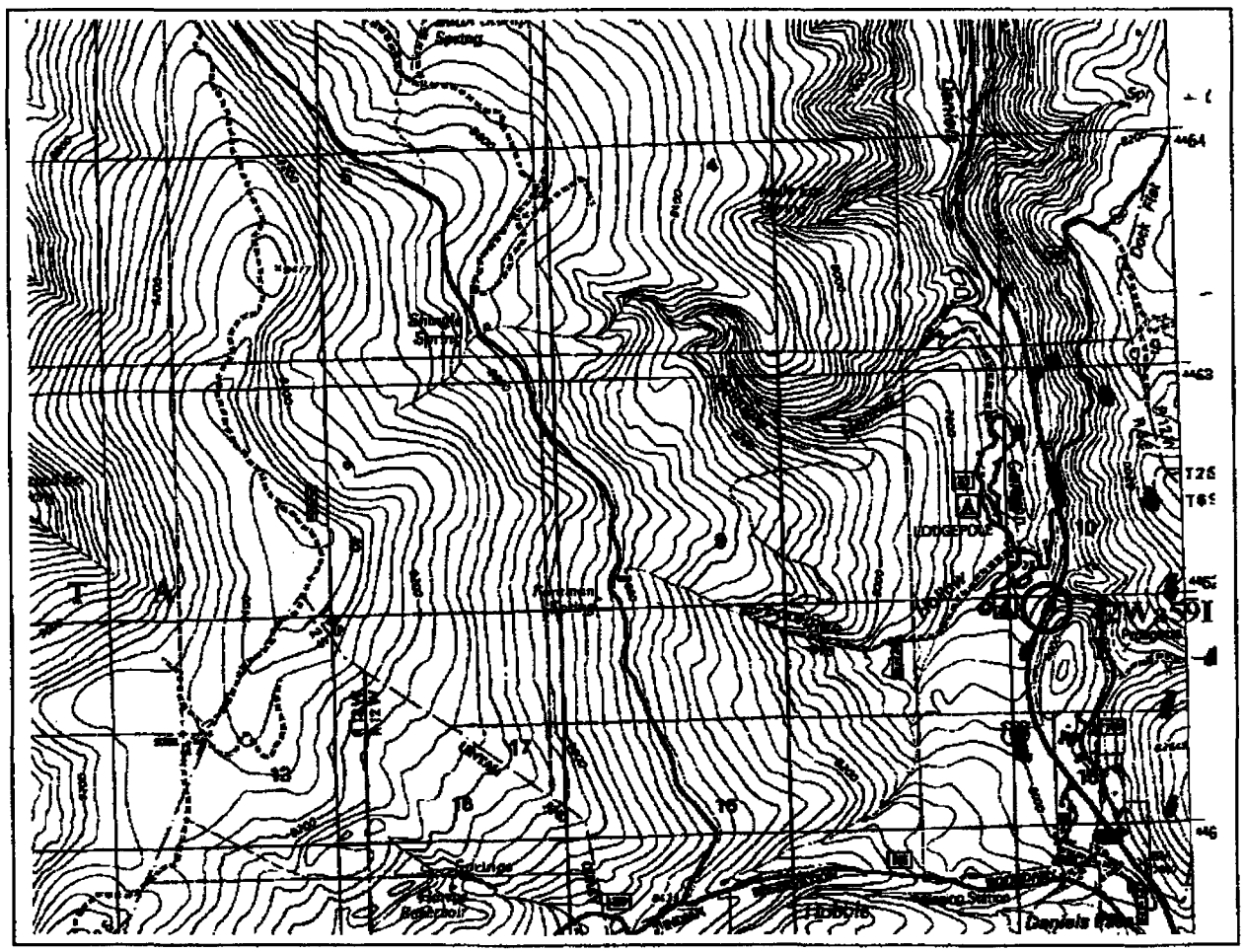
14. Published References: Austin, 1977, BYU Geology Studies, v. 24, pt. 1, p. 15. .

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 11, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa59IT
Twin Peaks, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa60I .
Agency No. _____.
Temporary No. ULS 18 .

1. Type of Locality: Invertebrate [ X ] Plant [ ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Oquirrh Formation, Granger Mountain Mem. Lower Permian .

3. Description of geology and Topography: Mountainous, steep slopes, intermittent outcrops .

4. Location of Outcrop: East side of US40, road cut, upper Daniels Canyon .

5. Map Ref.: U.S.G.S. Quad. Twin Peaks, UT Scale 7.5 Min., Edition 1998 .

of E1/2 of SE1/4 of NW1/4 of Section 10 , T. 6 S., R. 6 E., Meridian: Salt Lake .

UTM Grid Zone: 12 S , 478225 m E 4462441 m N
, 478200 m E 4462532 m N

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Fusulinids, and brachiopods in gray limestone .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[UDOT ROW] BLM[ ] USFS[ X] NPS[ ] IND[ ] MIL[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: None .

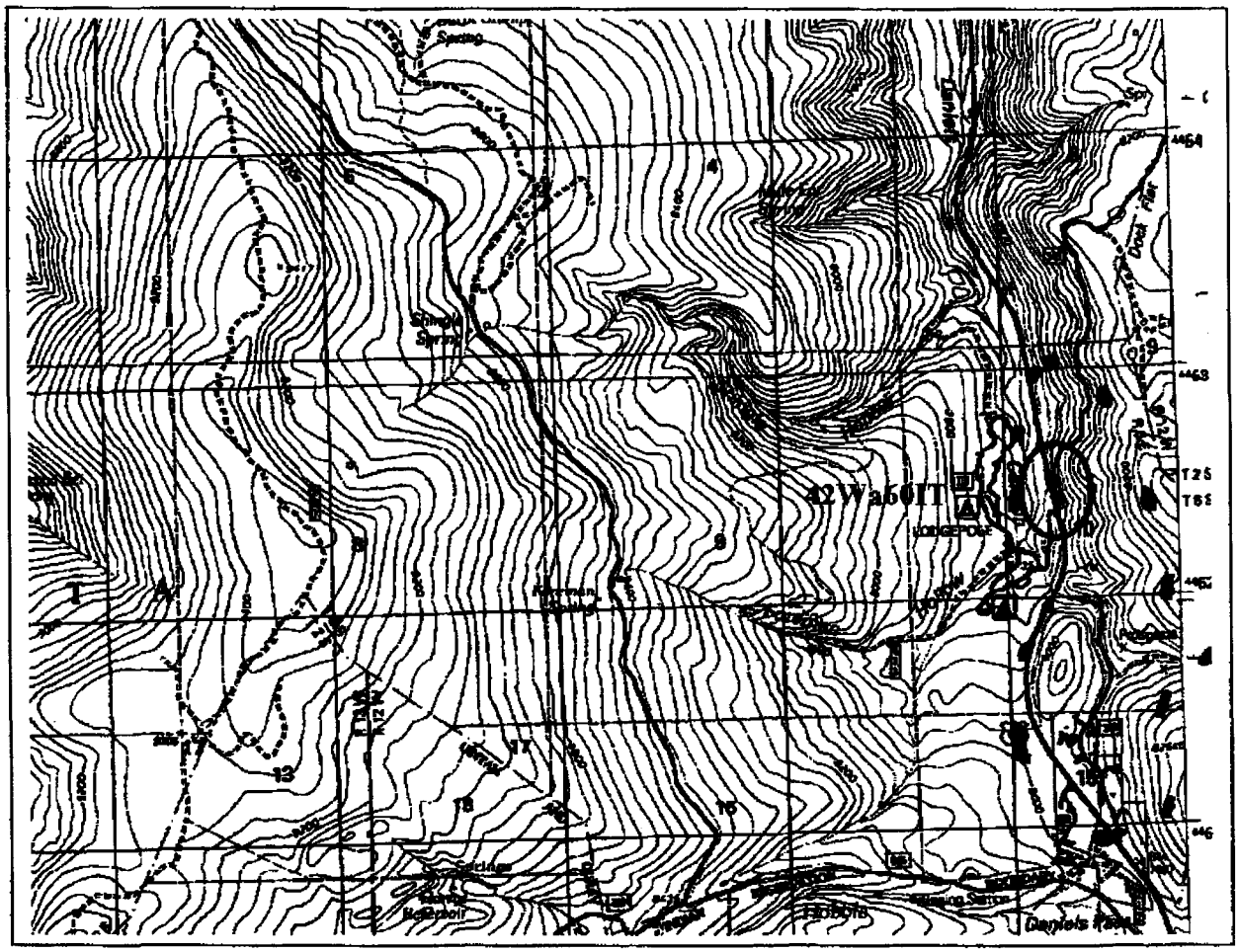
14. Published References: Austin, 1977, BYU Geology Studies, v. 24, pt. 1, p.15 .

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 11, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa60IT
Twin Peaks, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa61I .
Agency No. _____.
Temporary No. ULS 19 .

1. Type of Locality: Invertebrate [ X ] Plant [ ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Oquirrh Formation, Granger Mountain Mem. Lower Permian .

3. Description of geology and Topography: Mountainous, steep slopes, intermittent outcrops .

4. Location of Outcrop: East side of US40, road cut, upper Daniels Canyon .

5. Map Ref.: U.S.G.S. Quad. Twin Peaks, UT Scale 7.5 Min., Edition 1998 .

S1/2 of NW1/4 of SE1/4 of SW1/4 of Section 3 , T. 6 S., R. 6 E., Meridian: Salt Lake .

UTM Grid Zone: 12 S , 478060 m E 4463227 m N

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Bryozoan, possible sponges?, fusulinids, brachiopods? .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[UDOT ROW] BLM[ ] USFS[ X] NPS[ ] IND[ ] MIL[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: None .

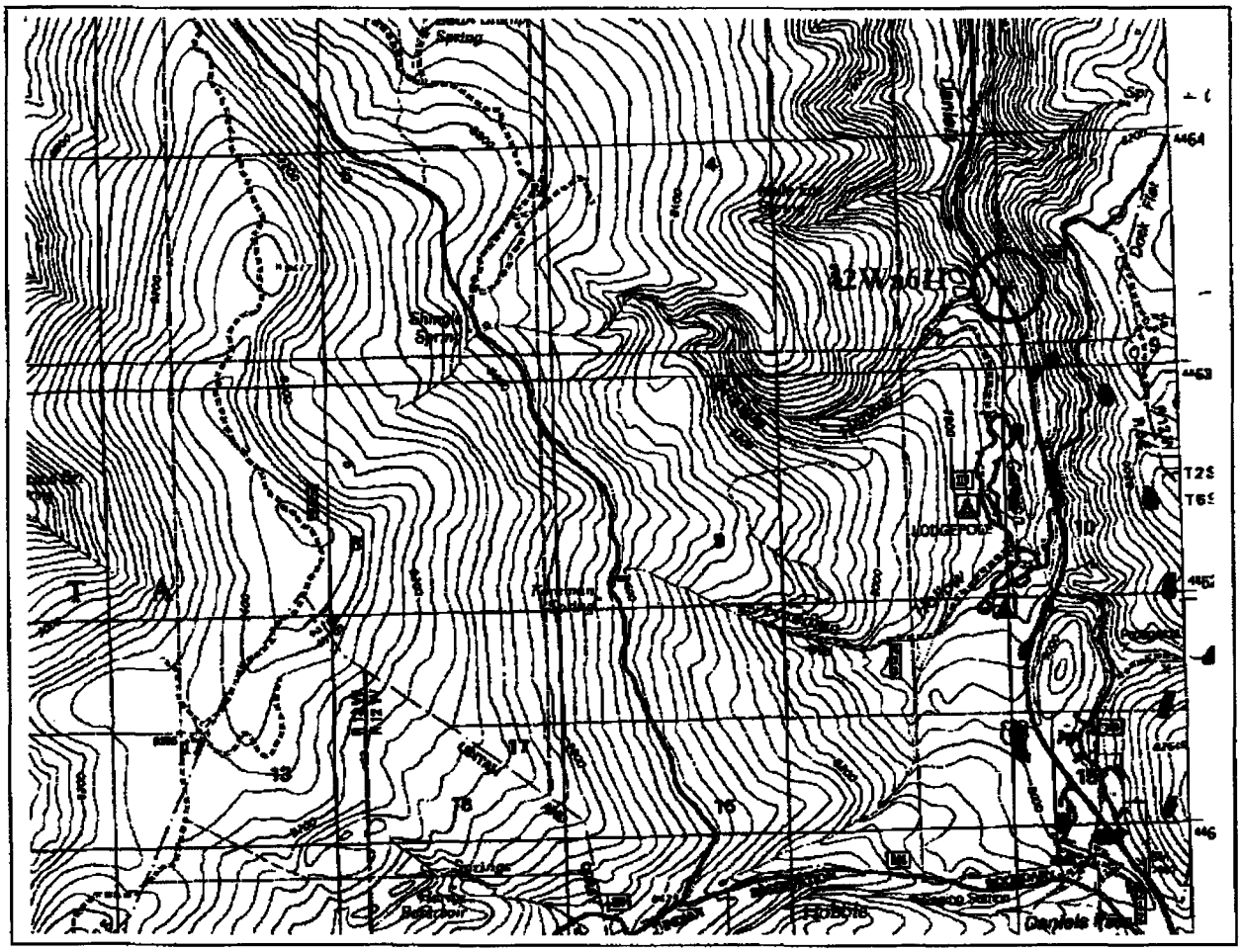
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 11, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa61I
Twin Peaks, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa62I .
Agency No. _____.
Temporary No. ULS 20 .

1. Type of Locality: Invertebrate [ X ] Plant [ ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Oquirrh Formation, Granger Mountain Mem. Lower Permian .

3. Description of geology and Topography: Mountainous, steep slopes, intermittent outcrops .

4. Location of Outcrop: East side of US40, road cut, upper Daniels Canyon .

5. Map Ref.: U.S.G.S. Quad. Twin Peaks, UT Scale 7.5 Min., Edition 1998 .

E1/2 of E1/2 of SW1/4 of NW1/4 of Section 3 , T. 6 S., R. 6 E., Meridian: Salt Lake .

UTM Grid Zone: 12 S , 477895 m E 4464105 m N

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Fusulinids .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[UDOT ROW] BLM[ ] USFS[ X] NPS[ ] IND[ ] MIL[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: None .

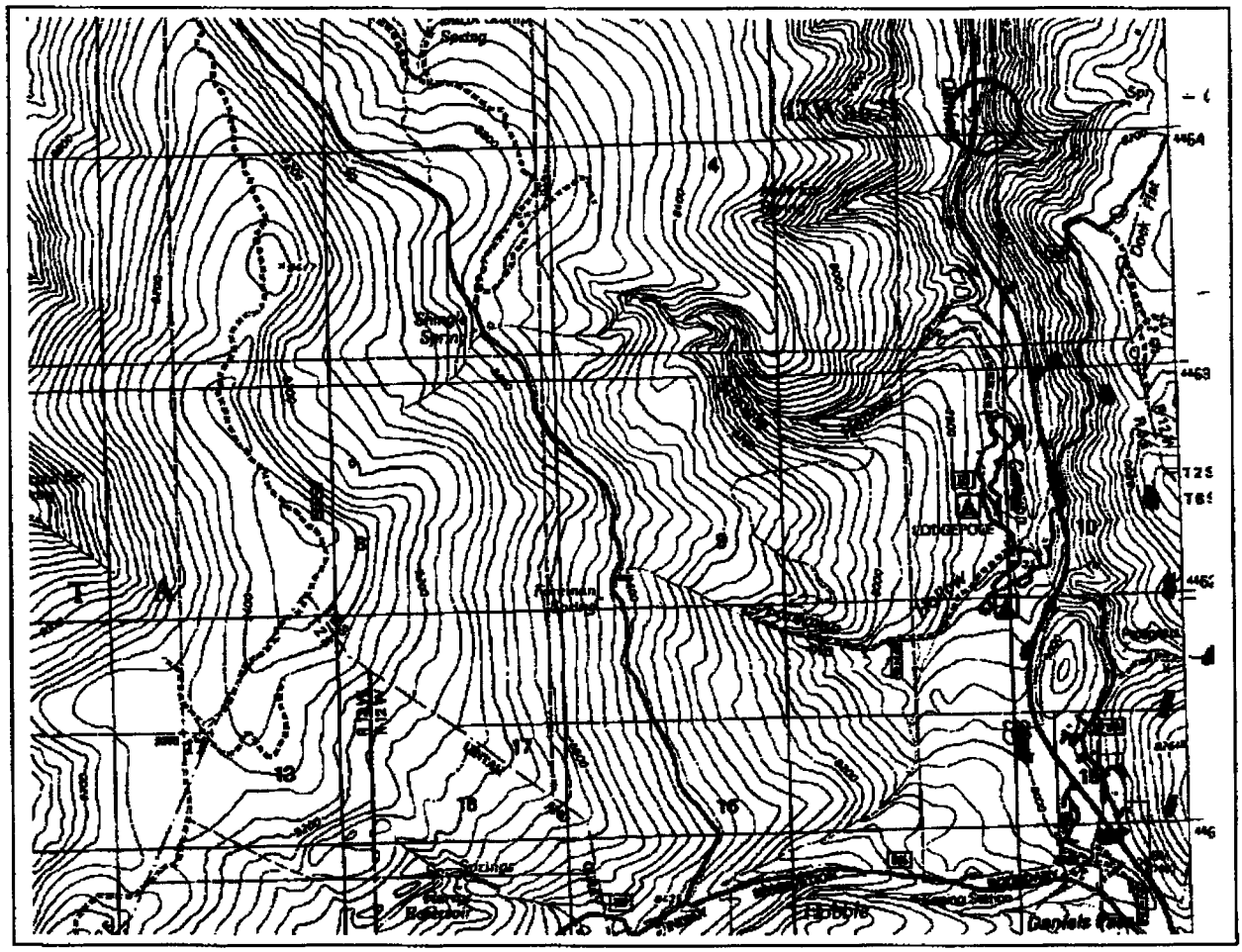
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 11, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa62I
Twin Peaks, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa63T .
Agency No. _____.
Temporary No. ULS 21 .

1. Type of Locality: Invertebrate [ ] Plant [ ] Vertebrate [ ] Trace [X ] Other [ ]

2. Formation/Horizon/Geologic Age: Oquirrh Formation, near contact between Granger Mountain Mem. (Lower Permian) and Wallsburge Ridge Mem. Upper Pennsylvanian .

3. Description of geology and Topography: Mountainous, steep slopes, intermittent outcrops .

4. Location of Outcrop: East side of US40, road cut, middle Daniels Canyon .

5. Map Ref.: U.S.G.S. Quad. Twin Peaks, UT Scale 7.5 Min., Edition 1998 .

SE1/4 of NE1/4 of SE1/4 of NW1/4 of Section 20 , T. 5 S., R. 6 E., Meridian: Salt Lake .

UTM Grid Zone: 12 S , 475087 m E 4468983 m N

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Large, steeply inclined bed or slab of limestone with numerous invertebrate traces - burrows .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[UDOT ROW] BLM[ ] USFS[ X] NPS[ ] IND[ ] MIL[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: A. Hamblin .

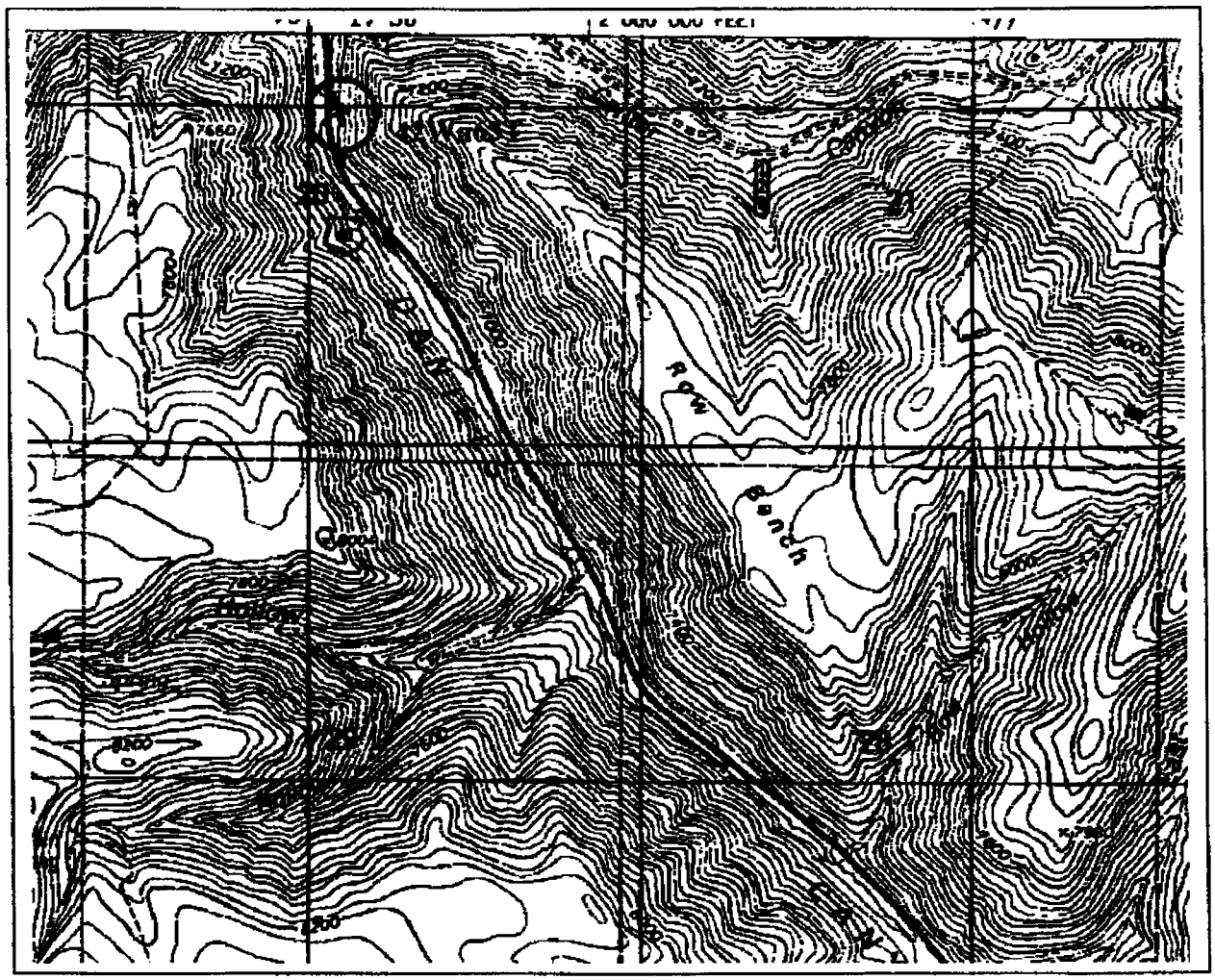
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 12, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.



Paleontology Locality 42Wa63T
Twin Peaks, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa64PT .
Agency No. _____.
Temporary No. ULS 22 .

1. Type of Locality: Invertebrate [ ] Plant [ ? ] Vertebrate [ ] Trace [ X ] Other [ ]

2. Formation/Horizon/Geologic Age: Oquirrh Formation, Wallsburg Ridge Mem., Upper Pennsylvanian.

3. Description of geology and Topography: Mountainous, steep slopes, intermittent outcrops.

4. Location of Outcrop: Northeast side of US40, middle Daniel Canyon.

5. Map Ref.: U.S.G.S. Quad. Center Creek, UT Scale 7.5 Min., Edition 1998 .

of Center of NW1/4 of SW1/4 of Section 17 , T. 5 S., R. 6 E., Meridian: Salt Lake .

UTM Grid Zone: 12 S , 474576 mE 4469991 m N

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Invertebrate trace fossils, and what appear to be plant impressions.

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA.

10. Ownership: PRIV[ ] STATE[UDOT ROW] BLM[ ] USFS[ X] NPS[ ] IND[ ] MIL[ ]

11. Recommendations for Further Work or Mitigation: None.

12. Type of Map made by Recorder: Attached.

13. Disposition of Photos/Negatives: None.

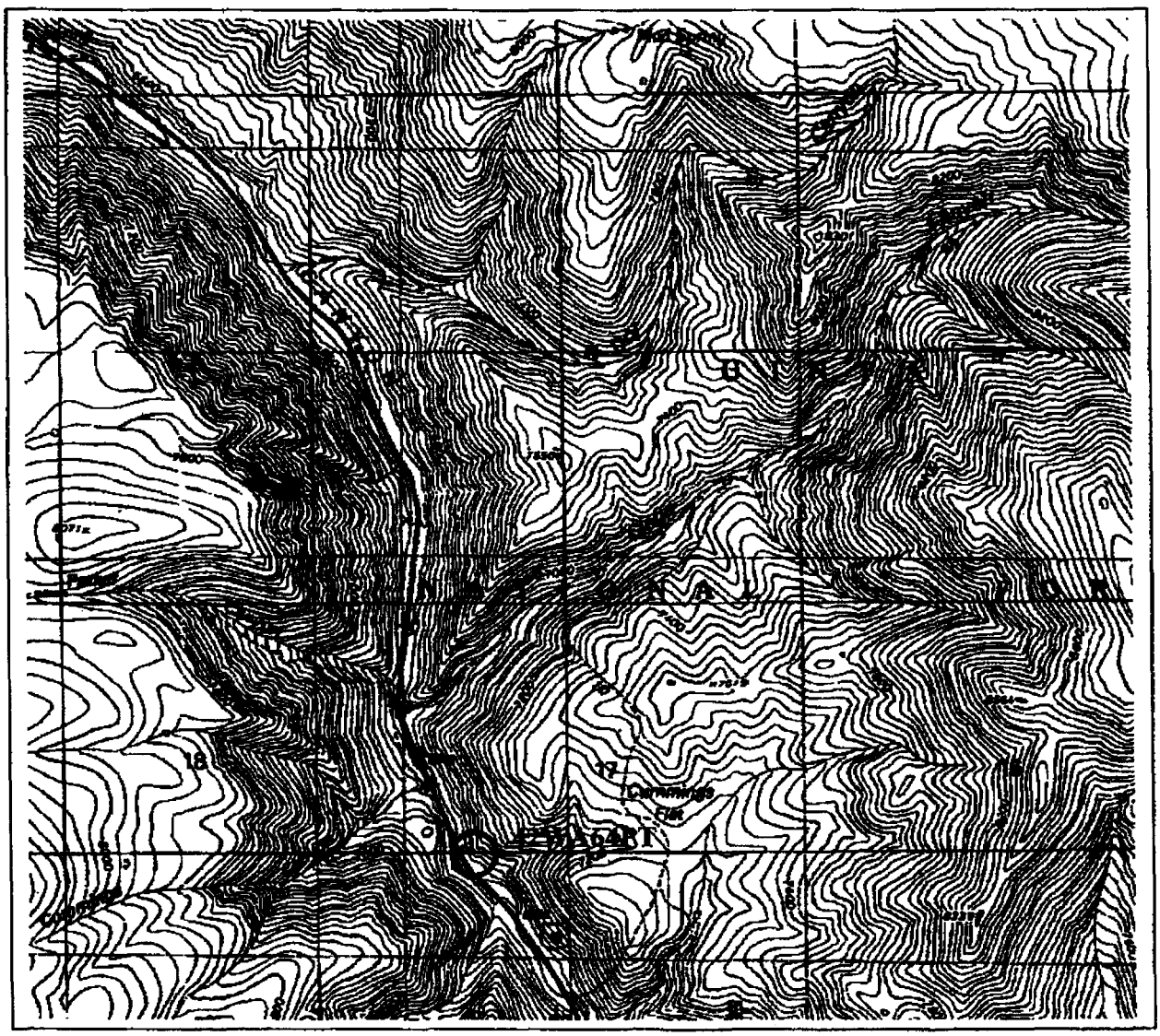
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 12, 2003.

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa64PT
Center Creek, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa65I .
Agency No. _____.
Temporary No. ULS 23 .

1. Type of Locality: Invertebrate [ X ] Plant [ ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Oquirrh Formation, Wallsburg Ridge Mem., Upper Pennsylvanian .

3. Description of geology and Topography: Mountainous, steep slopes, intermittent outcrops .

4. Location of Outcrop: Mouth of Cummings Canyon northwest to Clegg Canyon, Mid Daniel Cyn.

5. Map Ref.: U.S.G.S. Quad. Center Creek, UT Scale 7.5 Min., Edition 1998 .

of W1/2 of W1/2 of W1/2 of Section 17 , T. 5 S., R. 6 E., Meridian: Salt Lake .

UTM Grid Zone: 12 S , sites between 474440 mE 4470260 m N
And 474362 mE 4470918 m N

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Horn Corals, fusulinids and brachiopods .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ ] STATE[UDOT ROW] BLM[ ] USFS[ X] NPS[ ] IND[ ] MIL[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: None .

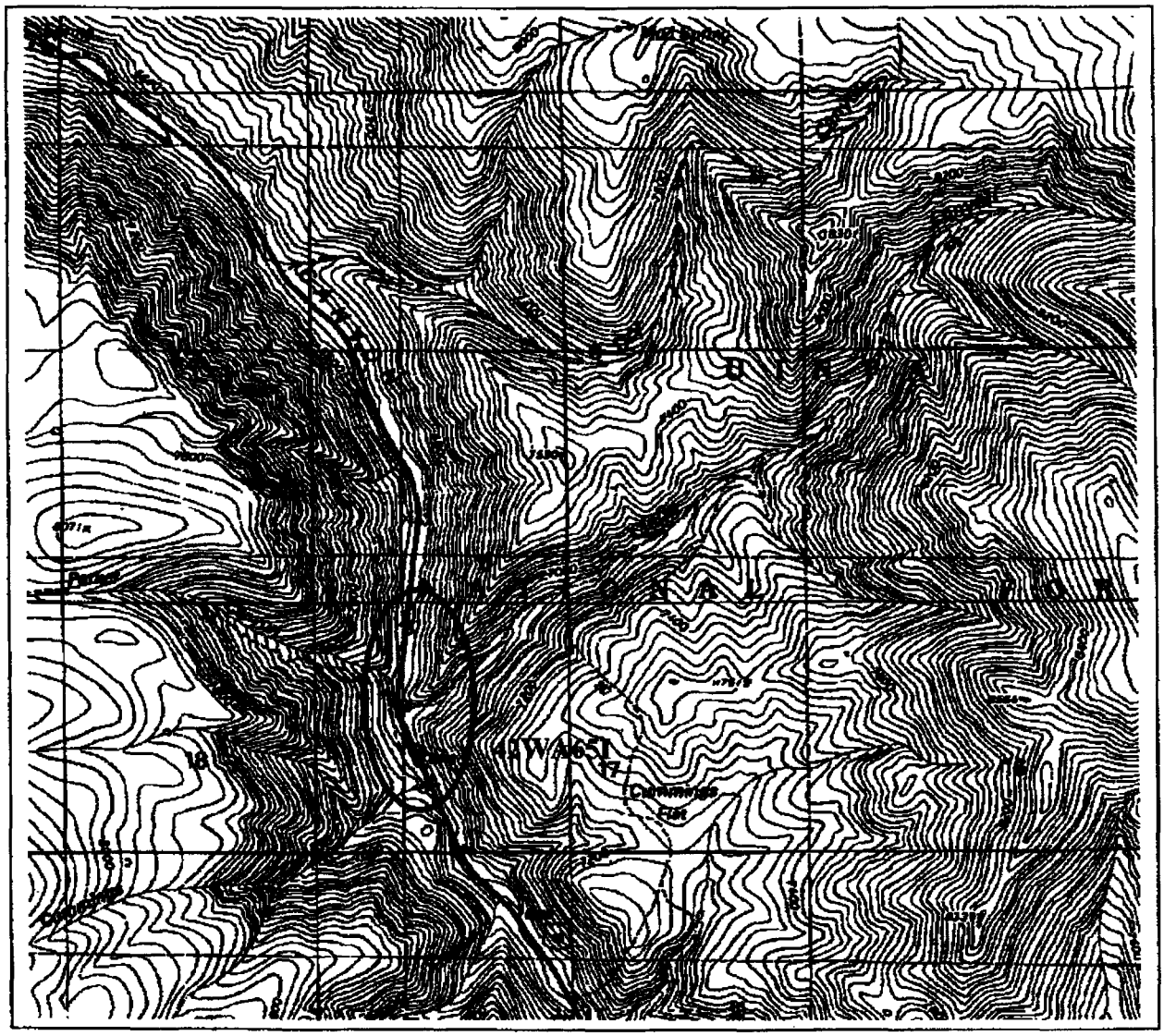
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 12, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa65I
Center Creek, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa66I .
Agency No. _____.
Temporary No. ULS 24 .

1. Type of Locality: Invertebrate [ X ] Plant [ ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Oquirrh Formation, Wallsburg Ridge Mem., Upper Pennsylvanian.

3. Description of geology and Topography: Mountainous, steep slopes, intermittent outcrops .

4. Location of Outcrop: North of US40, on a south slope (dip slope), west of small draw, on and NE of mine dump, lower Daniels Canyon.

5. Map Ref.: U.S.G.S. Quad. Center Creek, UT Scale 7.5 Min., Edition 1998 .

Center of E1/2 of NE1/4 of SE1/4 of Section 27 , T. 4 S., R. 5 E., Meridian: Salt Lake .

UTM Grid Zone: 12 S , sites between 469671 mE 4476490 m N.

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Brachiopods and crinoids .

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ X ] STATE[ ] BLM[ ] USFS[ ] NPS[ ] IND[ ] MIL[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: None .

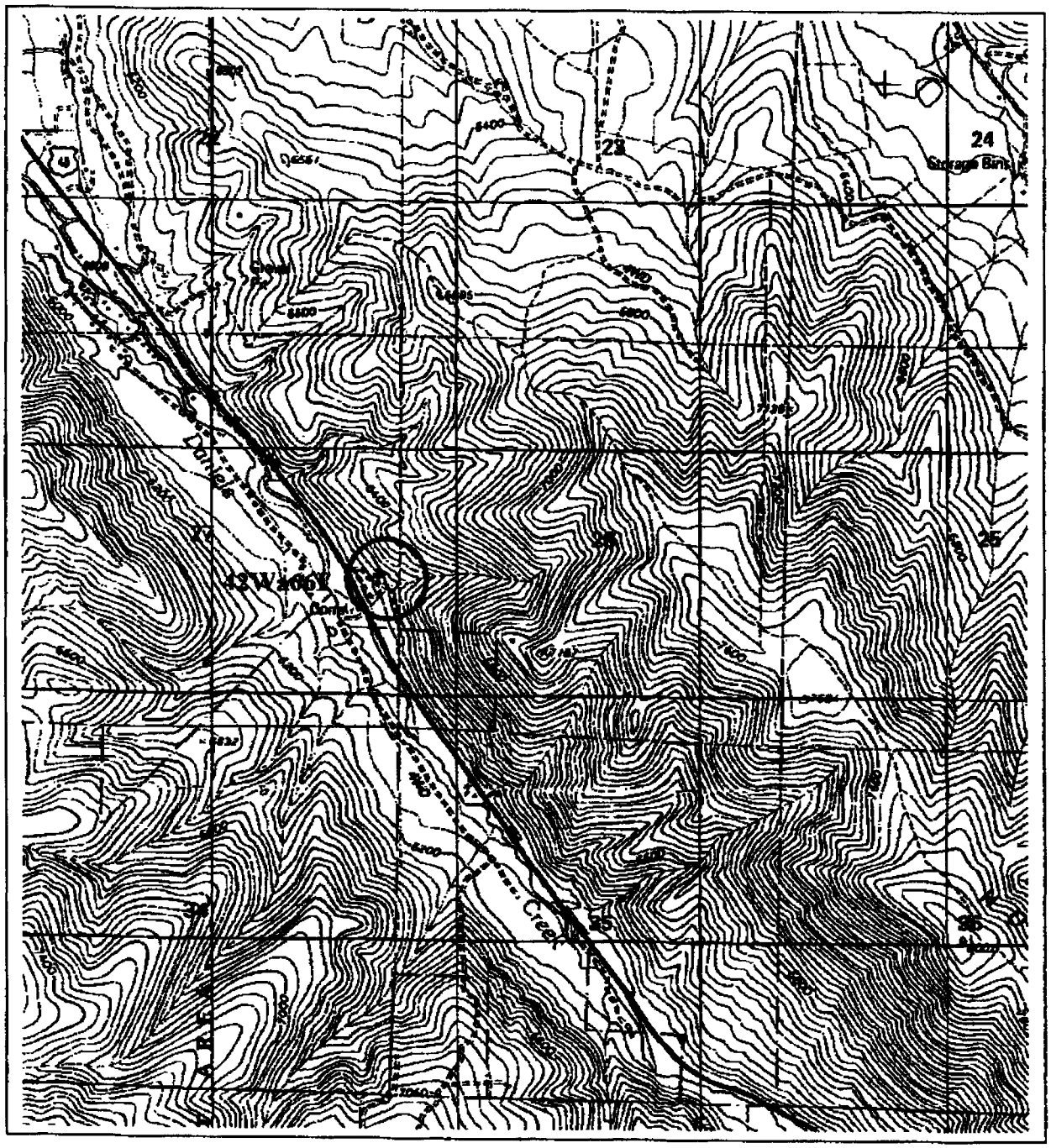
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Noteworthy [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 12, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa66I
Center Creek, Utah Quadrangle
[----------] Scale 1 mile

**Paleontology Locality**
**Data Sheet**

State Locality No. 42Wa67I .
Agency No. _____.
Temporary No. ULS 25 .

1. Type of Locality: Invertebrate [ X ] Plant [ ] Vertebrate [ ] Trace [ ] Other [ ]

2. Formation/Horizon/Geologic Age: Oquirrh Formation, Wallsburg Ridge Mem., Upper Pennsylvanian.

3. Description of geology and Topography: Mountainous, steep slopes, intermittent outcrops .

4. Location of Outcrop: North side of US40, road cut in lower Daniels Canyon .

5. Map Ref.: U.S.G.S. Quad. Center Creek, UT Scale 7.5 Min., Edition 1998 .

___of___of W1/2 of NE1/4 of Section 27 , T. 4 S., R. 5 E., Meridian: Salt Lake .

| UTM Grid Zone: 12 S , | (A) | 469235 | mE | 4476941 | m N. |
|---|---|---|---|---|---|
| , | (B) | 469088 | mE | 4477116 | m N |
| , | (C) | 469006 | mE | 4477201 | m N |

6. County: Wasatch , BLM/USFS District: Uinta National Forest- Heber .

7. Specimens Observed/Collected: Brachiopods, crinoids, corals, bryozoans and a layer of invertebrate fossil hash made up of the same.

8. Collector: NA Date: _____.

9. Repository/Accession No.s: NA .

10. Ownership: PRIV[ X ] STATE[UDOT ROW] BLM[ ] USFS[ ] NPS[ ] IND[ ] MIL[ ]

11. Recommendations for Further Work or Mitigation: None .

12. Type of Map made by Recorder: Attached .

13. Disposition of Photos/Negatives: None .

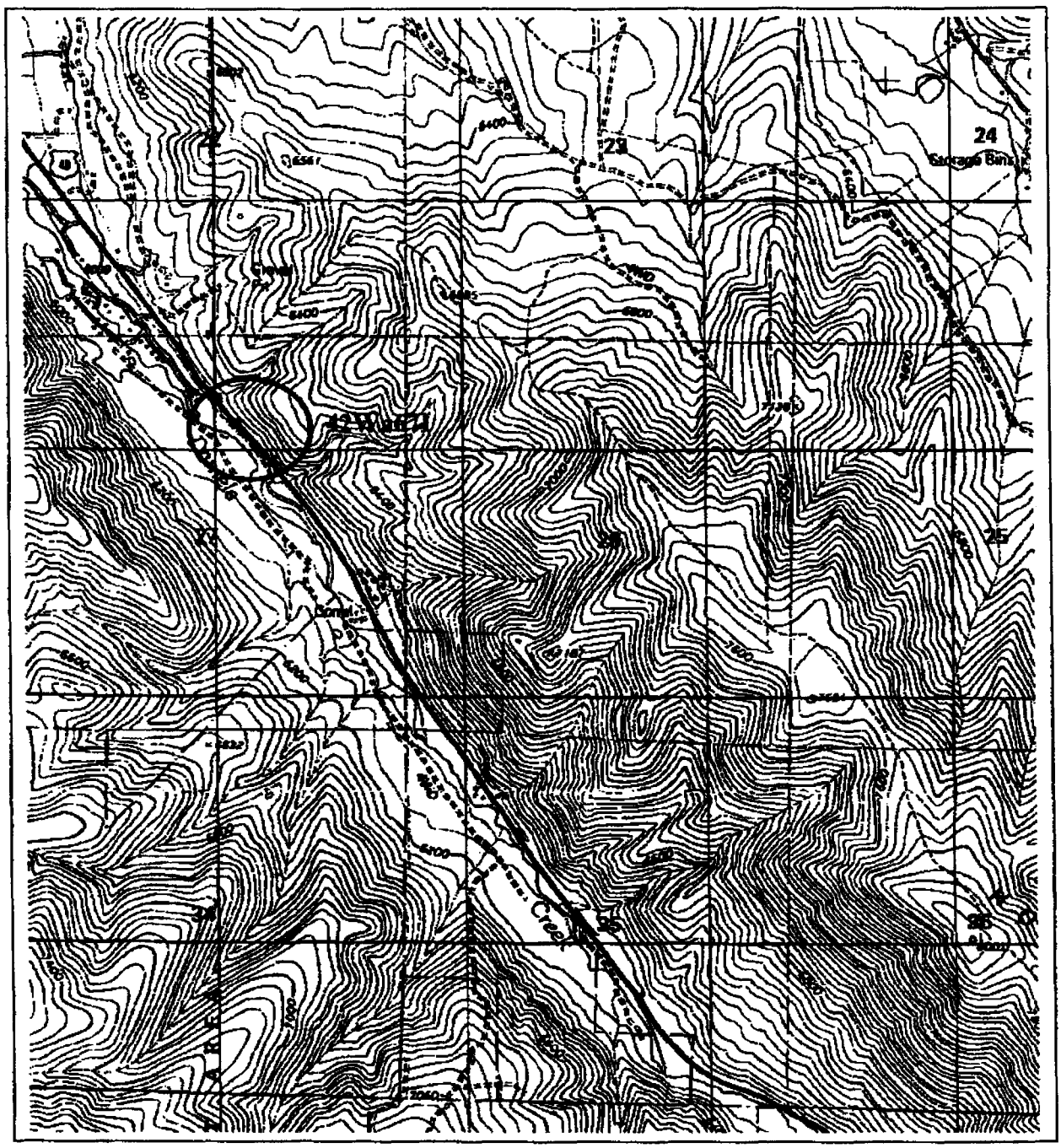
14. Published References: _____.

15. Remarks: _____.

16. Sensitivity: Critical [ ] (Class 1) Significant [ ] (Class 2) Important [ X ] (Class 3) Insignificant [ ] (Class 4) Unimportant [ ] (Class 5)

17. Recorded by: Alden H. Hamblin Date: June 12, 2003 .

18. Applicable Permit and License No.s: Utah Professional Geologist License– 5223011-2250.




Paleontology Locality 42Wa67I
Center Creek, Utah Quadrangle
[----------] Scale 1 mile

# Utah Lake Drainage Basin
# Water Delivery System
## Bonneville Unit, Central Utah Project

# Final
# Environmental Impact Statement

## *Appendix I*
## *DEIS Comment Letters*

# Jordan Valley Water Conservancy District

**David G. Ovard**, *CEO, General Manager, Secretary-Treasurer*
**Richard P. Bay**, *Assistant General Manager, Chief Engineer*
**Barton A. Forsyth**, *Assistant General Manager, Water Supply/Water Quality*

**Board of Trustees**
**Thomas W. Forsgren**, *Chair*
**Margaret K. Peterson**, *Vice Chair*
**Dale F. Gardiner**
**Royce A. Gibson**
**B. Jeff Rasmussen**
**Lyle C. Summers**
**Gary C. Swensen**
**Steven L. Taggart**

June 4, 2004

Mark Breitenbach, Project Manger
Central Utah Water Conservancy District
335 West University Parkway
Orem, Utah 84058-7303

Re: Comments on the Draft Environmental Impact Statement (DEIS) Prepared for Utah Lake Drainage Basin Water Delivery System (ULS)

Dear Mark:

The Jordan Valley Water Conservancy District appreciates the opportunity to comment on the DEIS for the ULS. Jordan Valley believes that the DEIS generally portrays the purposes and needs for the ULS in an accurate manner. Jordan Valley strongly supports the Preferred Alternative as the only alternative that meets the needs of its service area.

Comment No. 1

Jordan Valley affirms its need for the water to be allocated to it from ULS. While Jordan Valley appreciates the water that has been proposed to be made available to its service area, it is important to point out that less of Jordan Valley's future needs will be met by ULS water than that of any other of the petitioning entities. Based on generally accepted population and demand projections, Jordan Valley's service area shows a deficit of over 58,000 AF in its water supply by the year 2030 and 87,000 AF by the year 2050.

In spite of this, Jordan Valley accepts the allocations that have been proposed, namely, 30,000 AF to Southern Utah County and 30,000 AF to Salt Lake County, with 5/7 allocated to Jordan Valley and 2/7 to the Metropolitan Water District of Salt Lake & Sandy (MWDSLS). If for any reason, the water allocated under the DEIS to other petitioning agencies becomes available, Jordan Valley would like to enter into discussions and negotiations to receive this water. Any additional water would further accomplish the purposes of CUPCA (Public Law 102-575) to postpone development of the Bear River.

Comment No. 2

Jordan Valley acknowledges it will need to enter into agreements for the ULS water. Jordan Valley is willing to enter into contract negotiations immediately.

8215 South 1300 West ♦ P.O. Box 70 ♦ West Jordan, Utah 84088-0070 ♦ Phone (801) 565-4300 ♦ Fax (801) 565-4399

JORDAN VALLEY WATER CONSERVANCY DISTRICT

**TO: Mark Breitenbach**
**RE: Comments on the Draft Environmental Impact Statement**
**June 4, 2004**
**Page 2**

Comment No. 3

Jordan Valley acknowledges that there are environmental commitments to be met for the June Sucker recovery and minimum flows in the lower Provo River. Jordan Valley is willing to discuss how it can assist in meeting these commitments. Jordan Valley is willing to continue to work to make water available for these purposes from the Provo Reservoir Canal Enclosure Project or from other future water conservation projects.

Comment No. 4

1.2.1.2.2 (pg. 1-18) Jordan Valley has 20 member and contracting agencies rather than 21.

Comment No. 5

1.2.1.2.3 (pg. 1-20) Jordan Valley has 500,000 people within its legal boundaries but treats and delivers water for the MWDSLS which benefits approximately 300,000 additional people.

Sincerely,

David G. Ovard
CEO, General Manager

mp

**Town of Genola**
74 West 800 South
Genola, UT 84655
801-754-5300

June 10, 2004

Mark Breitenback, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, UT 84058

Subject: **Comments on the Draft Environmental Impact Statement, Utah Lake Drainage Basin Water Delivery System**

Dear Mark,

The Town of Genola hereby communicates its support of the preferred alternative (Spanish Fork Canyon – Provo Reservoir Canal Alternative), as presented in the EIS documents dated March 2004, for the further development of the Bonneville Unit of the Central Utah Project.

The residents of the Town of Genola have been anticipating water from the Central Utah Project for forty years and have paid millions of dollars in taxes to the District. The future of the Town of Genola depends upon access to water from the proposed pipeline.

In an effort to provide adequate water resources, the Town of Genola has consistently encouraged water conservation with the intent of reducing per-capita water use by twenty-five percent by the year 2050. Furthermore, Genola strives to discourage the wasting of water by use of a water rate structure that charges for excessive use. Even with conservation efforts, additional water is needed to provide for the current and future growth.

A review of water resources in South Utah County show that the preferred alternative discussed above is the only source of additional water for South Utah County including the Town of Genola.

Thank you for your thoughtful consideration.

Best regards,

W. Neil Brown
Mayor

**South Utah Valley Municipal Water Association**

**P.O. Box 412**
**Spanish Fork, Utah 84660**

June 9, 2004

Central Utah Water Conservancy District
Public Hearing
Utah Lake Drainage Basin Water Delivery System

To Whom It May Concern;

South Utah Valley Municipal Water Association would like to express the support for further development of the Bonneville Unit of the Central Utah Project, specifically the Utah Lake Drainage Basin Water Delivery System. SUVMWA supports the preferred alternative, Spanish Fork Canyon - Provo Reservoir Canal Alternative; as presented in the EIS documents dated March 2004.

SUVMWA has been anticipating water from the Central Utah Project for years. Several million dollars in taxes have been paid to the District by member SUVMWA city residents for more than 40 years.

SUVMWA has adopted a very aggressive water conservation program in an effort to provide adequate water resources. But, even with the conservation program there is a need for additional water in South Utah Valley.

The future of South Utah Valley is very much dependent on this additional water from Strawberry Reservoir. Many studies have been performed over the past several years and the 30,000 acre feet of CUP water discussed in the preferred alternative is the only additional source of water available to South Utah Valley.

Sincerely,

Dale Wills, Chairman
South Utah Valley Municipal Water Association

# SOUTH COUNTY MAYORS GROUP

**ELK RIDGE GENOLA GOSHEN MAPLETON PAYSON SALEM**
**SANTAQUIN SPANISH FORK SPRINGVILLE WOODLAND HILLS**

UNITY PRIDE VISION

June 8, 2004

Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058

Subject: Comments on the Draft Environmental Impact Statement
Utah Lake Drainage Basin Water Delivery System

Dear Mark,

The South County Mayors Group appreciates the opportunity to comment on the DEIS for the Utah Lake Drainage Basin Water Delivery System (ULS). As mayors of the ten cities involved, we support the Preferred Alternative that would provide 30,000 acre-feet of municipal water to the South Utah Valley Municipal Water Association (SUVMWA) for distribution to cities within south Utah County.

South Utah County is experiencing extremely high population growth. There are several large areas within south Utah County that currently have no water supply. As these lands are urbanized it will be necessary to provide water to them. The residents of the ten cities have been anticipating water from the Central Utah Project for 40 years, and have paid several million dollars in taxes to the District during that time. The cities are committed to conserving water supplies to extend the available local supplies as much as possible. In accordance with the State of Utah's Water Conservation goals, plans have been put in place by the cities. These will help us reduce our per-capita water use by 25% by the year 2050.

The ULS water would provide an important reliable source of good quality water for outdoor secondary use, allowing the cities to use their wells for culinary indoor use. As the population of south Utah County continues to grow, the cities will need additional water to meet the water needs of their citizens.

The future of south Utah County is very much dependant on this additional water from Strawberry Reservoir. Many studied have been performed over the past several years and the 30,000 acre-feet of CUP water discussed in the preferred alternative is the **only** additional source of water available to south Utah County.

Sincerely,

Mayor Randy A. Brailsford
Salem City
Chairman, South Utah County Mayors Group

MAYOR FRITZ MAYOR BROWN MAYOR CARTER MAYOR ALLAN MAYOR EVANS MAYOR BRAILSFORD MAYOR SCOVILL MAYOR BARNEY MAYOR BOYER MAYOR HARDING

Robert Bradshaw, City Aministrator
Mapleton City
Per Mayor Dean S. Allan

Mayor Dale R. Barney
Spanish Fork City

Mayor E. Fritz Boyer
Springville City

Mayor W. Neil Brown
Town of Genola

out of Town
Mayor Hoyt Carter
Town of Goshen

Mayor Bernell C. Evans
Payson City

Mayor Vernon L. Fritz
Elk Ridge Town

Mayor Toby M. Harding
Woodland Hills Town

Mayor A. LaDue Scovill
Santaquin City

Santaquin City

*freedom • family • friendship*

June 10, 2004

Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058

Subject: Comments on the Draft Environmental Impact Statement
Utah Lake Drainage Basin Delivery System

Dear Mark:

Santaquin City appreciates the opportunity to comment on the DEIS for the Utah Lake Drainage Basin Water Delivery System (ULS). Santaquin City supports the Preferred Alternative that would provide 30,000 acre-feet of municipal water to the South Utah Valley Municipal Water Association (SUVMWA) for distribution to cities within South Utah County. Santaquin City is a member of the SUVMWA.

Santaquin City is experiencing extremely high population growth. State of Utah population projections show growth in Santaquin City is expected to increase the City population by 500 percent over the next 30 years and 1,300 percent over the next 50 years. Large areas within the declaration boundary of the City are lands that currently have no water supply. As theses lands are urbanized, it will be necessary to drill additional wells and secure new water rights. The City is committed to conserving water supplies to extend the available local supply s much as possible. In 2004, the City submitted an application to the Section 207 Water Conservation Program for funding assistance with a secondary water system for the existing City lands. As lands are subdivided, the City plans to require developers to install secondary water lines to expand the City's secondary system to reduce unit water use and conserve water in accordance with the State or Utah's water conservation goal.

The ULS water would provide an important reliable source of good quality water for outdoor secondary use, allowing the City wells to be used for culinary indoor use. The ULS water could temporarily delay the drilling of some wells, however as the population continues to grow, the City would need additional wells to meet the water needs of its citizens. Even with The ULS water and wells, the City will still experience a water supply shortage before reaching its build-out population unless other sources of water are found. Water conservation will play an important role in reducing unit water use to extend the water supplies as much as possible, but will not prevent water shortages from occurring without the ULS water.

Sincerely,

A. LaDue Scovill
Mayor

*www.santaquin.org*

**OFFICE** (801) 754-3211 **FAX** (801) 754-3526 • 45 West 100 South • Santaquin, UT 84655

Mayor
Bernell C. Evans

Councilmembers
Burtis J. Bills
Brent Burdick
Bradly D. Daley
Colleen K. Jacobson
Larry D. Skinner

June 9, 2004

Mark Breithenbach, Project Director
Central Utah Water Conservancy District
355 West University Parkway
Orem UT 84058

Subject: Comments on the Draft Environment Impact Statement
Utah Lake Drainage Basin Water Delivery System

Dear Mark,

Payson City hereby goes on record as supporting the further development of the Bonneville Unit of the Central Utah Project, specifically the Utah Lake Drainage Basin Water Delivery System. Payson City supports the preferred alternative (Spanish Fork Canyon-Provo Reservoir Canal Alternative) as presented in the EIS documents dated March 2004 on file.

Payson City residents have been anticipating water from the Central Utah Project for 40 years. They have paid several million dollars in taxes to the District for the 40 years. Payson City has been planning the construction projects such as the Pressurized Irrigation System and the work with Highland Canal on the Lateral 20, that are designed to utilize CUP water from the proposed pipeline.

In an effort to provide adequate water resources Payson City has adopted a very aggressive water conservation program. The program includes a reduction in per-capita water use of 25% by the year 2050. Also included in that program is a graduated water rate structure that discourages excessive water use. Even with the conservation program there is a need for additional water in south Utah Valley.

The future of south Utah Valley is very much dependant on this additional water from Strawberry Reservoir. Many studies have been performed over the past several years and the 30, 000 acre-feet of CUP water discussed in the preferred alternative is the only additional source of water available to south Utah Valley including Payson City.

Thank you for your consideration,

Bernell C. Evans
Payson City Mayor

Payson City Corporation
439 West Utah Avenue, Payson, UT 84651 (801) 465-5200 Fax (801) 465-5208

# SPRINGVILLE CITY

June 10, 2004

Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, UT 84058

Subject: Comments on the Draft Environmental Impact Statement
Utah Lake Drainage Basin Water Delivery System

Dear Mark,

Springville supports the further development of the Bonneville Unit of the Central Utah Project, specifically the Utah Lake Drainage Basin Water Delivery System. Springville also supports the preferred alternative (Spanish Fork Canyon-Provo Reservoir Canal Alternative) as presented in the EIS documents dated March 2004.

Springville is in the process of developing a very aggressive water conservation program. The program includes a reduction in per-capita water use of 25% by the year 2050. Also included in that program we plan to establish a graduated water rate structure that discourages excessive water use.

Even with the conservation program there is a need for additional water in south Utah Valley. The future of south Utah Valley is very much dependent on additional water from Strawberry Reservoir. Many studies have been performed over the past several years and the 30,000 acre-feet of CUP water is the only additional source of water available for many south Utah Valley cities and towns.

Thank you for your consideration,

E. Fritz Boyer
Mayor

50 SOUTH MAIN • SPRINGVILLE, UTAH 84663 • 801-489-2700 • FAX 801-489-2709 • WWW.SPRINGVILLE.ORG

SPANISH FORK CITY

DALE R. BARNEY
MAYOR

Central Utah Water Conservancy District
Public Hearing
Utah Lake Drainage Basin Water Delivery System
April 29, 2004
Spanish Fork, Utah

Spanish Fork City hereby goes on record as supporting the further development of the Bonneville Unit of the Central Utah Project, specifically the Utah Lake Drainage Basin Water Delivery System. Spanish Fork City supports the preferred alternative (Spanish Fork Canyon-Provo Reservoir Canal Alternative) as presented in the EIS documents dated March 2004 on file.

Spanish Fork City residents have been anticipating water from the Central Utah Project for 40 years. They have paid several million dollars in taxes to the District for that 40 years. Spanish Fork City has been planning and constructing projects, including the installation of a $16,000,000 secondary irrigation system, that is designed to utilize CUP water from the proposed pipeline.

In an effort to provide adequate water resources Spanish Fork City has adopted a very aggressive water conservation program. The program includes a reduction in per-capita water use of 25% by the year 2050. Also included in that program is a graduated water rate structure that discourages excessive water use. Even with the conservation program there is a need for additional water in south Utah Valley.

The future of south Utah Valley is very much dependent on this additional water from Strawberry Reservoir. Many studies have been performed over the past several years and the 30,000 acre-feet of CUP water discussed in the preferred alternative is the **only** additional source of water available to south Utah Valley including Spanish Fork.

Thank you for your consideration.

Dale R. Barney

Dale R. Barney, Mayor
Spanish Fork City

40 SOUTH MAIN STREET • SPANISH FORK, UTAH 84660 • (801) 798-5000 • FAX (801) 798-5005

Mayor
Randy A. Brailsford

# Salem City Corporation

*"Modern Living in a Rural Setting"*

PRIDE UNITY VOLUNTEERISM

City Council
Lynn Durrant
Paul J. Hair
Terry A. Ficklin
Dale Boman
Dale R. Wills

June 8, 2004

Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058

Subject: Comments on the Draft Environmental Impact Statement
Utah Lake Drainage Basin Water Delivery System

Dear Mark,

Salem City hereby goes on record as supporting the further development of the Bonneville Unit of the Central Utah Project, specifically the Utah Lake Drainage Basin Water Delivery System. Salem City supports the preferred alternative (Spanish Fork Canyon-Provo Reservoir Canal Alternative) as presented in the EIS documents dated March 2004 on file.

Salem City residents have been anticipating water from the Central Utah Project for 40 years. They have paid several million dollars in taxes to the District during that 40 years. Salem City has been planning and constructing projects, such as requiring developers to install water lines for a secondary water system, that are designed to utilize CUP water from the proposed pipeline.

In an effort to provide adequate water resources Salem City has adopted a very aggressive water conservation program. The program includes a reduction in per-capita water use of 25% by the year 2050. Also included in that program is a graduated water rate structure that discourages excessive water use. Even with the conservation program there is a need for additional water in south Utah Valley.

The Highline Canal, that Salem City would get Strawberry Water from over the next 40 years, is more centrally located in our community to get water above the Highline. It is imperative that this project be completed to make sure that we have sufficient water above the Highline Canal to supply areas in our municipality that the Strawberry Highline Canal could not serve.

The future of south Utah County is very much dependant on this additional water from Strawberry Reservoir. Many studies have been performed over the past several years and the 30,000 acre-feet of CUP water discussed in the preferred alternative is the only additional source of water available to south Utah County including Salem City.

Thank you for your consideration.

Mayor Randy A. Brailsford
Salem City Corporation

30 West 100 South - P.O. Box 901 - SALEM, UTAH 84653
PHONE (801) 423-2770 FAX 423-2818 WEB SITE www.salem.ulct.org
Recorder - Jeffrey Nielson Treasurer - LaVera D. James Chief of Police - Brad S. James

**Mayor:** Dean S. Allan
**City Administrator:** Robert P. Bradshaw, M.P.A.
**Planning Director:** Mathew W. Evans, A.I.C.P.

**Director of Public Works:** [illegible]
**Treasurer:** Duane H. Williams
**Recorder:** Debra Warner

**MAPLETON CITY CORPORATION**

June 9, 2004

Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058

Subject: Comments on the Draft Environmental Impact Statement
Utah Lake Drainage Basin Water Delivery System

Dear Mark:

Mapleton hereby goes on record as supporting the further development of the Bonneville Unit of the Central Utah Project, specifically the Utah Lake Drainage Basin Water Delivery System. Mapleton supports the preferred alternative (Spanish Fork Canyon-Provo Reservoir Canal Alternative) as presented in the EIS documents dated March 2004 on file.

Mapleton residents have been anticipating water from the Central Utah Project for 40 years. They have paid several million dollars in taxes to the District for that 40 years. (Mapleton has been planning and constructing projects that are designed to utilize CUP water from the proposed pipeline.

In an effort to provide adequate water resources Mapleton has adopted a very aggressive water conservation program. The program includes a reduction in per-capita water use of 35% by the year 2050. Also included in that program is a graduated water rate structure that discourages excessive water use. Even with the conservation program there is a need for additional water in south Utah Valley.

The future of south Utah Valley is very much dependant on this additional water from Strawberry Reservoir. Many studies have been performed over the past several years and the 30,000 acre-feet of CUP water discussed in the preferred alternative is the **only** additional source of water available to south Utah Valley including Mapleton.

Thank you for your consideration.

R.P. Bradshaw
City Administrator on behalf of Dean Allan Mayor, Mapleton

35 East Maple Street • Mapleton, Utah 84664 • City Office (801) 489-5655 • Fax (801) 489-5657 • www.mapleton.org

Elk Ridge

80 EAST PARK DR.
ELK RIDGE, UTAH 84651
PHONE (801) 423-2300
FAX (801) 423-1443

June 8, 2004

Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058

Subject: Comments on the Draft Environmental Impact Statement
Utah Lake Drainage Basin Water Delivery System

Dear Mark,

Elk Ridge City hereby goes on record as supporting the further development of the Bonneville Unit of the Central Utah Project, specifically the Utah Lake Drainage Basin Water Delivery System. Elk Ridge City supports the preferred alternative (Spanish Fork Canyon-Provo Reservoir Canal Alternative) as presented in the EIS documents dated March 2004 on file.

Elk Ridge City residents have been anticipating water from the Central Utah Project for 40 years. They have paid taxes to the District for those 40 years. Elk Ridge City has been planning projects that are designed to utilize CUP water from the proposed pipeline; such as, possible irrigation water for proposed annexations north of the City.

In an effort to provide adequate water resources, Elk Ridge City has adopted a very aggressive water conservation program. The program includes a reduction in per-capita water use of 25% by the year 1050. Also included in that program is a graduated water rate structure that discourages excessive water use. Even with the conservation program there is a need for additional water in south Utah Valley.

The future of south Utah Valley is very much dependant on this additional water from Strawberry Reservoir. Many studies have been performed over the past several years and the 30,000 acre-feet of CUP water discussed in the preferred alternative is the **only** additional source of water available to south Utah Valley including Elk Ridge City.

Thank you for your consideration.

Vernon L. Fritz, Mayor
Elk Ridge City

CITY OF WOODLAND HILLS

200 SOUTH WOODLAND HILLS DRIVE * WOODLAND HILLS, UTAH 84653 * (801)423-1962

Toby Harding, Mayor 423-1371

Mac Baldwin, Councilmember 423-2565
Todd Rupper, Councilmember 423-1297
Charles Spence, Councilmember 423-3521
Jody Stones, Councilmember 423-3295

June 8, 2004

Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, UT 84058

Subject: Comments on the Draft Environmental Impact Statement
Utah Lake Drainage Basin Water Delivery System

Dear Mark,

The City of Woodland Hills hereby goes on record as supporting the further development of the Bonneville Unit of the Central Utah Project, specifically the Utah Lake Drainage Basin Water Delivery System. The City of Woodland Hills supports the preferred alternative (Spanish Fork Canyon-Provo Reservoir Canal Alternative) as presented in the EIS documents dated March 2004 on file.

The City of Woodland Hills residents have been anticipating water from the Central Utah Project for 40 years. The City of Woodland Hills has been planning and constructing projects that are designed to utilize CUP water from the proposed pipeline.

In an effort to provide adequate water resources the City of Woodland Hills has adopted a very aggressive water conservation program. The program includes a reduction in per-capita water use of 25% by the year 2050. Also included in that program is a graduated water rate structure that discourages excessive water use. Even with the conservation program there is a need for additional water in south Utah Valley.

The future of south Utah Valley is very much dependant on this additional water from Strawberry Reservoir. Many studies have been performed over the past several years and the 30,000 acre-feet of CUP water discussed in the preferred alternative is the **only** additional source of water available to south Utah Valley including the City of Woodland Hills.

Thank you for your consideration.

Toby M. Harding

Toby M. Harding, Mayor
City of Woodland Hills

METROPOLITAN
WATER
DISTRICT OF
SALT LAKE & SANDY

3430 East Danish Road
Sandy, UT 84093

John Robert Carman,
General Manager

W. Reed Jensen,
Controller

June 11, 2004

Mark A. Breitenbach, DEIS Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058-7303

RE: Public Comment
Utah Lake Drainage Basin Water Delivery System (ULS)
Draft Environmental Impact Statement &
Draft Supplement to the Bonneville Unit Definite Plan Report
(DEIS/DPR)

Dear Mr. Breitenbach:

The Metropolitan Water District of Salt Lake & Sandy (MWDSLS) would like to congratulate you and the entire DEIS/DPR project team on your outstanding effort in the preparation of this draft document. As you well know, MWDSLS is keenly interested in this project and would like to emphasize our support of the preferred alternative. This alternative not only allows for the enhancement of certain environmental features but is the only alternative presented that provides potential opportunities for our customers. Since this alternative successfully generates benefits for both the water users as well as various environmental concerns, we sincerely support its selection as the "preferred alternative".

It is not our intent, in presenting these comments, to call into question the merit of the preferred alternative. We are primarily interested in informing you of our review observations in the context of our operational perspective, in the hopes of clarifying the assumptions and foreseeable outcomes that may result from implementation of the preferred alternative.

Our team has generated hundreds of detailed notes, questions and potential comments based on their individual review as well as group discussions. Most of these comments can be compiled into one of the general areas in the following abbreviated list. We hope the following comments are beneficial to your process.

- **June Sucker RPAs.** It is our understanding that any obligations identified in the 1994 Biological Opinion are in no way altered by the ULS DEIS/DPR. Nor is any attempt in the DEIS/DPR to summarize, explain or clarify those obligations to be used as a binding description of any obligations.
- **Environmental Commitments.** We understand that one of the primary goals of the ULS is to show sufficient progress towards environmental concerns within the Utah Lake drainage basin. Appendix A is a good compilation of environmental commitments that currently exist and who they belong to. However, we would like clarification that all previous

commitments will be executed and interpreted as they would with or without the DEIS/DPR and Record of Decision (ROD). In addition, we are uncertain about how any new commitments resulting from this action would indirectly effect the MWDSLS operations. We understand that a new biological opinion will be issued on this project and that any new obligations arising from this document will be upon the CUP.

- **Existing Agreements.** The documentation is unclear on whether any of the existing agreements, rights, etc. can be substantively altered or effectively constrained by the EIS/DPR ROD. In some places the EIS/DPR seems to be largely informative (without altering) any existing operations. In other places, the language of the document may be interpreted as effective changes in previously negotiated operating agreements. It is our understanding that the previous agreements will still hold precedence over any stated, described, or interpreted conflict represented in the ULS EIS/DPR.
- **MWDSLS Operations.** We understand that the operational data and parameters used to define MWDSLS and Provo River Project (PRP) operations are based upon the available historical record. Though this is acceptable for comparison between alternatives, it should be noted that this historical record may not represent the complete operational range available. We have great versatility in managing operational scenarios and that past practices are not an accurate prediction of future operations nor should these documents in anyway restrict MWDSLS or the PRP to maintain historic practices as described in the documents or limit MWDSLS's ability to meet future yearly and seasonal demand patterns. In addition, the water supply needs of MWDSLS may vary from those predicted in the DEIS/DPR due to the methodology (per capita demands) used to determine future water demands.
- **Utah Lake Levels and Conditions.** The level of assumption, detail and analysis regarding forecasted lake levels, water quality and operational consequences may be oversimplified, particularly in the context of potential secondary impacts to the PRWUA, MWDSLS's exchange agreement (ULDC), and MWDSLS's member cities' exchange agreements. It is our understanding that the ULS project will not have negative impacts to Utah Lake that would affect MWDSLS or its member cities operational needs and contractual commitments.
- **"Enclosed" Provo Reservoir Canal (PRC).** The DEIS/DPR refers to the PRC in many locations as "enclosed." Although the PRC is currently planned to be enclosed in the future, it is our view that the enclosure is not required in order for ULS water to be utilized in the PRC. MWDSLS and others intend for the PRC (whether enclosed or not) to be utilized in conjunction with the Salt Lake Aqueduct and the Jordan Aqueduct to make water deliveries in an efficient and effective manner.

We reiterate our support for this project and specifically the Preferred Alternative. We recognized the amount of effort that you and your team have spent in preparing this document and appreciate the opportunity you have given us to review it. We hope that these comments will serve to clarify a few points that are important to us. Thank you.

Sincerely,

John Robert Carman
General Manager

MEO

Cc: Don Christiansen / CUWCD
Ron Johnston / DOI

STRAWBERRY
**Water Users Association**
P.O. Box 70 745 North 500 East Payson, Utah 84651
(801) 465-9273 Fax (801) 465-4580
Email: mail@strawberrywater.com

Robert W. McMullin
President
Gerald Thomas
Vice President

Gary A. Aitken
General Manager
Secretary/Treasurer
mail@strawberrywater.com

June 11, 2004

Mr. Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
335 West University Parkway
Orem, UT 84058-7303

Re: Utah Lake Drainage Basin Water Delivery System Draft Environmental Impact Statement Public Review Comments

Dear Mr. Breitenbach:

We appreciate the opportunity to address you regarding the Utah Lake Drainage Basin Water Delivery System (ULS) Draft Environmental Impact Statement (DEIS), which is very important to the Strawberry Water Users Association (SWUA) and its shareholders.

SWUA is a nonprofit corporation organized in 1922 primarily for the purpose of contracting with the United States Bureau of Reclamation (Reclamation) to repay to the United States the remaining unpaid construction costs of the Strawberry Valley Project (SVP), and to provide a water supply to approximately 3,200 SWUA shareholders, including the south Utah County cities of Springville, Mapleton, Genola, Spanish Fork, Salem, and Payson. SWUA repaid to the United States all of the costs of construction of the SVP in 1974.

The SVP is a federal Reclamation project constructed between 1906 and 1915. The SVP provides approximately 71,000 acre-feet (AF) of water to approximately 41,000 acres of land in south Utah County. Most lands served by the SVP have insufficient water. SWUA coupled with the nine affiliated canal companies and irrigation districts deliver approximately 150,000 acre-feet of water annually to south Utah County.

Because south Utah County has always been a dry spot in a desert state, SWUA and its shareholders have been among the very first, and the very strongest, supporters of the Central Utah Project (CUP). Soon after the Central Utah Water Conservancy District (CUWCD) was formed in 1964 as the local entity that would repay the local share of the CUP, south Utah County residents began paying property taxes to CUWCD to support the CUP. SWUA shareholders, many of them struggling family farmers, have been paying those taxes ever since.

BOARD of DIRECTORS
Clair O. Anderson Wm. Garry Brown Calvin Crandall J. Merrill Hallam Blair R. Hamilton Orlo B. Larson Kelly B. Lewis Robert W. McMullin
Robert Riding Alan R. Riley Dale T. Rowley C. Neil Sorensen Tom C. Sorensen Gerald Thomas Jesse W. Warren Dan R. Williams

From the conception of the CUP it was intended that CUP facilities would replace certain SVP facilities. The Strawberry Dam was replaced by the Soldier Creek Dam. The Strawberry Reservoir was replaced by the Enlarged Strawberry Reservoir. The Strawberry Tunnel was replaced in part by the Syar Tunnel.

From the very beginning it was clear that without the cooperation and support of SWUA and its shareholders there could be no CUP. SWUA gave its support to the CUP, and allowed SVP facilities to be replaced by CUP facilities.

Prior to the enactment of the 1992 Central Utah Project Completion Act (CUPCA) it was anticipated that SWUA, CUWCD, and the United States would be required to enter into an agreement for the operation and maintenance of CUP facilities for the benefit of both the SVP and the CUP. Such an agreement was signed by the United States, CUWCD and SWUA in 1991, one year before the agreement was mandated by Congress. I refer you to Section 209 of CUPCA.

The SVP is a Reclamation project that remains important to the future of the State of Utah and the residents of South Utah County. SWUA believes it has solemn responsibilities to preserve, protect and enhance the SVP in cooperation with Reclamation.

The CUP is also a Reclamation project, to be completed by the CUWCD under the supervision of the Secretary of the Department of the Interior. SWUA has in the past supported the Bonneville Unit by, among other things, relinquishing to the CUWCD certain rights and responsibilities for the care, operation, maintenance and control of certain SVP facilities, and allowed those SVP facilities to be replaced by CUP Bonneville Unit facilities, which serve both the Bonneville Unit and the SVP.

The Bonneville Unit, including the anticipated ULS, is important to the State of Utah and south Utah County. SWUA believes the SVP can facilitate, enhance and support the ULS, and that a properly planned and constructed ULS can enhance and improve the SVP.

SWUA supports the planning and completion of a ULS <u>that does not unfairly or unreasonably impair the interests of the SVP or its beneficiaries</u>.

SWUA reaffirms its conviction that the completion of the Bonneville Unit is a worthy and important goal for SWUA, the beneficiaries of the SVP, the residents of south Utah County, and the State of Utah. SWUA commits to vigilantly support and encourage the planning and completion of an appropriate ULS, to the best of its ability, consistent with SWUA's solemn obligations to preserve, protect and enhance the SVP.

1. SWUA expects that the ULS operation will not interfere with the terms of the 1991 Operation and Maintenance Agreement of the Enlarged Strawberry Reservoir and the Related Facilities Jointly Used. If there are items of concern in the existing 1991 Agreement, we would be happy to address those with the CUWCD.

2. The ULS anticipates delivering some SVP water to south Utah County through CUP facilities. Per existing SWUA/United States contracts the SVP water is appurtenant to the land and ownership of those SWUA shares belongs to the landowners. Agreements will be needed to enumerate and clarify the terms and conditions of delivering SVP water through CUP facilities. In order to properly represent the interests of all SWUA shareholders, SWUA expects to be party to those agreements.

3. SWUA expects that its contractual rights with respect to its power privilege as addressed in the 1940 Repayment Contract and the 1991 Agreement will be honored.

SWUA believes that these expectations are in complete harmony with the six guiding principles of the Secretary of the Interior's Water 2025 program which is intended to prevent crises and conflict related to water in the West. These principles include respecting existing federal contracts; maintaining and modernizing existing water facilities so they will continue to provide water and power; enhancing water conservation, use efficiency, and resource monitoring to allow existing water supplies to be used more effectively; and using collaborative approaches to minimize conflicts.

Within the context of these introductory comments, SWUA makes the following comments regarding the ULS DEIS:

**Page 1-1, Section 1.1.2, Overview of the Bonneville Unit** – It is interesting to note that this section makes no mention of the SVP. There is a brief paragraph regarding SVP on page 1-151; however, this paragraph does not describe the interrelationship of the two projects and comes at the end of the chapter. Given the extent to which SVP and Bonneville Unit facilities are shared, we believe it is impossible to have a clear understanding of the Bonneville Unit without an explanation of its interrelationship with SVP. This explanation is needed early in the document so the reader can understand that relationship. Furthermore, the 1991 Contract Among the United States, Central Utah Water Conservancy District and Strawberry Water Users Association Relating to the Operation and Maintenance of the Enlarged Strawberry Reservoir and the Related Facilities Jointly Used (1991 Agreement) should be thoroughly described so the reader can understand the overall project operating requirements.

**Page 1-15, Paragraph 1.1.3.1, Development of Project Power Under the Utah Lake System** – This paragraph states that "CUP project power on CUP facilities is exclusively a function of the CUP even though it utilizes both CUP and SVP water flowing through CUP facilities. Participation by any non-CUP entity in power development in the CUP, Bonneville Unit, Diamond Fork System, would require a determination that a lease of power privilege is authorized and would be made available. If such a determination were made, the general concepts and procedures outlined in Federal Register Notice Nos. 94-31057, dated December 19, 1994, and 99-16852, dated July 2, 1999, would be followed."

This paragraph should describe SWUA's power rights as acknowledged by the United States in numerous documents including the 1991 Agreement and as mentioned in the Federal Register Notice No. 94-31057, dated December 19, 1994. Although the documents supporting the DEIS describe how power development will benefit the Bonneville Unit, there is no mention

of any economic benefit to SWUA which could be used for the rehabilitation and betterment of SVP facilities.

**Page 1-30, Paragraph 1.4.2, Spanish Fork Canyon-Provo Reservoir Canal Alternative Features** – This paragraph erroneously states that SVP water shares are held by SUVMWA. SVP water shares are attached to the land they serve and as such are owned by individual land or lot owners.

The paragraph also states that SVP water would be delivered through the Spanish Fork-Santaquin Pipeline on a space-available basis. Page 1-41 states that the pipeline capacity ranges from 120 to 50 cfs. However, Table S-13a, found in Attachment A of the Supplement to the Bonneville Unit Definite Plan Report, Draft Water Supply Appendix, Volume 4, shows that flows in the pipeline would generally exceed the stated pipeline capacity during the summer months, with peak flows being as high as 163 cfs. Review of this analysis would lead one to question whether or not there is any space available in the pipeline to deliver SVP water – especially given the fact that the water needs to be delivered during the summer months. Furthermore, how can 163 cfs of water be delivered through a pipeline with a capacity of 120 cfs?

Additionally, there needs to be a discussion of how losses are to be assessed to shares delivered through ULS pipelines. Another complication arises from the fact that there is no apparent way to deliver SVP Spanish Fork River water through the pipelines. These river flows are an important element of SVP operation. These river flows need to be fully utilized, particularly in wet years, so that water stored in Strawberry Reservoir can be carried over and preserved for drought years. These issues need to be spelled out in an operating agreement to which SWUA is a party.

**Page 1-34, Paragraph 1.4.2.2, Upper Diamond Fork Power Facility and Transmission Line** – This paragraph states that the Upper Diamond Fork Power Facility would have a capacity of 5 MW. However, if the unit were to have the same rated flow as the Sixth Water Power Facility, its capacity would be about 19 MW. A review of the Supplement to the Bonneville Unit Definite Plan Report Draft Power Appendix, page 3-7 indicates that the capacity of the Upper Diamond Fork power plant was limited to 5 MW due to limitations of the power cable installed in the Tanner Ridge Tunnel. Further explanation of the sizing of this power plant is warranted. Within the intermountain area, power producers are currently constructing several gas-fired power plants, which demonstrates a need for additional generating capacity. Responsible planning would dictate that renewable resources such as hydropower should be fully developed rather than increasing our dependence on scarce fossil fuels, particularly when the penstock for the power plant is already in place. It would be a waste of an important resource to burn off this available energy through sleeve valves simply because of a limitation in a power cable. Can the capacity of the cable be increased? If not, could an overhead transmission line with increased capacity be constructed?

**Page 1-45, Table 1-9** – Turnout capacities for the Spanish Fork-Santaquin Pipeline are confusing. The total sum of the peak dedicated turnout capacities as listed is 170 cfs. However,

the pipeline capacity is 120 cfs. How does this work? Additionally, there is no explanation of the off-peak capacity listed in the table.

**Page 1-73, Paragraph 1.4.9.1, Transbasin Diversion** – Regarding the uses of SVP water – in addition to delivery to farmers for irrigation, the water is also used by cities for lawn and garden watering and for power generation.

**Page 1-74, Paragraph 1.4.9.3, Return Flows and Recycled Water, 3rd paragraph** – The DEIS states that the hydrology presented in previous Bonneville Unit NEPA and planning documents has consistently assumed that historical inflow to Utah lake, including return flows, would continue in the future. The DEIS also indicates that this same assumption was used in ULS planning.

SWUA believes that is a very bad assumption. A better assumption would be that with increased development in Utah County, existing water rights would be more fully and more efficiently utilized which would have the effect of reducing total inflow to Utah Lake. Most of the cities in Utah County have groundwater rights which at present are not fully utilized. The State Engineer's groundwater management plan for north Utah County provides for groundwater withdrawals that will be almost double their present levels. Increased groundwater withdrawals will reduce the subsurface inflow to Utah Lake. More efficient use of water supplies is also being emphasized. Increased efficiency of use will decrease return flows to the lake. Additionally, many communities in Utah County are beginning to study the feasibility of wastewater recycling. If implemented, these projects will also reduce the inflow to Utah Lake.

As inflow to Utah Lake is reduced, how would this affect the operation of the ULS and other elements of the Bonneville Unit? Is there enough project water supply to make planned ULS deliveries as well as releases to Utah Lake for exchange to Jordanelle Reservoir?

By relying on historic inflow levels and failing to consider present and future conservation and efficiency, the DEIS is possibly deficient because (1) it forecloses future conservation and reuse of return flows and irretrievable and irreversibly commits these return flows to other uses, and (2) it fails to consider ULS cumulative impacts together with current and future water conservation and efficiency efforts.

1. <u>Foreclosure of Future Options and Irretrievable Commitment of Resources</u>:

The DEIS must address "the extent to which the proposed action forecloses future actions" and the extent to which the proposed action involves "irreversible and irretrievable commitments of resources which would be involved in the proposed action." See, 42 U.S.C. § 4332(2)(C)(v); 40 C.F.R. §§ 1508.8(b) and 1508.27(b)(6); *NRDC v. United States Nuclear Regulatory Comm'n.*, 547 F.2d 633, 642 (1976), rev'd on other grounds sub nom. *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978); *Fritiofson v. Alexander*, 772 F.2d 1225 (5th Cir. 1985) (If proceeding with one project

will foreclose options or irretrievably commit resources to future projects, environmental consequences of projects should be evaluated together.); *NRDC v. Administrator, Energy Research and Dev. Admin.*, 451 F.Supp. 1245, 1264 (D.D.C. 1978) (Federal agency must assess the extent to which the proposed action forecloses future actions and the extent to which the proposed action involves irreversible and irretrievable commitments of resources.)

By relying on the historic level of return flows to Utah Lake, the DEIS effectively requires that these return flows continue at their historic level *ad infinitum*. This amounts to an irretrievable and irreversible commitment of what currently is and will grow to be a significant source of water for both irrigation and M&I needs. In other words, requiring historic return flows to reach Utah Lake effectively forecloses future conservation, efficiency and reuse options solely to maintain historic lake levels. Water conservation is, and will continue to be, a high priority and necessity statewide.

Further, by foreclosing the ability to conserve and reuse available water, the effects of the DEIS extend beyond the water supply and into the cultural, economic and social realms. These effects must be examined as well. 40 C.F.R. § 1508.8(b).

2. Cumulative Impacts:

The DEIS fails to consider the cumulative impacts of the ULS together with the on-going and reasonably foreseeable water conservation measures throughout the Utah Lake drainage basin. See, 40 C.F.R. §1508.25(c); *Churchill County v. Norton*, 276 F.3d 1060, 1080-81 (9th Cir. 2001) (An EIS must include a useful analysis of the cumulative impacts of the proposed action together with ongoing and reasonably foreseeable related activity in the area.) A meaningful cumulative impacts analysis must identify: (1) the area in which effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions - past, proposed, and reasonably foreseeable - that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate. *Fritiofson*, 772 F.2d at 1245 (5th Cir. 1985). A cumulative impact is defined as:

> "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." (40 C.F.R.§ 1508.7 emphasis added.)

Thus, it is essential that the DEIS identify and consider not only the ULS alone but the ULS together with the ongoing, proposed, and reasonably foreseeable future

conservation and reuse measures by water users in the Utah Lake drainage. See, *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 810 (9th Cir. 1999); *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1379 (9th Cir. 1998); *Resources, Ltd., Inc. v. Robertson*, 35 F.3d 1300, 1306 (9th Cir. 1993). In analyzing these cumulative impacts "quantified or detailed information is required" so that the courts and the public can be assured that the agencies have taken the mandated "hard look" at the environmental consequences of the project. *Neighbors of Cuddy Mountain*, 137 F.3d at 1379. A cumulative impacts analysis that contains only "[v]ery broad and general statements devoid of specific, reasoned conclusions" does not satisfy NEPA. *Muckleshoot*, 177 F.3d at 811; *Neighbors of Cuddy Mountain*, 137 F.3d at 1379.

Here, the DEIS makes no attempt to analyze the cumulative effects of the ULS together with the present and future improvements in drainage-wide water conservation and efficiency. The responsible agencies' failure to identify on-going and reasonably foreseeable conservation and reuse measures (including those associated with SVP water) which would affect Utah Lake inflows is a transparent attempt to avoid conducting the meaningful cumulative impacts analysis required by law. See, *Resources Ltd., Inc.*, 35 F.3d at 1306.

3. SVP Return Flows:

Should the responsible agencies acknowledge the right of SWUA to conserve and reuse its SVP water and consequently acknowledge that SVP return flows are not considered part of the relied upon inflow to Utah Lake, the concerns raised above would be most likely ameliorated. In other words, so long as the responsible agencies acknowledge that SWUA's current and future conservation and reuse of SVP water will not be curtailed or impeded by the ULS Utah Lake equation, the concerns of SWUA in this regard may well be unnecessary.

**Page 1-75, Figure 1-18** – All SVP water deliveries, including the 10,200 acre-feet delivered to SUVMWA, will need to share in conveyance losses. It is customary and reasonable that when irrigation shares are transferred out of existing canals that a portion of the transferred shares remain in the canal to provide "carriage water" to offset seepage and evaporation losses. SWUA will need to sign off on all water transfers that move SVP water out of existing conveyance facilities.

**Page 1-79, Paragraph 1.4.10.1, Introduction** – The DEIS states that up to 10,200 acre-feet of SVP water shares *held by SUVMWA* would be conveyed to member cities in southern Utah County through new ULS pipelines. SUVMWA does not hold SVP water shares. SVP water shares are attached to the land they serve and as such are owned by individual land or lot owners.

Additionally, there needs to be a discussion of how losses are to be assessed to shares delivered through ULS pipelines. Another complication arises from the fact that there is no apparent way to deliver SVP Spanish Fork River water through the pipelines. These river flows are an important element of SVP operation. These river flows need to be fully utilized, particularly in wet years, so that water stored in Strawberry Reservoir can be carried over and preserved for drought years. These issues need to be spelled out in an operating agreement to which SWUA is a party.

The paragraph also states that hydroelectric power would be generated by CUP and SVP water passing through turbines at two power facilities in the Diamond Fork System. Reclamation has recognized SWUA's rights to generate power in Diamond Fork. These rights need to be addressed in the project plan.

**Page 1-80, Paragraph 1.4.10.2.1, Water Delivery Operations** – The first bullet item on this pages states that up to 10,200 acre-feet of SVP water shares *held by SUVMWA* would be conveyed to member cities in southern Utah County through new ULS pipelines on a space-available basis. SUVMWA does not hold SVP water shares. SVP water shares are attached to the land they serve and as such are owned by individual land or lot owners. Page 1-41 states that the Spanish Fork-Santaquin Pipeline capacity ranges from 120 to 50 cfs. However, Table S-13a, Found in Attachment A of the Supplement to the Bonneville Unit Definite Plan Report, Draft Water Supply Appendix, Volume 4, shows that flows in the pipeline would generally exceed the stated pipeline capacity during the summer months, with peak flows being as high as 163 cfs. Review of this analysis would lead one to question whether or not there is any space available in the pipeline to deliver SVP water – given the fact that the water needs to be delivered during the summer months.

**Page 1-85, Paragraph 1.4.10.2.1, Water Delivery Operations** – The last bullet item on this page states that hydroelectric power would be generated from the M&I water conveyance. However, page 1-79 states that hydroelectric power would be generated by CUP *and SVP* water passing through turbines at two power facilities in the Diamond Fork System.

**Page 1-87, Paragraph 1.4.10.2.1, Water Delivery Operations** – The first paragraph describes the SCADA system that would be implemented and monitored at District offices in Orem. How will the delivery of SVP water through CUP facilities be monitored? Since the Spanish Fork River Commissioner has responsibility to monitor and account for delivery of SVP and CUP water through Diamond Fork and the Spanish Fork River, it would be appropriate that he also have a computer terminal that can monitor all water deliveries.

**Page 1-95, Section 1.5.2, Bonneville Unit Water Alternative Features** – The 2nd to last paragraph says that up to 10,200 acre-feet of SVP water shares *held by SUVMWA* would be conveyed to member cities in southern Utah County through the Spanish Fork-Santaquin Pipeline. As mentioned previously, SUVMWA does not hold SVP water shares. SVP water shares are attached to the land they serve and as such are owned by individual land or lot owners.

**Page 1-99, Paragraph 1.5.9.1, Transbasin Diversion** – Regarding the uses of SVP water – in addition to delivery to farmers for irrigation, the water is also used by cities for lawn and garden watering and for power generation.

**Page 1-101, Figure 1-22** – All SVP water deliveries, including the 10,200 acre-feet delivered to SUVMWA, will need to share in conveyance losses.

**Page 1-104, Paragraph 1.5.10.2.1, Water Delivery Operations** – The second bullet item on this pages states that up to 10,200 acre-feet of SVP water shares *held by SUVMWA* would be conveyed to member cities in southern Utah County through new ULS pipelines. SUVMWA does not hold SVP water shares. SVP water shares are attached to the land they serve and as such are owned by individual land or lot owners.

**Page 1-105, Paragraph 1.5.10.2.1, Water Delivery Operations** – The last bullet item on this page states that hydroelectric power would be generated from the M&I water conveyance. However, we assume that as with the preferred alternative, SVP water would also be used to generate power.

**Page 1-106, Paragraph 1.5.10.2.4, Automated Control System** – This paragraph describes the SCADA system that would be similar to the preferred alternative. How will the delivery of SVP water through CUP facilities be monitored? Since the Spanish Fork River Commissioner has responsibility to monitor and account for delivery of SVP and CUP water through Diamond Fork and the Spanish Fork River, it would be appropriate that he also have a computer terminal that can monitor all water deliveries.

**Page 1-145, Table 1-35** – The table lists several contracts and agreements that will be needed under the preferred alternative. SWUA will need to be party to any of the agreements that involve delivery of SVP water to SVP shareholders. Furthermore, an agreement is needed to address SWUA's power rights and the power generated by SVP water. An agreement for use of SVP right-of-way for construction of the Mapleton-Springville Lateral Pipeline will be needed. Also, an operating agreement for the remaining open canal portion of the Mapleton-Springville Lateral will be needed to identify CUWCD responsibilities for operation and maintenance of that facility.

**Page 1-148, Table 1-37** – The table lists several contracts and agreements that will be needed under the Bonneville Unit Water Alternative. SWUA will need to be party to any of the agreements that involve delivery of SVP water to SVP shareholders. Furthermore, an agreement is needed to address SWUA's power rights and the power generated by SVP water. An agreement for use of SVP right-of-way for construction of the Mapleton-Springville Lateral Pipeline will be needed. Also, an operating agreement for the remaining open canal portion of the Mapleton-Springville Lateral will be needed to identify CUWCD responsibilities for operation and maintenance of that facility.

**Page 1-151, Past Projects and Actions** – The second paragraph provides an inadequate description of the SVP. This paragraph does not describe the interrelationship of the SVP and Bonneville Unit. Given the extent to which SVP and Bonneville Unit facilities are shared, we

believe it is impossible to have a clear understanding of the Bonneville Unit without an explanation of its interrelationship with SVP. Additionally, there is only a vague indirect reference to the 1991 operating agreement. An understanding of this agreement is critical to understanding the relationship between CUP and SVP and the overall Bonneville Unit operating requirements. The paragraph also mentions a 50,000 acre-foot carryover volume not available before the Bonneville Unit. This statement is not true because SVP had the entire 273,000 acre-foot Strawberry Reservoir available for carryover storage prior to the Bonneville Unit.

**Page 1-153, Section 1.10.2, Possible Future Actions Not Included in the Cumulative Impact Analysis** – This section should mention the potential for SWUA's reuse of 15,600 acre-feet of SVP return flows under Exchange Application E3760, filed December 12, 1997. However, SWUA believes that its plan for reuse of SVP return flows should have been included in the cumulative impact analysis along with more efficient use of existing water supplies by other entities.

**Page 3-8, Section 3.2.3, Scoping Issues Eliminated from Further Analysis** – The top paragraph on this page states that ULS alternatives would have no impact on SVP water deliveries through the Diamond Fork System, which would continue to operate according to existing operating agreements and procedures. However, there is no discussion about how ULS alternatives affect SWUA's power rights in Diamond Fork.

**Page 3-14, Section 3.2.7, Affected Environment (Baseline Conditions)** – This section mentions that baseline conditions reflect historical precipitation and natural streamflows at the present level of completed project facilities, existing water contracts and petitions, water demand and existing operating criteria. As mentioned previously, the baseline should reflect increased development in Utah County, which would cause existing water rights would be more fully and more efficiently utilized. This increased efficiency would have the effect of reducing total inflow to Utah Lake. As inflow to Utah Lake is reduced, how would this affect the operation of the ULS and other elements of the Bonneville Unit? Impacts of the Bonneville Unit on Utah Lake and its environs could be dramatically different if a more appropriate baseline were used.

**Page 3-18, Paragraph 3.2.8.2.6, Potential Impacts on Reservoirs and Lakes** – What happens when existing water rights upstream from Utah lake are more fully and efficiently utilized? Does the project water supply still work? What would be the effects on Utah Lake?

**Page 3-66, Paragraph 3.4.7.2, Baseline Water Levels** – Map 3-4 does not show historical groundwater levels as indicated in the text.

**Page 3-210, Paragraph 3.12.8.3.2.3, Public and Business Services and fiscal Conditions** –How was the decrease of $6,125 per year in power generation revenue calculated? We are unable to verify that number. By way of clarification, the Strawberry Upper Generator is owned and operated by SWUA, not the Strawberry Electric Service District.

**Page 3-313, Paragraph 3.21.8.3.1.1, Power Generation Facilities** – How much of the power generated at the Sixth Water and Upper Diamond Fork Power Facilities is attributable to SWUA's power rights? By way of clarification, the Strawberry Upper Generator is owned and

operated by SWUA, not the Strawberry Electric Service District. How was the decrease of 76,560 kW-hr per year in power generation calculated?

**Surface Water Hydrology Technical Report, Volume 1, page 15** – Figure 21 appears to be missing.

**Surface Water Hydrology Technical Report, Volume 1, Attachment 1, Background Information and Technical Memoranda, Memorandum from Ryan C. Murdock and Steven M. Thurin to Mark Breitenbach, dated April 21, 2003, page 8** – This memorandum states that in many months Strawberry Tunnel seepage water is credited to natural flows and not to SVP. SWUA objects to this assumption because SWUA holds the water rights for the tunnel seepage (WR Number 51-2259). Approved uses for the water include domestic, power, and irrigation. SWUA uses this water right on a year-round basis.

**Surface Water Hydrology Technical Report, Volume 1, Attachment 1, Background Information and Technical Memoranda, Memorandum from Ryan C. Murdock and Steven M. Thurin to Mark Breitenbach, dated April 21, 2003, page 9** – This memorandum states that the average volume of the historical releases that could be delivered under current operating policies is 59,468 acre-feet. SWUA disagrees with this since the 1991 operating agreement provides for a firm supply of 61,000 acre-feet per year with carry over storage of up to 50,000 acre-feet.

SWUA appreciates the opportunity to provide these comments. We look forward to working with CUWCD on a collaborative basis to develop a ULS project that not only meets the stated purpose and need of the ULS, but that also operates in harmony with the SVP and its interests.

Sincerely,

Robert W. McMullin
President

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June 11, 2004

Mark Breitenbach, P.E.
ULS DEIS Project Manager
Central Utah Water Conservancy District
335 West University Parkway
Orem, UT 84058-7303

RE: Provo River Water Users Association Comments on Utah Lake Drainage Basin Water Delivery System Draft Environmental Impact Statement

Dear Mr. Breitenbach:

Thank you for the opportunity to submit comments on the Draft Environmental Impact Statement for the Utah Lake Drainage Basin Water Delivery System. In most respects, the draft EIS is very detailed and comprehensive. It reflects an outstanding effort by you, your staff and consultants. Please accept the compliments of the Association on your efforts.

Please find enclosed with this letter comments submitted on behalf of the Association. We would welcome consultation on any comments. We would be glad to respond to any questions you may have or provide additional detail on any of the comments submitted.

The Association supports the ULS concept and the Preferred Alternative. We hope to work with you and other representatives of Central Utah Water Conservancy District to address the issues and concerns reflected in our comments.

Sincerely yours,

G. Keith Denos, P.E.
General Manager

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**Provo River Water Users Association Comments on**
**Utah Lake Drainage Basin Water Delivery System**
**Draft Environmental Impact Statement**

1. Paragraph S.3.1 states that DOI would acquire 57,000 acre-feet (AF) of secondary water rights in Utah Lake to be used for exchange to Jordanelle Reservoir. Exchange App. No. 398 appears to be the basis for the assumption made here. It calls for 300,000 AF to be available for exchange, but the hydrologic resource does not appear to allow for this quantity to be exchanged without affecting senior water rights.

2. Paragraph S.5.1.3, Groundwater Hydrology, refers to an estimate that 9,660 AF of such water would return to Utah Lake as groundwater. The basis for the assumption of 65% consumptive use and 35% return flow is not clear. Are there tabulations of this groundwater return flow? Also, there appears to be no mechanism defined to protect against return flows being diverted out of priority rather than being delivered to water rights users owning the priority rights.

3. Paragraph S.5.1.8 states that changes in predation on June sucker from increased populations of predators were not analyzed. It appears that predators, especially non-native predators, significantly affect June sucker populations. Perhaps this should be addressed.

4. Paragraph S.5.1.12, Cultural Resources, refers to the Murdock Canal. The canal should be designated as the Provo Reservoir Canal (PRC). The diversion structure on the Provo River is the Murdock Diversion. This occurs throughout the DEIS.

5. Paragraph 1.1.2.1.5, Municipal and Industrial System, discusses Utah Lake water originating from the Provo River being replaced by the Bonneville Unit flows to Utah Lake. The DEIS does not analyze whether the hydrology of the Provo River permits such large amounts of water to be exchanged from Utah Lake to Jordanelle without impacting rights of the Provo River Project (PRP) and other senior water rights. Further, reference to rediversion from the Provo River into the Olmstead flow line does not address the impact on the environmental commitments listed in Appendix 1. Any such exchanges and the resulting diversions should be subject to environmental commitments

6. Paragraph 1.1.2.3, Other CUPCA Program Components, refers to additional studies of Utah Lake salinity and Provo River water supply. Provo River Water Users Association (Association) should be consulted regarding any studies relating to the Utah Lake and/or Provo River. The Association is not listed in Chapter 4 as a party with whom consultation has been or should be held. Any changes in management of the Provo River will have significant impact on the PRP. Also, the draft does not mention the need to consult with the Association on the capacity needed in the PRC.

7. Paragraph 1.1.2.5, Bonneville Unit Operations, refers to an average of 84,510 AF of Bonneville Unit water to be exchanged for storage in Jordanelle Reservoir. Again, does the hydrology of the Provo River support such an exchange?

8. Paragraph 1.1.3.1, does not mention whether other water users importing foreign water used in power generation, such as the Association, will participate in power revenues. Also, is the proposed water supply sufficient to economically support such use?

9. Paragraph 1.1.2.2, the meaning of the last sentence is not clear. The DEIS also does not address whether recycled water is intended to be used for the proposed Jordanelle exchange.

10. Paragraph 1.2.1.1, M&I Water Demands, refers to meeting water demands by conversion of water supplies from agriculture use. Does the DEIS address the hydrologic impacts of such conversion?

11. Paragraph 1.2.1.3.2, in the next to last bullet point on page 1-28 misstates the streamflow commitment. The actual commitment is 100 cfs from the confluence of Provo River and Provo Deer Creek to Olmsted Diversion.

12. Paragraph 1.4.2.7, Spanish Fork-Provo Reservoir Canal Pipeline, describes the plan to connect a pipeline from the Spanish Fork Canyon Pipeline to the Provo Reservoir Canal. First, the point of connection is proposed for a narrow area of the Provo Reservoir Canal right-of-way that may present logistical problems. Second, this and many other references assume that the Provo Reservoir Canal will be enclosed prior to such connection. Enclosure may not occur unless there is continued support from CUWCD and other entities. Further, consultation with the Association and perhaps with the Bureau of Reclamation will be necessary to complete such a connection. NEPA compliance for the Provo Reservoir Canal Enclosure Project (PRCEP) has been completed, but no time table has been set yet as to when the enclosure will be completed. The ULS Pipeline proposed from 800 N to 1200 N in Orem is the narrowest part of the Provo Reservoir Canal corridor and it may be difficult to put the ULS pipeline and Provo Reservoir Canal Pipeline in the same corridor. The size and flows of the pipeline described in the DEIS are not sufficient for the amount of water represented by the petitions. The sizing of the pipelines appears to assume "base demand" sizing rather than "peak demand" sizing.

13. Paragraph 1.4.4.3, drawing on page 1-52, The depicted pipeline would use the entire right-of-way (ROW) for the PRC with no room left for the existing canal.

14. Paragraph 1.4.9.1: We are not able to reconcile the water quantities shown here with other information. For instance, the quantities shown in the summary table and diagram on p. 1-75 do not seem to match the numbers shown in this section. Also, is there a method proposed for protecting the return flow against illegal diversion and other system losses?

15. Paragraph 1.4.9.3, The discussion on return flows does not specify quantities, administration, or protection of return flow waters. Water used to show reuse and conservation in Salt Lake County is treated differently than water used in Utah Valley, which is treated as part of the make to Utah Lake that is needed for the Jordanelle exchange. Also, the DEIS does not address what happens if the BU or ULS petitions from JVWCD and MWDSLS are withdrawn, which would affect the ability to claim return flow.

16. Paragraph 1.4.9.3.2, Bonneville Unit Return Flows, states that a return flow of approximately 7,000 AF to Utah Lake will occur from water delivered to northern Utah County. Have the estimates of this return flow been tabulated? The third paragraph of Section 1.4.3.9.2 states that 21,000 AF to be recycled would "not be part of the ULS supply per se but would be included in the overall Bonneville Unit water supply." This statement is not clear and needs further explanation.

17. Paragraph 1.4.9.4, Conserved Water, addresses the water savings to occur from enclosure of the Provo Reservoir Canal. There is no discussion in the DEIS of the need for title transfer as a means of financing the enclosure. Further, Section 1.10.2 under the heading "Title Transfer" states that the action [title transfer] is considered too speculative to assess cumulative impacts to the ULS project. Since the DEIS seems to rely on enclosure as the means of generating the 8,000 AF of the total 12,165 AF needed for the June Sucker RIP, the DEIS should address the need for title transfer more specifically since title transfer, enclosure, and the 8,000 AF of conservation are very closely related. This is especially critical since no specific alternative source for the 8,000 AF is identified if the PRC enclosure does not occur.

18. Paragraph 1.4.9.4.1: Enclosure of the PRC has not taken place. The 8000 AF of conserved water associated with the canal is not available until the enclosure takes place. Without title transfer, the enclosure project is much less likely to happen.

19. Paragraph 1.4.9.4.3, Other Section 207 Project Water, refers to the 8,000 AF to be conserved by the Provo Reservoir Canal enclosure "or other future 207 project savings to be assigned to DOI." The DEIS does not identify any other alternative 207 projects to generate the necessary water conservation.

20. Paragraph 1.4.9.5, Last sentence: Utah Code Annotated §73-3-3 does not allow for Mitigation Commission to hold a water right for instream flows. Also, can the Mitigation Commission acquire water rights to assure flow to Utah Lake without affecting other water rights? What kind of filing will have to be made with the Utah Division of Water Rights to effect the instream flows?

21. Paragraph 1.4.10.2.1, Water Delivery Operations, contains a bullet point asserting that the 75 cfs minimum flows can be accomplished by releases from Deer Creek Reservoir for water to be conveyed through the Provo Reservoir Canal. While these commitments can be fulfilled on a cooperative basis, there is no contractual or other obligation for use of Provo River Water Users Association flows to meet this environmental commitment. As is done in this section, reference is made throughout the document to the enclosed Provo Reservoir Canal. The Canal is not yet enclosed and there is currently no firm timetable as to when it will be enclosed.

22. Paragraph 1.4.10.2.4, Second to last item on bullet list needs to recognize that coordination, cooperation, and an operating agreement between CUWCD and Association needs to be developed for the discharge structure. The Association needs to be involved in design of the connection structure, license agreements, and input on how the pipeline is operated. Also the DEIS does not address need for a tie to the Association's SCADA System.

23. Table 1-13 also refers to the 8,000 AF saved as, "Section 207 water conservation measures." None are referred to other than the Provo Reservoir Canal enclosure

24. Table 1-16 Preferred Alternative, the Jordanelle Reservoir volume and releases should be listed as well. The minimum storage in Deer Creek is 15,000 AF on May 1, but the assumptions underlying this estimate are not stated. The Association does not believe that this number is correct. Also, the 3,000 AF listed as storage in September is the amount of the dead pool. Also, Jordanelle Reservoir is not included in the analysis of system storage and should be.

25. Table 1-21: Same comments as Table 1-16

26. Table 1-23: Same comments as Table 1-16

27. Table 1-35 Because of the 2002 amendment to CUCPA, is it necessary to acquire Warren Act contracts for delivery of non-PRP water through the PRC? There is no mention of having a license agreement for use of the PRC ROW, for connection of the ULS pipeline to the PRC, and for operations. Also, the majority of Provo River Project water is conveyed through the Salt Lake Aqueduct and/or diverted directly out of the Provo River or exchanged to wells, etc to shareholders. Approximately 25% of Provo River Project Water is actually diverted at the Murdock Diversion into the Provo Reservoir Canal.

28. Section 1.10.2, the paragraph regarding the PRC trail, the first sentence should say: "A recreational trail is proposed for the Provo Reservoir Canal from Orem to Lehi", etc. There has been no agreement on dates of construction. Provo River Water Users Association maintains that the trail can be constructed only when the enclosure project is completed and funding is in place.

Tables 1-35 and 1-36 do not address financing for enclosure of the Provo Reservoir Canal, which appears to be a necessary element of the preferred alternative.

29. Paragraph 1.4.10.3, Stream Flows, bases its analysis on a 50-year period from 1950 to 1999. Selection of this period excludes the extremely dry years during the 1930's, but includes the extremely wet years of the 1980's. This may overstate water supply. Has statistical analysis been performed to evaluate whether this 50 year period is representative?

30. Paragraph 1.4.10.4, Reservoirs, addresses a -15,400 AF storage in Utah Lake. The Association assumes this water is likely to be stored in higher elevation reservoirs. If so, what accounting has been made for savings in evaporation losses? Also, the DEIS does not address whose water rights are affected by the 15,400 AF of reduced water in Utah Lake.

31. Paragraph 1.5.9.2, Return Flows and Recycled Water, refers to drainage and return flow from sprinkler and flood irrigation practices. Ideally, sprinkler irrigation is considered to be 100% consumptive.

32. Paragraph 1.5.9.3.2: Title transfer of the PRC is not mentioned and should be.

33. Paragraph 1.5.10.2.1, Water Delivery Options, refers to 16,273 AF of Bonneville Unit water from Strawberry Reservoir which would be exchanged from Utah Lake to Jordanelle Reservoir. Again, does the hydrology of the Provo River support such an exchange?

34. Paragraph 1.5.10.4, Reservoirs, and Table 1-21 also rely on the 50-year period of 1950 to 1999. The same comments apply as stated above.

35. Paragraph 1.9.3: Can Mitigation Commission file change application under current Utah State water law?

36. Paragraph 1.10.1: Again, reference to "enclosed PRC." Also, the majority of PRP water is not delivered through the PRC, but is delivered through the Salt Lake Aqueduct (SLA) or other canals, or is exchanged to wells.

37. Paragraph 1.10.2, Reference to title transfer of SLA and PRC says title transfer is too speculative. The Association believes that title transfer is near to essential for the PRCEP to occur, and without the PRCEP, there is no 8,000 AF of saved water and no recreational trail.

38. Paragraph 1.10.3.1.3, last bullet point on page 1-156, "Acquire and protect flows in Provo River" assumes enclosure of PRC.

39. Paragraph 1.10.3.1.4: Strawberry Reservoir. -Deer Creek Pipeline alternative is no longer under consideration.

40. Paragraph 1.10.3.2, The enclosure may not occur if there is no title transfer. It seems obvious from this statement that enclosure is expected prior to ULS construction, yet no time table has been set for the enclosure project. Is it appropriate to state that there is no cumulative impact because Provo Reservoir Canal Enclosure Project would be completed prior to ULS construction, even if we don't know for certain that is true?

41. Paragraph 3-15: Is the 50-year period really representative where it excludes the 1930s and 2001, 2002, 2003? Are there sufficient baseline years to be statistically significant? Should it be the basis for the model that is used for all of the hydrology used to support the Utah Lake - Jordanelle exchange?

42. Paragraph 3.2.8.2.6, "The pattern of storage tends to be very similar to baseline." What is defined as "baseline" and what is the justification for this statement?

43. Paragraph 3.2.8.2.8: The correct name is the "Deer Creek Reservoir-Jordanelle Reservoir Operating Agreement" It should be stated that in the event of a conflict with the Operating Agreement, the Operating Agreement will be the governing document, not the DEIS.

44. Paragraph 3.9.7.3 states that there is a failure to observe individual members of the species in certain waters, yet the tables show sightings. Have the scientific methodologies used for these studies been subjected to peer review?

45. Paragraph 3.9.7.3.1 The numbers appear to conflict. The text states June sucker were last observed in 2002, yet counts from 2003 studies were the most observed in 10 years.

46. Paragraph 3.9.8.3.2 PRWUA expresses support for the increased flows that result from the ULS preferred alternative, which will benefit the June sucker and increase habitat as well as help the June Sucker Recovery Implementation Project accomplish its goals.

47. Paragraph 3.13.8.3.1.6 Construction of the interconnect with the PRC and the pipeline needs to be done so as to cause no disruption to the operation and maintenance of the PRC. Also, historic survey work regarding the Provo Reservoir Canal has been done under the Provo Reservoir Canal Enclosure Project EA and may not be necessary for the ULS project. References to "Murdock Canal" should be changed to "Provo Reservoir Canal."

48. Paragraph 3.27.5.1 Would the 8000 AF for June sucker recovery only happen under the ULS preferred alternative?

49. Table F-5 Appendix to ULS F-28: The table contradicts text re: June sucker being collected during 2003, but text says none observed since 2002. Appendix F-28, Table F-5 contradicts the statement that there are no wild sightings of June sucker.

50. F.5.6: The 8,000 AF seepage loss savings to be assigned to DOI can't be counted on until enclosure of the PRC.

51. Map - Insert 6: Provo River Water Users Association needs to be consulted re: connection of the ULS pipeline to the PRC.

52. Appendix A, Environmental Commitments No. 41 should address that Diamond Fork systems environmental commitments should not be addressed through water supplied from the Provo River.

53. Appendix A, Environmental Commitments No. 52: The PRRP affects PRP operations. PRP should be consulted re: Provo River Restoration Project activities and operations and maintenance.

United States Department of Agriculture | Forest Service | Uinta National Forest | 88 West 100 North
P.O. Box 1428
Provo, Utah 84603
801 342-5100

**File Code:** 1950-4
**Date:** June 10, 2004

Mark Breitenbach
Project Manager
Central Utah Water Conservancy District
335 West University Parkway
Orem, UT 84058-7303

Dear Mark:

My staff and I have reviewed the Utah Lake Drainage Basin Water Delivery System (ULS) Draft Environmental Impact Statement (DEIS). We support the needs for the Preferred Alternative that were described in the DEIS. Specifically in relation to the Uinta National Forest, we believe the restoration of more natural flows in the Spanish Fork River, improvement of habitat conditions for June Sucker in Hobble Creek and Lower Provo River, and implementation of water conservation measures would benefit Uinta National Forest resources. The following are the Uinta National Forest's specific comments on the DEIS:

**Possible Future Actions Not Included in the Cumulative Impact Analysis** – The discussion of Diamond Fork Creek Restoration (Pages 1-154 to 1-155) appropriately acknowledges the Mitigation Commission's involvement, commitment and responsibility for restoration of Diamond Fork Creek. However, the discussion inappropriately fails to mention the Forest's shared involvement, commitment, and responsibility in this matter.

**Visual Resources** – The Forest Service is concerned about possible visual effects associated with this project; particularly those created by Sixth Water Power Facility, Upper Diamond Fork Power Facility, and Sixth Water Transmission Line. The DEIS accurately and explicitly notes that the Preferred Alternative would have long-term detrimental impacts to scenic resources on the Forest, and these impacts are not consistent with visual quality objectives in our 2003 Land and Resource Management Plan (Forest Plan). As displayed (Page 5-59) and described in the Forest Plan, the Diamond Fork power facility would lie within a corridor managed to emphasize dispersed recreation opportunities. A major consideration in managing to emphasize dispersed recreation is maintenance of quality scenery.

Pages S-7 and 3-332: The DEIS incorrectly describes the visual quality objective for the Sixth Water Transmission Line, substation, and Upper Diamond Fork power facility as 'retention'. In 2001, no man-made features dominated the landscape but some evidence of human modification in the form of fences, corrals/shelters and roads existed. Based on that, and uses of the area, the Forest determined that the area containing the project facilities met (i.e., was inventoried as having) the 'retention' Visual Quality Objective (VQO). However, after considering management goals (including CUP and other resource uses), objectives, and desired future conditions,

the 2003 Forest adopted a VQO of partial retention for the area encompassing these ULS project facilities.

In areas with a partial retention VQO, management activities remain visually subordinate to the characteristic landscape. Management activities should repeat form, line color, or texture common to the characteristics landscape; however, structures can introduce, form line , color or texture that are not found infrequently or not at all in the characteristic landscape. Reduction in form, line, color, and texture to meet a partial retention VQO should be accomplished as soon after project completion as possible or at a minimum, within the first year after completion.

Construction of the power plant facilities due to the proposed slope cuts, grading and type of buildings being proposed, would result in dominant elements in the foreground view from the Diamond Fork Road, a major Forest access route with a large number of users having substantial concern about scenic quality. This would be inconsistent with Forest Plan VQO of partial retention. Facility buildings and surrounding fences could possibly meet partial retention VQO's, if they better borrow colors, textures, and scale from the existing landscape character. A more natural shaping of the topography and use of native rock could help the facilities blend more with the natural landforms of the canyon. We recommend adopting concepts from the *Built Environmental Image Guide* (2001) in facility design and in the selection of construction materials and color.

DEIS, Page 1-131 to 1-132: The transmission line and substation also lie in an area with an adopted VQO of partial retention. Many reaches of this power line would be evident from the Sheep Creek-Rays Valley Road (FR #051), another major Forest access route with large numbers of scenic quality sensitive users. The intrusion of the transmission line would be particularly evident due to the absence of screening vegetation in this non-forest ecosystem, and due to the close proximity to FR #051. These impacts will be exaggerated by proposed clearing of 37.5 acres vegetation within the existing corridor and the additional clearing of 56.2 acres proposed for the transmission line. These impacts could be greatly mitigated by substantially reducing the proposed vegetation clearing/conversions, and locating of the substation in an area where it is screened from FR #051 users. The Forest Service suggests either incorporating mitigation to reduce the amount of transmission corridor clearing to a level similar to that found along transmission lines within the Highway 6 corridor, or exploring other alternatives or measures to mitigate, minimize or eliminate the impact on scenic resources. This is particularly important, considering that much of the project area occurs on Green River formation derived soils which are difficult and slow to visually recover from disturbances.

The DEIS also notes there will be visual quality impacts at the staging areas. However, the DEIS does not describe the effects of using these areas and does not describe the proposed rehabilitation of some of these disturbed areas; referring to a previous DEIS (which did not anticipate their use for power line, substation, or power production facility construction use). The DEIS should provide that use of these

previously-approved staging areas will be extended and describe the eventual restoration and visual mitigation that would occur.

Other: Any old power transmission lines or power poles, waste, or leftover construction materials should be promptly cleaned up and removed to an appropriate disposal site off of NFS lands.

Also, see the Special Areas discussion below.

**Cultural Resources** – Based on a review of the *Draft Cultural Resources Report for the Utah Land Drainage Basin Water Delivery System* and the DEIS, the Forest Service concurs that the project does not appear to adversely affect sites on National Forest System (NFS) lands (pending information on 42Ut1400, which probably will not be affected; see the discussion below). In general, the DEIS adequately describes the overall effects of the proposed alternatives on cultural resources. However, some specific information is missing and will be needed in order for us to fully comment on the eligibility of sites on NFS lands, the specific effects of the project on those sites, and whether or not adequate mitigation will be done to address those effects. The following comments address these concerns specifically and are organized by section in the report.

Section 3.5.1.1.1.A (Pages 27-28): Site 42Ut 649 is described in the draft report as a "US Forest Service Ranger Station." There are no Forest Service records of any kind which reference a Forest Service facility in this location. Its attached site form from 1989 correctly identifies this site as the location of a Spanish Fork Livestock Association herder's cabin. Several cabins of this size with concrete foundations were built in this area for use by the Association. No information in the report suggests why the site's function is interpreted in a different way than is indicated on the original site form.

In addition, the 1989 site form shows the site's National Register status as unevaluated at that time. However, the report now recommends that the site be considered Eligible for the National Register on the basis of adequate integrity, as well as Criterion A and D. No other information is provided in the report that would allow us to either agree or disagree with this recommendation, and there is no current addendum information with the 1989 IMACS form. We request that additional information (in the form of a site form addendum) be provided for this site that more fully explains why the site is recommended Eligible under both Criterion A and D.

Site 42UT1400 is incorrectly described as being in Ray's Valley; it is in Spanish Fork Canyon, at the mouth of Sheep Creek. The report recommends that the site be considered Eligible under Criteria D, but we cannot fully evaluate the site's information potential recommendation because Part A (with its justification statement) for the site is missing from Appendix D. Part B states that the site appears not to have any depth, so the information potential would appear to all be from surface deposits. As such we wonder about the site's actual potential to yield important information about use of the Sheep Creek Road, as the report states. We

request a copy of Part A for 42UT1400, and perhaps more specific information on the site's information potential, if that information is not already provided on Part A.

Section 3.5.1.1.1.B (Page 28): The report identifies an old section of the road up Sheep Creek as a potential historic resource and recommends that it be considered Eligible for the National Register under Criterion A. However, no site form of any kind was included with the report. As a result, we cannot either agree or disagree with the sites eligibility recommendation. We request that a complete copy of either an IMACS or Historic Site Form be sent to us for that site.

Section 4.3.1.1.1.A and B (Pages 51-52): Site 42Ut649 is referred to as the "historic Ranger Station" in this section. Again, we disagree with this identification. We do agree that the treatment recommended for both this site and the historic Sheep Creek Road during construction would result in "no affect" on the sites from the project.

This section does not address the potential effect of the power line project on site 42Ut1400. We request that this information be provided.

Section 5.1.2 (Page 55): This section, which pertains to monitoring, references "areas of cultural sensitivity." Do these include areas which might contain prehistoric sites? There are no references in the document to American Indian site sensitivity and the document might be strengthened by an explicit statement in this section about monitoring in areas which might contain ancient American Indian sites.

Section 3.13.1 (Page 215): Although the introduction includes traditional cultural properties and sacred sites as topics, it does not actually discuss them in the cultural resources section (see also the comments below on Section 3.24). The document would be strengthened by a statement that specifically addresses the apparent absence of these kinds of sites from the project area. It also does not explicitly address the National Historic Preservation Act side of Tribal Consultation.

Section 3.1.13.7.2.1 (Page 3-217): This section identifies 42Ut649 as a Forest Service Ranger Station; again, all current information suggests that this is a Spanish Fork Livestock Association Cabin.

Section 3.13.8.3.1.1.A (Page 3-221): Again, 42Ut649 needs to be correctly identified. This section does not address potential effects to 42Ut1400; that information needs to be added.

Section 3.24 (Pages 3-319 to 3-323): This section does a good job of addressing the potential effect of the project on Indian Trust Assets, and describes a series of meetings with Tribal groups. However, nowhere in either this section or the cultural resources section (3.13, pages 3-215 to 3-223) does the DEIS address potential effects to sacred sites or traditional cultural properties (although Section 3.24.1 [page 319] does acknowledge that some reserved rights may include traditional cultural properties). The document needs to explicitly address the potential effect of the

project on sacred sites and traditional cultural properties, and whether or not Tribes were specifically asked to consult on the effects to those kinds of sites and location (as required by NHPA).

**Bio-Physical Resources** – The DEIS does a thorough job describing the proposal's effects on water resources in Hobble Creek, Provo River, Spanish Fork River and Utah Lake. However, the DEIS does not describe the effects of power facility, substation, and transmission line construction activities (including continued disturbance of existing staging areas, see page 1-72) on water quality and aquatic resources (specifically including fisheries and macroinvertebrates) in Diamond Fork Creek and Sixth Water Creek. Though we expect, with the application of BMPs, that these impacts will be minimal, major construction activities will occur in close proximity to the streams and these will very likely result in some, albeit minor impacts. These effects should be evaluated and disclosed.

As noted in the DEIS (Page 3-169), Bonneville cutthroat trout are a Forest Service sensitive species and this species inhabits Diamond Fork Creek, Sixth Water Creek, and other Diamond Fork Creek tributaries crossed by the transmission line. The DEIS (Page 3-174 to 3-175) eliminated analysis of impacts on this species because it is *"not known to occur in the impact area of influence or their habitat would not be affected by construction or operation of any of the ULS project features or alternatives."* However, as the species occurs in streams directly adjacent to or crossed by project facilities, and activities are planned that have potential to impact water quality or habitat in these streams; we suggest the EIS disclose the effects and the basis for reaching that determination.

The Uinta Forest Plan contains direction to ensure protection of water and aquatic resources. Some of these, and other suggested mitigation measures are summarized below:

- Minimize construction activities and equipment crossing of Riparian Habitat Conservation Areas (RHCAs). Avoid removal of mature cottonwood and other established large woody riparian vegetation in the Diamond Fork Drainage.

- Obliterate, successfully revegetate, and shore access to all temporary roads and staging areas associated with construction activities.

- Clearing, grading, and other disturbances to soil and vegetation should be limited to the minimum area required for construction activities. Clearing practices should minimize removal of root systems in brush and shrub lands and areas where remaining roots may temporarily provide stability. Any long-term maintenance or access roads should be adequately engineered to disperse overland flows and minimize erosion.

- Install temporary erosion controls immediately after initial disturbance of the soil. The DEIS implies (Page 1-135 to 1-136), but does not explicitly require, maintenance of erosion control measures. Temporary erosion controls must be

properly maintained throughout construction and reinstalled/maintained as necessary until replaced by permanent erosion controls or restoration is complete.

- The DEIS provides for use of hydro-mulching. In our experience, hydro-mulching is less effective, and shorter-lasting than dry seeding and mulching. On NFS lands, hydro-mulching should be limited to sites approved by the Forest Service. Similarly, the DEIS refers to using up to 3 tons/acre of mulch (It is unclear if this statement applies to dry or hydro- mulching) on steep slopes within 100 feet of water bodies. Our experience and recent research on burned areas indicates lower dry mulching rates (1.5 to 2 tons/acre) are essentially as effective in curtailing erosion, and more conducive to revegetation efforts.

- The DEIS appropriately states that only certified noxious weed free straw or hay may be used. On NFS lands, this should be expanded to include other undesirable species not currently included on the State of Utah's noxious weed list (e.g., cheatgrass).

- Forest Service policy requires use of native species on NFS lands. The DEIS states that where possible. Seed mixes to be used and/or species to be planted on NFS lands should be approved prior to their purchase and use by the Forest Service.

- The DEIS notes that seeding will be done in "consultation with Utah Division of Wildlife Resources or other government entity." (Page 1-136) On NFS lands, seeding should be done in consultation with the Uinta National Forest.

- The DEIS requires noxious weed surveys for the fall and spring following initial seeding. (Page 1-143) In our experience, resident weeds continue to show up several years following initiation of revegetation, and weed treatment. Weed monitoring (e.g., surveys) should be continued for at least 3-5 years following seeding.

- The DEIS does not identify any predicted impacts to fences or other infrastructure (e.g., gates or cattleguards). Gates, cattleguards, or fences could be impacted by construction and/or operational activities (e.g., vehicles accessing the transmission line), and any of these impacted should be promptly repaired or replaced.

**Special Areas -**

Wild and Scenic Rivers: The transmission line crosses Fifth Water Creek, a stream identified in the 2003 Forest Plan as eligible for consideration as a Wild and Scenic River (Page 5-48 and 5-59). The Forest Plan allows uses which are compatible with retaining the free-flowing character and outstandingly remarkable scenic character and recreational values of this reach. This includes guideline MP-2.2-6 (Forest Plan, Page 3-40) which states "Vegetation management activities are allowed only if they

maintain or enhance the scenic setting." Considering the special status of this area (extends ¼ mile either side of 5th Water Creek), additional vegetation clearing in this reach should be restricted to the bare minimum needed to allow safe installation and operation of the new transmission line. The effects of the project on the potential eligibility of this river segment should also be discussed and disclosed in the EIS. (Also, you may wish to refer to Appendix D in the *Final Environmental Impact Statement for the 2003 Land and Resource Management Plan for the Uinta National Forest*).

Roadless Areas: The transmission line being considered for replacement lies within an inventoried roadless area (#418016, see Page C – 115, Appendix C, *Final Environmental Impact Statement for the 2003 Land and Resource Management Plan for the Uinta National Forest).* The proposed transmission line construction activities (particularly the clearing) could impact the roadless and potential wilderness character of this area. These impacts could be reduced by reducing the proposed clearing as described previously. Irregardless, the effects of the alternatives should be evaluated and disclosed in the FEIS.

**Recreation** – The DEIS is not clear as to how winter operations for the power generation facilities would occur. In the past, snowmobiles have used the upper reaches of the Diamond Fork drainage. With construction of the power facilities, year-round vehicular access may be needed. The DEIS should describe what winter access would be needed, and the impact of this on snowmobile access and use in Diamond Fork drainage?

The comments provided above were based on a review of the DEIS and technical reports that the Forest was provided. This represents a compilation of the comments generated by our Interdisciplinary Team.

In summary, our IDT commends the Central Utah Water Conservancy District, Department of Interior, and Utah Reclamation Mitigation and Conservation Commission on the quality of this DEIS. We support the preferred alternative, and look forward to working with the joint lead agencies in implementing the proposed action, should it be approved. In addition, we encourage the joint lead agencies to strongly consider the issues raised above. If you have questions regarding these comments, please contact Reese Pope at (801) 342-5104.

Sincerely,

for PETER W KARP
Forest Supervisor

cc: Karen Hartman, William Ott

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

June 9, 2004

Mark A. Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058-7202

Dear Mr. Breitenbach:

We have completed our review of the Draft Environmental Assessment (DEIS) for Utah Lake Drainage Basin Water Delivery System. We are responding on behalf of the U.S. Public Health Service, U.S. Department of Health and Human Services.

We have reviewed this document for potential adverse health and safety effects on human populations. Overall, we agree that the proposed project will have a positive effect with the improvements that are proposed and the mitigation measures planned.

While the document does discuss many of our potential public health and safety concerns, we believe there are several additional issues that should be addressed in the final document (FEIS).

It was unclear what environmental compliance inspection procedures would be followed during construction. In similar projects, experienced Environmental Inspectors are assigned to monitor construction activities and ensure that appropriate all construction activities are in compliance with applicable federal, regional, state, and local environmental permits and approvals. Please clarify how environmental inspections and construction monitoring will be accomplished.

We also believe that the FEIS should also address spill potential during construction. A Spill Prevention and Control Plan should be considered. The plan should include, but not be limited to: precautionary measures to prevent spills; sources of spills, such as equipment failure or malfunction; standard operating procedures in case of a spill; and appropriate training for all construction personnel.

We also have a concern for safety during construction.. The FEIS should contain a statement of compliance with appropriate criteria and guidelines to ensure safety and health for both workers and the general public

Thank you for the opportunity to review and comment on this DEIS. We would appreciate receiving a copy of the FEIS when it becomes available, and also any future environmental impact statements which may indicate potential public health impact and are developed under the National Environmental Policy Act (NEPA).

Sincerely yours,

Paul Joe

Paul Joe, DO. MPH
Medical Officer
National Center for Environmental Health (F16)
Centers for Disease Control & Prevention

**Comment Letter No. 18**

Mr. Mark Breitenbach
ULS Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, UT 84058-7303

Dear Mr. Breitenbach:

Thank you for supplying Western Area Power Administration with copies of the Draft Supplement to the 1988 Definite Plan Report for the Bonneville Unit (DPR) and the Draft Environmental Impact Statement for the Utah Lake Drainage Basin Water Delivery System (ULS DEIS) for Western's review and comments.

Our review and comments have concentrated on the Draft Power Appendix to the DPR since the Appendix directly addresses the hydropower aspects of the ULS proposal. To the extent that Western's comments affect other sections of the DPR and the ULS DEIS, we request that you revise those documents accordingly. Western may have additional comments once we have fully reviewed all volumes of the EIS.

Detailed Comments to the Draft Power Appendix:

Page 1-1, second paragraph: Change "The Western Area Power Administration (Western) would market all of the project power generated at these two power plants." to "The Western Area Power Administration (Western) is investigating options to market project power generated at these two power plants."

Page 1-1, second paragraph: We suggest adding discussion about what would happen if Western chose not to market the power output or was unable to find sufficient interest in purchasing the power plant output.

Page 1-4, second paragraph: Change "Figure 1-1 is a map of the six western states of the United States that receive the bulk of power marketed by Western." to "Figure 1-1 is a map of the six western states of the United States where Western markets power from the SLCA/IP."

Page 1-7, second paragraph: Replace the existing paragraph with the following: "Western is investigating options to market the power from the project. Options include integrating the power into the SLCA/IP and delivering it to existing firm-power customers; marketing power to a subset of the SLCA/IP firm-power customers who are interested in receiving additional hydropower from Western; allocating the power to existing and/or new firm-power preference customers separately from the SLCA/IP; marketing the power to Federal facilities and other preference customers who have a requirement or interest in receiving renewable resources; or marketing the power to preference and non-preference entities using some combination of short- and/or long-term power sales contracts.

**Page 1 of 4**

Western will determine if and how project power would be marketed by consulting with firm-power customers and other interested parties."

Page 1-7, WESTERN'S TRANSMISSION SYSTEM FOR ELECTRICAL POWER: Replace the text in this section with the following. "The CRSP transmission system has approximately 2,400 miles of transmission lines that are used to deliver SLCA/IP power to firm-power customers located in Arizona, Colorado, New Mexico, Utah, and Wyoming. The CRSP transmission system is contained in the WALC and WACM control areas and is operated and maintained by Western offices located in Phoenix, Arizona, and Loveland, Colorado, respectively. The two control areas are interconnected with other control areas within the Western Electric Coordinating Council (WECC), enabling Western to buy, sell, and exchange power with a large number of public and investor-owned utilities in the western United States.

The proposed ULS power plants are located within the PacifiCorp control area in Utah. Western has an existing contract with PacifiCorp to deliver SLCA/IP and other Federal hydropower to firm-power customers located in Utah and eastern Nevada. Use of the PacifiCorp contract to deliver power from the ULS power plants is a possibility and would depend upon how and to whom Western decides to market the power. If the existing PacifiCorp wheeling contract was not able to be used, it would be necessary for Western to negotiate a separate transmission agreement for delivery of project power to customers."

Page 1-8, transmission map: This map is obsolete. Western can supply an updated map or the map could be deleted from the Appendix.

Page 2-3, Capital Cost: Change "38.1 kilowatt-hours" to 38.1 million kilowatthours".

Page 3-6, last sentence: Replace existing sentence with "Some details of the transmission facilities shown above could change depending upon how the project power was marketed and after negotiations with PacifiCorp for an interconnection with its transmission system."

Page 3-7, first paragraph: Was consideration given to sizing the Upper Diamond Fork power plant disregarding the 5,000 kW cable limitation? If so, would a power plant larger than 5,000 kW have a higher Net Present Value that could offset the cost of replacing the existing cable with a larger capacity cable? If this analysis was performed, please include an explanation in the text of this section.

Page 3-8, third paragraph: The bulleted comments attributed to Western may be from Reclamation instead.

Page 4-15, third paragraph: Please add text to this paragraph explaining that the transmission system additions detailed in this section are included in the ULS project construction costs and do not constitute a separate portion of the project constructed and funded by Western from CRSP power revenues.

Page 6-1, first paragraph: Please add text to this paragraph explaining that any transmission system additions required by the proposed facilities in Chapter 6 are included in the Bonneville Unit project construction costs and do not constitute a separate portion of the project constructed and funded by Western from CRSP power revenues.

Page, 6-1, first paragraph: There is no explanation how the $0.026 per kilowatthour cost for project pumping power was developed. The current cost of SLCA/IP power is 20.72 mills per kilowatthour.

Chapter 7: The features described in this EIS are part of a water delivery system. Electrical power production is entirely incidental to this undertaking. Therefore, the costs that should appropriately be allocated to electrical power should be only the incremental costs associated with adding power facilities. Western should be given the "first right of refusal" to purchase and market the electrical power from these facilities at the incremental cost of adding them.

This is consistent with the fact that this water delivery system is for M&I purposes. M&I water users are required to pay the full costs of water delivery. Electrical power revenues collected from the sale of power added to this water delivery system should not be used to defray any of the costs of water delivery to M&I users.

Page 7-7, first paragraph: Change "The Western Area Power Administration (Western) through the Upper Colorado Power System will market energy from the project power plants." to "The Western Area Power Administration (Western) is investigating options to market all of the project power generated at these two power plants."

Page 7-8, second full paragraph: Replace "Western will reimburse these costs annually from power revenues. Additional OM&R costs for transmission and marketing will be the responsibility of Western" with "The power OM&R costs would amount to about 8 mills/kWh and would increase as OM&R costs escalate in the future. Added to the 37 mills/kWh of fixed costs assigned to power, the total cost of the hydroelectric power would be about 45 mills/kWh ($45/MWh). Western would be responsible for reimbursing that cost, for any additional costs for wheeling the power to customer(s), and for its administrative costs associated with marketing the power." Also, what is the basis for the estimate of 8 mills/kWh? Western is concerned about the ability to control the O&M cost component if Western were to market the power from the project and the District performs the O&M of the facilities.

Comment on F&E Appendix to DPR:

Chapter 7, page 9, Power Users' Obligation: The power users' obligation should be reduced from $271.3 million ($274.9 million in Table 7-10) to account for the 20,000 acre-feet of "temporary irrigation water" that will ultimately be converted to M&I water. M&I water should repay the full cost of this water estimated to be 20,000 divided by 62,000 times the Table 7-10 amount of $274.9 million which is $88.0 million.

Power would then be responsible for repayment of the residual ($186.9 million) $274.9 minus $88.0 million.

Please direct any questions about these comments to Sam Loftin at (801) 524-6381.

Sincerely,

Bradley S. Warren
CRSP Manager

4

cc:
Mr. Arlo Allen
UC Region, Bureau of Reclamation
125 South State Street, Room 6107
Salt Lake City, UT 84138-1147

Ms. Leslie James
Executive Director
Colorado River Energy Distributors Association
4645 South Wendler Drive, Suite 111
Tempe, AZ 85282

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# United States Department of the Interior

BUREAU OF RECLAMATION
Upper Colorado Region
Provo Area Office
302 East 1860 South
Provo, Utah 84606-7317

IN REPLY REFER TO
PRO-700
ENV-6.00

Mr. Mark Breitenback
Project Manager
Central Utah Water Conservancy District
335 West University Parkway
Orem, UT 84058-7303

Subject: Comments on the Draft Environmental Impact Statement for the Utah Lake Drainage Basin Water Delivery System

Dear Mr. Breitenback:

Enclosed are comments on the Draft Environmental Impact Statement for the Utah Lake Drainage Basin Water Delivery System.

The Bureau of Reclamation has appreciated the efforts of the Central Utah Water Conservancy District, Utah Reclamation Mitigation and Conservation Commission, and the Department of the Interior Completion Act Office to coordinate and answer questions regarding this project. We appreciate the opportunity to provide comments on this document.

If you have any questions regarding this matter, please feel free to contact Mr. Kerry Schwartz at 801-379-1150. Thank you for your consideration of these comments.

Sincerely,

ACTING FOR Bruce C. Barrett
Area Manager

Enclosure

2

cc: CUP Completion Act Office
Attention: CA-1200
302 East 1860 South
Provo, UT 84606

Regional Director, Salt Lake City, UT
Attention: UC-100 and UC-105
Manger, Resources Management Division, Salt Lake City, UT
Attention: UC-420
Manager, Environmental Resources Division
Attention: UC-700 and UC-720
(each w/ encl)

**Comments on Draft ULS EIS**

| | |
|---|---|
| General | The characterization of the No Action Alternative and its impacts is confusing. Rather than comparing the Action Alternatives to the No Action Alternative, to enable the decisionmaker to assess the consequences of implementing a particular alternative, all of the alternatives are compared to a baseline that is defined as the existing environment today. Considerable clarification is needed to demonstrate that the No Action effects are indeed those effects that will occur if neither Action Alternative is implemented. To inform the decisionmaker and the public, the effects of the Action Alternatives need to be compared to No Action in order to ascertain the differences to the future environment. |
| General | Do 'find and replace' for right-of-ways with rights-of-way. ('Rights-of-way' is the more common expression of the plural). |
| Cover Sheet | In the fourth line, change the word, "purchase" to "acquire." |
| S.2 | What authority exists to protect water quality of surface and underground water resources? |
| S.3.1 | Second paragraph talks about associated transmission facilities of the Diamond Fork System. What transmission facilities currently exist? (same comment in the first paragraph of section S.3.2) |
| S.5.1.8.1 | Change the word "weighted" to "wetted" in the first sentence. |
| S.5.1.11.2 | Are the $72 million in direct impacts considered to be a beneficial impact? |
| S.5.1.12 | This sections reference adverse effects; recommend that these sections include any proposed mitigation as this would be useful information for an executive summary. |
| S.5.1.12 | In the third line, change to read as follows, "...and the Provo Reservoir Canal commonly known as the Murdock Canal in Orem." |
| S.5.1.13 | This section references adverse effects; it is recommend that these sections include any proposed mitigation as this would be useful information for an executive summary. |
| S.5.1.15 | This section contains nothing that serves to characterize or summarize impacts. |
| S.5.2.1 | Does reference to Olmsted mean diversion, flowline, tunnel, or all of these? |
| S.5.2.3 | First sentence, are these figures (kaf) on an annual basis? |
| S.5.1.19 | This section does not list all of the impacts to power that is later described in the document. |
| S.5.2.11.2 | First sentence--are these beneficial impacts? Salaries? |
| S.5.2.11.3 | It would be helpful to name relevant towns where these impacts would occur. |
| S.5.2.11.4 | It is unclear how this paragraph/section differs from S.5.2.10, Agriculture and Soils. |
| S.5.2.11.5 | Should these impacts be characterized as beneficial? |
| S.5.2.15 | This section contains nothing that serves to characterize or summarize impacts. |

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| S.5.2.17 | First sentence, it would probably be more accurate to characterize the daily traffic as a significant *short term* impact. |
| S.5.3 | Since the No Action Alternative describes what will occur if the government 'does nothing' on the proposed action, this alternative should be more clearly described as the future reality against which action alternative impacts are to be compared. |
| S.5.2.19 | This section does not list all of the impacts to power that is later described in the document. |
| S.5.3.2 | Overall, impacts should be characterized as to whether they are good, bad, or indifferent. There is inconsistency among resources as to impact characterization. |
| S.5.3.6 | The No Action Alternative is described as 'causing' significant impacts. The emphasis should be that if the proposed action is not implemented through one of the action alternatives, these are the impacts that will occur. As written, it appears that the correct characterization is that under No Action, there will be degradation of wetland wildlife habitat, and thus there will be beneficial impacts for this resource under one or more action alternatives. |
| Table S-3 | How are these numbers derived? For example, why does it cost so much for a new water resource if you converting an existing irrigation surface water to M&I? It would be helpful to the reader to list a citation of where these numbers came from. |
| Map 1-2 | This map gives the erroneous impression that Deer Creek Reservoir is part of the Bonneville Unit. |
| 1.1.2.1.3 | Line 10 should be modified to read "...Northern Ute Tribe of the Uintah and Ouray Reservation..." |
| 1.1.2.5 | You may want to provide an update in the FEIS on the status of Diamond Fork System operations. |
| 1.1.2.6 | The text should be, "NEPA Documents" rather than "NEPA Compliance Documents." |
| 1.2 | One project purpose is, "participate in the implementation of the June Sucker Recovery Implementation Program"--but what about the broader public and ESA purpose of removal of jeopardy from the June Sucker? |
| 1.2 | Purpose and Need, in the body of this section, would suggest listing the purposes first to be consistent with the heading. |
| 1.2.1 | This section is meant to explain the project needs but does not tie that information back to the specific needs. |
| 1.2.1.3.2 | Revise the second sentence of 1st bullet to read, "That ROD specified that this EIS would address the impacts associated with any additional Utah Lake System Facilities and will incorporate and address all remaining and incomplete commitments contained in the various CUP NEPA documents including previous ROD's." Same section, next to last bullet which is on p. 1-29 does not match the other bullets in that it refers to FWS action in preparing an amendment to a BO, which is not an environmental commitment. |

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| 1.4.2.1 | Please clarify who would be buying, selling, and using the power generated as part of the action alternatives. |
| 1.4.2.2 | Shouldn't the last sentence say the existing 25 kv cable would be connected through a step up transformer to the upgraded transmission line at the 6th Water Power Facility Substation? |
| Figure 1-2 | Replace this figure with one that is closer to scale representation. |
| 1.4.2.7 | The EIS correctly states, as was previously suggested, that the EA and FONSI for the PRC Enclosure project have been completed by Reclamation. However, the EIS appears to assume that the canal will be enclosed- this is PRWUA's intent but it is guaranteed. Section 1.4.2.7 states that the Spanish Fork-Provo Reservoir Canal Pipeline will be hooked up to the 'enclosed' PRC. Can and will that connection occur if the PRC is not enclosed? |
| 1.4.2.7 | Related to #5, the EIS needs to note that even though Reclamation authorized the enclosure, another related action, title transfer, would render Reclamation's authorization moot—the new owners would be able to enclose the canal at their option. |
| 1.4.2.7 | Will the new pipeline and remaining open canal be a Central Utah Project feature? |
| 1.4.3 | Include federal land in the list of land required to construct and operate the features of the Preferred Alternative. |
| 1.4.4 | This section should reference the SOPs in Section 1.8. |
| Figure 1-9 | Rename this figure to "Typical Pipeline Trench for Construction in U.S. Highway 6 Shoulder." |
| 1.4.5, 1.5.5 | Although construction of 50 MW of new hydroelectric power capacity is part of both action alternatives, the EIS is silent on the impacts of power generation. If the new capacity is not built, is the difference to be made up by power from other hydro units or fossil fuel fired plants? Either way impacts would be expected. The alternatives descriptions do state that the new units would be dependent on whatever flows they get, more information is needed on whether there are impacts for each of the action alternatives. Table 2-1 states that for both action alternatives, Strawberry Electric power generation revenues would decrease by 1.2%, but there is no explanation as to the reasons for that impact, nor is there any presentation of overall differences/effects for power generation. Power should be addressed as a separate resource in Chapter 3. |
| 1.4.5.6 | It shouldn't be an isolated phase-bus, but a medium voltage isolated phase-bus or medium voltage cable. In this paragraph it is not a low voltage cable but an existing 25 kv cable. |
| 1.4.9.1 | The last sentence of the first paragraph should be modified as follows, "...delivered to farmers, cities, and used for power generation in southern Utah County..." |
| 1.4.9.4 | Section 1.4.9.4 on page 1-77 states that "If the enclosure project does proceed with Section 207 funding, this EIS provides the necessary NEPA compliance and would require 8,000 acre-feet of water to be returned to |

DOI." If the ULS EIS is intended to provide compliance for the District's proposed action under Section 207, then that proposed action- issuance of 207 funding- needs to be included in the statement of the proposed action and the statement of purpose and need. Further, the effects to June sucker of the saved water would need to be discussed in the T&E impacts section. The EIS would also need to discuss the no action effects. For example, what happens if PRWUA decides not to seek the 207 funding, or the District decides not to provide it, and the 8000 a.f. is not available? Will there be separate NEPA for Section 207 funding for Springville Mapleton Lateral?

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| 1.4.10.3 | It is unclear whether this discussion includes flows that come from the saved water discussed elsewhere (same comment for 1.5.10.3). |
| 1.5.8 | Is there a construction staging area that would be used in the preferred alternative that applies to this discussion? |
| 1.5.9.3.1 | Similar comment as 1.4.9.4. |
| 1.5.10.3 | This section infers that someone other that the River Commissioner would be responsible for monitoring the flows in the river. This section should add a statement that says that the River Commissioner is responsible for monitoring the flows. |
| 1.8.3.1 | Second line--these dates do not match the construction schedule provided in Table 1-24 on p. 1-124. |
| 1.8.8.8 | SOPs for construction should include an inadvertent discovery clause, Reclamation can provide text if desired. |
| 1.8.8.9 | Section 1.8.8.9 states that a paleontologist will be hired to handle possible discovery of paleontological resources. Are there any other technical specialists that will be hired (i.e. archaeologist)? There are no SOPs specific to construction of power generation facilities, should there be? |
| 1.8.8.13 | SOPs for air quality should include a clause to the effect that there would be no unnecessary idling of vehicles or construction equipment; see language in Sec. 1.9.8.14 regarding energy conservation. |
| 1.9 | Table 1-36 (p. 1-146) and Table 1-38 (p. 1-149) reference the requirement for an ESA Section 7 consultation. This should be explained in the text as well. Is formal consultation required? Does this EIS also serve as the BA? Do the T & E analyses for each alternative conclude with a determination of "no effect" or "may affect, not likely to adversely effect"? |
| 1.10.2 | Section 1.10.2, Possible Future Actions Not Considered in Cumulative Impact Analysis, states that the Highway 6 upgrade is not included because funding is not secure and potential construction is considered too speculative to be analyzed. However, Section 1.7 states that the Highway 6 work will happen after completion of the EIS and that if the UDOT schedule can be accelerated; the Spanish Fork Pipeline would be constructed concurrent with the highway work, thus minimizing environmental impacts. The statements in 1.7 imply that enough is known about the project that it could, and should, be included in |

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| | cumulative effects, especially since the claim is made that it would serve to minimize impacts. |
| 1.10.2 | Section 1.10.2, the paragraph on title transfer should be updated to note that a draft EA has been issued for public review and comment in May 2004. |
| 1.10.2 | Section 1.10.2 discusses a "Provo Reservoir Canal Trail" proposed as a 12-mile-long trail between Orem and Lehi along the PRC, to be constructed between 2011 and 2020. Reclamation has not authorized such a trail, nor has Reclamation received any formal request to consider such a trail. We therefore question its inclusion as a formally proposed project. |
| 1.10.3.2 | Section 1.10.3.2 states that the PRC will be enclosed prior to ULS construction. This is questionable—completion of the enclosure of the canal is unknown. |
| 3.2.6.1 | The assumption stated on page 3-13, "Historical releases associated with the 7,900 acre-feet of Indian Ford water acquired as part of the M&I System water supply would remain in the lake and be exchanged to Jordanelle Reservoir", is accurate. It can be exchanged to Jordanelle. However, this purchase and exchange would take the place of other water exchanged (Strawberry releases, other water rights in Utah Lake, return flows, etc.) and would not increase the amount of water in Jordanelle and therefore not replace the water supply lost from not implementing the Indian Ford Exchange, as identified in the original plan. |
| 3.3 | Please explain how the period of record was selected for the water quality data and hydrology. Explain the significance of the elevated phosphorus in Utah Lake and lower Provo from the action alternatives. The hydrological analysis should be extended to the present. |
| 3.3.7.11.1 | The total annual inflows of water to Utah Lake that are discussed are not consistent. In Tables 3-5 and 3-6 on page 3-33, the estimated historic baseline inflow is 558,248 acre-feet, and estimated simulated baseline inflow is 588,175 acre-feet per year. Page 3-38 states that the average flow to Utah Lake is approximately 700,000 acre-feet per year. Page 3-42 indicates the average inflow is 579,620 acre-feet per year in Table 3-15, and shows the same total average inflow in Table 3-16; however, the actual total of the inflow sources in Table 3-16 adds up to 847,000 acre-feet. Please check the figures and make adjustments as appropriate. |
| 3.3.8.2 | In Table 3-13 on page 3-40, the State of Utah water quality standard for selenium for Class 1C - Domestic, and for Class 4 - Agriculture are incorrect. The standard for both is 0.05 parts per million (ppm), not 0.05 ppb (parts per billion) as shown. Please correct. |
| 3.9 | The Section 7 consultation process as it applies to this proposed action needs to be explained in the EIS. |
| 3.9.5 | Map 3-2 does not show the overall impact area of influence, it just shows surface water. |
| 3.9.6.1 | Check this reference—Appendix E only gives T&E assumptions. |

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| 3.9.6.2 | Check this reference—Appendix E simply refers the reader back to information in the body of the EIS. It may be easier to cite the information in this section rather than referencing it. |
| 3.9.8.3.2.1 | This section needs to speak to the benefits of saved water for the June sucker. This section should state that because of the saved water, the proposed action would be expected to benefit the June Sucker. |
| 3.9.8.5.2.1 | Same as previous comment. |
| 3.12.3 | Second response up on 3-195 should be "Definite", not "Definitive". |
| 3.12.7.1 | What relevance does Wasatch County growth has to this EIS? Why is it included? This comment also applies to 3.12.7.4 about housing and property values. |
| 3.12.7.5 | Second paragraph – this sentence needs punctuation or a modifier somewhere; it doesn't make sense as written. What's it trying to say? Last paragraph – The end-user water rates are a pretty important figure to have in the Socioeconomic impacts section, but the ones given here aren't particularly helpful. The $1.05 - $1.75 / kgal figure includes *some* secondary, but not all? Is there a better figure that separates these, given that their costs are usually quite disparate? Also, the rate given for the separate secondary systems should be given in $ per kgal as well, for ease of comparison. |
| 3.12.7.7 | Second paragraph – Citation should be 3.15.7.3.4. Also, this figure means there are on average 360 anglers per day every day of the year on this stretch of the Provo. Given the magnitude of this number, it would be helpful to explain in greater detail how this estimate was arrived at, or refer the reader to where this detail can be obtained. Last paragraph, last sentence. Delete the word "economy." |
| 3.12.8.2.1 | The following potential impact was eliminated from analysis without any justification. Include a justification for eliminating: "Impacts of each of the ULS concepts on the economic value of environmental benefits, including increased natural resources such as increased outdoor recreation, renewable consumptive wildlife resources, and secondary economic benefits of these." |
| 3.12.8.3.1.1 | Third sentence – change from "1200 to 1800" to "1200 *and* 1800," or alternatively, take out the word between. Either way, the modifier should match the pronoun. |
| 3.12.8.3.2.2 | For consistency, add "the" prior to "significance criteria." |
| 3.12.8.3.2.3 | Last paragraph, last sentence change to "would likely exceed the significance criteria" to avoid redundancy. |
| 3.12.8.3.2.4 | Last paragraph, first sentence – move "about" to directly before the "$" symbol. |
| 3.12.8.5.2 | How can we state that both the Bonneville Unit Water Alternative and the No Action Alternative have the effect of increasing recreational fishing/angler days? If the increase happens under the No Action Alternative as well as the Bonneville Unit Water Alternative, then how can we hold that the Bonneville Unit Water Alternative is what would cause the impact? Same comment applies to 3.27.8.3. |

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| 3.13 | Bonneville Unit cultural resources predictive model prepared by Reclamation in 1986 was not cited in the cultural resources appendix and so was not included in the basis for the stipulations prepared with the SHPO. There must be a commitment to monitoring during construction of the Mona pipeline and other areas where the Bonneville predictive model indicated a high probability for subsurface sites. |
| 3.23.3 | Shouldn't this be Utah and *Salt Lake* counties? Same comment for 3.23.4. |
| 3.28.2.1 | Sixth bullet – should be "loss" not "lost." Same for 3.28.3.1 |
| 3.28.2.2 | Seventh bullet – take out the second "of." Same for 3.28.3.2 |
| 3.28.4.1 | Second bullet – should be "provide" not "provides." |
| 3.29 | Things like "temporary" losses of wetlands during construction are--temporary--and so they are neither irreversible nor irretrievable. Likewise, loss of orchard land, wildlife habitat, etc. is not irreversible or irretrievable under the CEQ definition. For example, paved roads eliminate habitat, but those paved roads can be torn up and habitat restored--thus not a 'permanence' threshold which is required for this section. The only things that are truly irretrievable are the materials, fuels, and funds. Loss of life is not appropriately discussed in this section; it belongs in the safety and health section. |
| 3.29.2 | Costs are only mentioned under irreversible and irretrievable commitments. The differences in cost associated with the $454 million preferred alternative versus the $184 million for Bonneville Unit Alternative is not clearly explained. It may be helpful to reference the costs that have been developed in the DPR. |
| 4.3.2 | Section 4.3.2 should reference the Endangered Species Act of 1973 'as amended.' |

**Cultural Resources Review**

Comments on Draft EIS for ULS – Cultural Resource

3.13 This section would be greatly improved by the addition of a table listing the known arch sites and historic properties by Smithsonian number/address found in each alternative and cross-referenced on map 3-2. Information on this table could include site number/address; site type; DOE; expected -effect (direct, indirect, cumulative, or none); what type of mitigation (data recovery, monitoring during construction, avoidance) is proposed for each. This information in a consolidated form, would be very useful to the reader i.e. tribes, SHPO, the general public.

If there are larger overall cultural resource mitigation plans for the entire project, it would be good to state those. Even though they will be spelled out in the MOA with SHPO, it would be good information for public knowledge.
Please define the difference between A. Archaeological sites, and B. Historic Sites/Properties.

For the West Union Canal vegetation removal – does that constitute an adverse effect? Is it a permanent effect?

For the Murdock Canal – does placement of a pipe "adjacent to" the canal constitute an adverse effect? How much of the total length be affected? Will it disturb the canal? Will these historic canals remain in place and left open, and be used for water catchments, wildlife and vegetation habitat, or winter livestock watering?

3.25.4.1 Was a "programmatic agreement" or an MOA (as stated in the draft cultural resources report) developed with the SHPO?

3.25.4.1.1 This section does not mention monitoring during construction by qualified archaeologists; however, it is mentioned in section 3.25.4.1.2. Please clarify.

3.26 There appear to be no Unavoidable Adverse Impacts to cultural resources. What about Warm Springs Spa site? The tech report states that it is eligible, and that the project pipeline will go through it? Please clarify.

3.27 If there will be no cumulative effects to Cultural Resources from this project, please state that in this section.

4.3.8 Has consultation with the tribes for cultural resources been conducted on a government-to-government basis? Possible issues concerning ITA's vs. cultural resources are very different, and should be separate consultations. A letter inquiring about TCP's does not constitute cultural resource management consultation with the tribes.

Comments on Draft EIS for ULS – Cultural Resource – Volume 2-Appendices

**Appendix G**

I.A.2. What are historic archaeological sites and pre-contact sites? Please use language consistent with what was used in the EIS.

I.A.3. Where are the summary of the views of the consulted tribes regarding 3 "pre-contact" sites? I did not see this information included in the Draft Cultural Resources Technical Report as stated here.

I.C. Will additional stipulations be added before or after signing of the MOA? At what point in this process will the consultations concerning TCP and/or sacred sites be conducted?

II.A.2. Clarify this stipulation.

Please include a stipulation to address possible impacts to cultural resources in case of a design change that has not been incorporated into this EIS/or under the present alternatives as designed.

III.A.1. All "pre-contact" sites *can* be avoided? Or *will* be avoided. Please be clear on whether or not they will be avoided and if not – please reference the "treatment plan" or what ever measure will be used to mitigate the impact.

III.A.2. When will the 'treatment plan" be developed? Prior to construction, in conjunction with the MOA or after the start of construction? Will there be a Plan of Action (POA) signed with the tribes regarding the handling of human remains should they be inadvertently discovered during construction? (See the NAGPRA regulations 36 CFR 10(c)(1)). Since this is such a long-term, geographically diverse project involving possible aboriginal lands with 5 different tribes, it would probably be a good idea to have that sort of document in place prior to construction.

III.A.5. Thirty days will probably not be sufficient time to let the tribes sign off on the document, unless you arrange to go before the council and present it in the form of a tribal resolution. I do not know if they will want to do that, or if perhaps a face-to-face, government-to-government meeting with the proper tribal officials to discuss the document, and answer any questions they may have, would help to facilitate the process.

III.A.14. Do you have curation agreements in place for these facilities? Be cautious about guaranteeing curation at any Utah facility now. They all claim to be full, with no possibility for taking in any further collections in the near

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future. Just make certain you can deliver on the statements you make in this MOA.

V. No mention of NAGPRA here?

Signatories The Ute tribal designation would be--Northern Ute Tribe of the Uinta and Ouray Reservation

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OF LATTER-DAY SAINTS

PHYSICAL FACILITIES DEPARTMENT
50 E. North Temple St. Rm. 1205
Salt Lake City, Utah 84150-6320
Phone: 1-801-240-3840
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April 19, 2004

Mark A. Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Provo, Utah 84058-7303

RE: Utah Lake Drainage Basin, Water Delivery System
Environmental Impact Statement March 2004

Dear Mark:

We have reviewed with interest, the "Environmental Impact Statement, dated March 2004". A portion of the report reviews an option to extend the Spanish Fork- Santaquin Pipeline 7.7 miles creating the Santaquin-Mona Reservoir Pipeline in order to provide a conservation pool in Mona Reservoir for a refugia. The purpose would be to address the June Sucker Recovery Implementation Program.

The Elberta Farms south area, owned by the Presiding Bishop of the Church of Jesus Christ of Latter Day Saints, a Utah Corporation Sole, is a major stock holder in the Current Creek Irrigation Company and is dependant on the flows provided by the Mona Reservoir for the operation of the Elberta Farms.

It is understood, from discussions with you on April 19, 2004, that the construction of the 7.7 miles of pipeline is the only thing covered in this EIS. You indicated that for this proposal to be developed additional studies with public review would need to be completed.

In the Environmental Impact Statement on page 1-45 paragraph 1.4.2.5 under the subtitle "Santaquin-Mona Reservoir Pipeline", it states the following,

"Before the steel pipeline could be constructed, a secure water supply would need to be identified and acquired and a carriage contract for such water executed by the June Sucker Recovery Implementation Program. A supplemental NEPA compliance document would be required to address the June sucker recovery implementation program's water supply, pipeline operation, operational plan for the conservation pool in Mona Reservoir, and determination that the pipeline is economically justified."

As a major stockholder in the Current Creek Irrigation Company, a privately owned company, it would be our desire to be involved in any future discussions that deal with the issues stated above as quoted directly from the Environmental Impact Statement.

Would you please include these comments as part of your public hearing process to be held on April 28-29, 2004.

Sincerely,
NATURAL RESOURCE SERVICES

Grant S. Cooper Jr. P.E.
Manager Water Resources Group

State of Utah

OLENE S. WALKER
*Governor*

GAYLE McKEACHNIE
*Lieutenant Governor*

Governor's Office of Planning and Budget
WES CURTIS
*State Planning Coordinator*

Resource Development Coordinating Committee
GLADE SOWARDS
*Committee Chairman*

JOHN A. HARJA
*Executive Director*

June 14, 2004

Mark Breitenbach, ULS Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058-7303

SUBJECT: Utah Lake Drainage Basin Water Delivery System
Project No. 04-3860

Dear Mr. Breitenbach:

The Resource Development Coordinating Committee (RDCC), representing the State of Utah, has reviewed this proposal. State agencies comments are as follows:

**Division of Wildlife Resources**

- Page 1-29, 1st paragraph: The 44,400 ac-ft of water discussed in this paragraph is dedicated to mitigate for impacts of the Strawberry Aqueduct and Collection System (SACS) on stream reaches above the confluence of the Strawberry and Duchesne rivers. It is the fate of this water volume downstream of the confluence that is uncertain. All parties involved in the current discussions should be aware of the prior SACS commitment. We suggest adding wording, such as "...SACS in-stream flow water *below the confluence of the Strawberry and Duchesne rivers.*" to further clarify the status of this water block.

- Page 3-88: Sections 3.6.7.3.2 thru 3.6.7.3.5 all refer to fish communities similar to that described in 3.6.7.3.2. These sections should refer back to section 3.6.7.3.1.

- Page 3-89: Section 3.6.7.3.11 states that recent data were not available. Although such data may not add anything of significance to the analysis of the alternatives, annual netting information from Utah Lake is available if deemed necessary.

- Page 3-103: Section 3.6.8.4.3.3 states that a moderate-to-high benefit is expected for macroinvertebrates in Hobble Creek. The summary section 3.6.8.4.4.3, however, states that the effect will be low-to-moderate.

- Page 3-131, Section 3.8.7.2.1: The species name for mink is *vison*.

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- Page 3-146, Section 3.9.7.3.1, 2nd paragraph: The 3rd sentence seems to suggest that June sucker have not been seen in the lower Provo since 2002. This is most likely a reflection of the date this section was originally drafted. June sucker have been observed in the lower Provo River in 2003 and 2004. The source of the info, UDNR 2003b, does not mention anything about when June sucker were last seen.

- Page 3-172, Section 3.10.7.2.9, 4th paragraph: There is a sub-population of Columbia spotted frog in Diamond Fork that is not included in this paragraph.

- Page 3-172, Section 3.10.7.2.10: The last sentence mentions that boreal toads have been found recently at Provo River near the Mapleton lateral (UDNR 2003a). We are not aware of toads at this location and suspect the citation may be erroneous. Please contact our Springville office for clarification if necessary.

- Page 3-174, "Potential for impact" criteria: There are spring discharge criteria for moderate and high potential, but none presented for low potential. Additionally, the criteria for moderate and high potential appear identical.

- Page 3-206, Section 3.12.7.7: The 2nd paragraph indicates that the only river segment that has public access and would be affected by the project is Provo River from the outlet of Deer Creek Reservoir to Utah Lake. Not all of the Provo River in this reach has public access; in fact, much of the reach from the Murdock Diversion to Utah Lake (through the Provo residential areas) has no public access. Also, some reaches of the Spanish Fork River have public access.

- Page 3-243, Table 3-84: The Spanish Fork-Provo Reservoir Discharge to Riverside Country Club, and Riverside Country Club to Tanner Race Diversion Dam segments of the Provo River have limited public access. Due to this lack of access, a five-fold increase in predicted angler days per year may be excessive. Perhaps these reaches should also be included in the asterisked notation along with the Spanish Fork River and Hobble Creek.

If you have any questions, please feel free to contact Eric (Rick) Larson, CUP Coordinator, at 801-538-4822.

**Division of Water Rights**

The Central Utah Project will be an important component on several river systems. The State Engineer would welcome the opportunity to integrate the operation of the project into the assignments of the river commissioners and also attempt to improve the overall effectiveness of the system in insuring the equitable distribution of water.

The river distribution systems, including Utah Lake, are operated under the direction of the State Engineer. The distribution of water and the associated reporting are an important part of the proposed Utah Lake Drainage Basin Water Delivery System Project.

There is a need to make reasonable and timely estimates of return flows associated with imported waters. The State Engineer believes the return flow factors (percent that returns to the system downstream) should be flexible so that changes in water delivery and application efficiencies, types of use, places of use, etc. can be factored into the return flow calculations in the future as the project is implemented. The State Engineer

welcomes the studies that will help him quantify the return flows.

It is anticipated that not unlike other projects there will be a need for future project facilities such as control structures and measuring devices that will be critical to the operation of the project. The Division of Water Rights anticipates working with the commissioners and the water users to address future concerns during the implementation of the project as needed. The cooperation and assistance of the CUWCD and other entities involved are also essential and appreciated.

Specific Comments:
1.4.9.3.2 Bonneville Unit Return Flows. Under the present approved water right applications, only the import water is allowed to receive return flow credit in Utah Lake. The decision was first documented in the first condition of approval as indicated in the Memorandum of Decision for 55-1875 (A37093) dated September 29, 1999. Changing this condition is not recommended. Future changes will require approval of additional water right applications.

The Memorandum of Decision on 55-1875 (A37093) indicates that return flow credit not be granted for non-import project water that would otherwise go to the downstream water users. When import water exists in Utah Lake, and certain conditions exist, a like amount of Provo River System Storage in upstream reservoirs is converted to Priority Storage that is not subject to release to Jordan River rights.

1.4.9.3 Return Flows and Recycled Water; Also 1.5.9.2 & 1.6.3.2
The return flow estimate of 21,000 ac-ft (70%) of the 30,000 ac-ft M&I delivered to Salt Lake County is somewhat higher than expected in an area with significant outdoor water use. It is recommended that the lead agencies address this issue by providing reasonable return flow factors to be used at the time the project import water is delivered. Control of return flow is necessary in order to use it under project water rights. Project water flowing into Utah Lake is stored only on a space available basis and is subject to spills whenever the lake exceeds compromise elevation.

1.4.9.4 Conserved Water; Also 1.5.9.3
Conserved storage water is to be used according to the rights under which it is stored. Change applications are needed if the conserved water is to be used differently than the uses identified in the water rights or if the ownership is changed. Return flows and depletions are often considered when reviewing change applications. In some situations the storage or loss water must remain in the system to satisfy downstream obligations. The only sure supply of Section 207 water is when project petitioners reduce their allocation of project water. The use of such conserved storage water is determined by the project water rights.

1.4.9.5 Mitigation Commission Water Acquisition in the Lower Provo River
There are provisions in state water law (73-3-3) that enable the protection of state-owned in-stream flow rights. There may be more than one filing required. Irrigation companies and/or entities owning the water rights would file the applications. The approval may be conditional on water flowing to downstream appropriators as needed for their supply.

1.4.10.1 Operation & Maintenance; Also 1.5.10.1 & 1.6.4.1
Daily water distribution and reporting responsibilities are borne by the Spanish Fork

River Commissioner. His responsibilities include operating the river diversions according to the water rights on the river under the direction of the State Engineer. This includes assessing transmission losses, coordinating deliveries with water users and the CUWCD, adjusting diversions, maintaining control over river operation, and record keeping and reporting to the State Engineer and water users.

1.4.10.2.1 Water Delivery Operations
Second item: The 16,273 ac-ft of instream flow would be released mainly during the winter months. Existing facilities enable such deliveries only in the winter months. Such imports are held in Utah Lake on a space available basis and subject to spills prior to being exchanged upstream on the Provo River.

Third item: As a typical rule of operation, the water with earlier priority date also has senior priority in the diversion/delivery facilities.

Last item, 2nd paragraph: The words "would allow" would be better described as "would help enable". Purchasing irrigation shares is the first step in the process. Change applications would also be necessary. State law requires that instream flow water not be an enlargement of the underlying rights. Some requirements include irrigation company approval and the facilities and assessments associated with the change.

Table 1-13, Sources of Water for June sucker Spawning and Rearing in the Lower Provo River: Page 1-85.
Change applications resulting in instream flow would be subject to review and approval on a case-by-case basis. In the interim and as is the current practice, the water that supplies the June sucker fish flows will continue to be Bonneville Unit storage water released to Utah Lake from upstream CUWCD project storage. Conserved or other project storage water might be the only conserved water available for instream flows, depending on how the applications are approved. System Storage releases may also at times be available for instream flows. These issues are complex, and not fully addressed in the EIS. The water right applications have not been submitted to the Division of Water Rights.

Figure 1-21, Utah Lake and Jordan River Water Balance Under the ULS Preferred Alternative: Page 1-93.
There is concern that the proposed project water balance as outlined does not reflect the project operation under existing water rights. Credit in Utah Lake has not been approved for return flows, releases or spills of non-import project water. A significant part of the Mitigation Commission and fish flow water would already be in Utah Lake as natural return flow. Change applications have not been filed to remove the purchased irrigation water from the canal diversions and create permanent instream flow rights. The 7,616 ac-ft average reduction in return flow, evaporation, and Utah Lake content would likely be a concern to existing water users. The water balance may be adjusted based on the outcome of change applications.

Utah Lake operation is a delicate and complex balance of the water supply, the water use, and the natural flooding of lands adjacent to the lake. It is operated as a reservoir with active, inactive and flood storage capabilities. The active storage content exists for the benefit of the water users on the Jordan River. Operation requires the release gates to be opened when the lake is above normal full (compromise) elevation in order to minimize

the flooding lands adjacent to the lake. It is not an efficient storage facility due to the shallow depth. Dredging is sometimes required in order to deliver water when the lake level is low. Any project-induced increases in lake level when the lake is above compromise elevation will cause flooding to lands adjacent to the lake. Any project-induced decreases to Utah Lake levels will result in less water for existing water users.

Project planning should include measuring water use efficiencies, losses, and return flow factors that represent actual return flows from import sources.

1.5.1 Introduction; 1.5.9.1 Transbasin Diversion
While it is recognized that Utah Lake secondary rights can reduce the required releases of secondary water from Provo River storage to Utah Lake, the firmness of the yield of M&I water resulting from the purchased rights is based on hydrologic conditions and water distribution according to the priority dates of various water rights. Project operation is subject to the operating agreements and conditions of approval of water rights, and if such conditions are not included in the model, the actual operation could be different than projected.

1.6.3.1 Transbasin Diversion (No Action Alternative)
Import waters under this alternative would also be assessed a transmission loss by the Spanish Fork River Commissioner. Storage on the Provo River would be subject to prior rights and conditions of the 1994 Operating Agreement. Releases from Jordanelle Reservoir on the Provo River would be subject to the normal 4% transmission loss.

**Division of Water Resources**

S.5.1.10 Where is the permanent loss of the 15.4 acres of orchard land located, what general area?

This references Sect. 3.11.8.3.4, Table 3-69 and 3-70. Table 3-69 shows temporary loss of crop acreages 7.7 and 9.0 for apples and tart cherry, with total loss of production approximately 996,000 lbs. and 669,000 lbs., respectively. Table 3-70 shows 7.1 and 8.3 for apple and cherry acres, with losses of only 142,000 lbs. and 83,000 lbs., respectively. One table looks a magnitude out of order. Depending on which of the amounts are correct, this would be significantly different and have great impacts on the local farmers.

1.2.1.2.1 The governor's goals are based on the 1995 per capita use, not 2000. The 1995 per capita water use was 321 gallons per capita per day.

1.2.1.2.2.1, 1.2.1.2.3.1, 1.2.1.2.4.1 A bullet should be added to each one of these sections, addressing each agency's involvement in the Governor's Water Conservation Team. The CUWCD District, JVWCD, MWDSLS are members of this team.

1.2.1.2.5 The state of Utah uses the year 1995 as the basis for the state water conservation goal.

1.2.1.4 The approximately 21,000 acre-feet of Bonneville Unit M&I water return flow would need to have the approval of the state engineer.

1.4.2.7 This section needs to discuss potential problems that may occur with right-of-

ways and public perception through residential areas.

Figure 1-8, pg 1-52: Calls for the placement of uncompacted backfill – Native Earth Fill to be placed adjacent to the restored pavement. These materials should be compacted to minimize settlement and road hazards to the traveling public. The compaction should meet a minimum 90% AASHTO T 99 specification.

Section 1.4.4.8, pg 1-63 – Quality Control Procedures: describes quality control requirements for the pipeline. Quality Control of pipeline backfill is also needed.

Section 3.3: The portion of the tables that list "Maximum Monthly Levels" has "(minimum)" listed above the dissolved oxygen (DO) column. The word "minimum" indicates minimum DO values are listed, but the usage seems awkward and confusing.

Map 3-1: The Syar Tunnel inlet is discussed but is not specifically shown on Map 3-1.

Section 3.5.5.2: Mentions Map 3-3 and probably means to refer to Map 3-4.

S5.1.19: Is there a net loss of power from the Strawberry Electric power station and the new power stations? (new stations at 50 MW, power loss from Upper Generator at Strawberry Electric is 76,560 kwh).

Draft Surface Water Hydrology Tech Report page 4 paragraph 3: Need to strike the reference to a definition of compromise and include the definition of compromise.

The Committee appreciates the opportunity to review this proposal. Please direct any other written questions regarding this correspondence to the Resource Development Coordinating Committee at the above address or call Carolyn Wright at (801) 538-5535 or myself at (801) 538-5559.

Sincerely,

John Harja
Executive Director
Resource Development Coordinating Committee

June 14, 2004

Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058

Subject: Comments on Draft Environmental Impact Statement (DEIS), Utah Lake Drainage Basin Water Delivery System (ULS)

Dear Mr. Brietenbach:

This letter provides the review and comments of the June Sucker Recovery Implementation Program (JSRIP) on the subject document. These comments have been prepared by the Technical Committee of the JSRIP and reviewed and endorsed by our Administration Committee.

The JSRIP was formally organized in April 2002, and sanctioned by the U.S. Fish and Wildlife Service (Service), to lead the interagency effort to accelerate implementation of the approved June Sucker Recovery Plan. The need for a more focused and concerted effort toward June sucker recovery among the key resource and water development agencies at the federal, state and local levels had become apparent following several interagency consultations completed pursuant to Section 7 of the Endangered Species Act. We also deemed it important to include a representative of environmental and outdoor interest groups as a means of increasing public involvement.

The goals of our program are: 1) to recover the June sucker so that it no longer requires the protection of the Endangered Species Act; and 2) to allow continued operation of existing water facilities and future development of water resources for human uses.

The Service is a participant in the JSRIP and is responsible for periodically assessing progress toward our goals. We anticipate that the Service will submit separate comments on the DEIS that will also address the effects of the ULS on the June sucker.

Scoping

On March 29, 2002, we submitted a letter during the public scoping process for the development of this ULS DEIS. Our scoping letter provided information and our recommendations to guide the joint lead agencies (JLA) in the development of a ULS plan that would benefit the June sucker. We will refer to the elements of our scoping letter throughout this letter of comment.

We congratulate the JLA, and your planning staff in particular, for the creative manner in which this last element of the Central Utah Project has been designed. Generally, you have made an excellent effort to incorporate our scoping comments into ULS planning. All project alternatives (including No Action) contain important project elements designed to benefit, directly or indirectly, the endangered June sucker. These project elements will, in our opinion, contribute to several important actions defined in the June sucker Recovery Plan as needed to bring about recovery and delisting of this species.

ULS project alternatives are: (For expedience we will focus on project elements that pertain to the June sucker.)

Spanish Fork Canyon - Provo Reservoir Canal Alternative (Preferred Alternative)

The Preferred Alternative includes the following project elements that would benefit the endangered June sucker: 1) delivery of up to 16,000 AF (annual average) of ULS project water to the lower Provo River; 2) water conservation/acquisition in the Provo River basin totaling 12,165 AF for delivery specifically to support June sucker spawning during April – July; 3) delivery of about 3,300 AF of additional Provo River basin water acquired by the Utah Reclamation Mitigation and Conservation Commission (Mitigation Commission) under Section 302(a) of the Central Utah Project Completion Act (CUPCA); 4) delivery of ULS project water to support June sucker spawning in Hobble Creek; and 5) Santaquin-Mona Reservoir pipeline to deliver water for a conservation pool in Mona Reservoir.

Bonneville Unit Water Alternative

This alternative includes all project elements in the Preferred Alternative to benefit the June sucker except: 1) delivery of 16,000 AF of ULS project water to the lower Provo River via the Spanish Fork-Provo Reservoir Canal Pipeline; and 2) the Santaquin – Mona Reservoir Pipeline. Neither pipeline would be constructed under this alternative.

No Action Alternative

While no new conveyance structures would be constructed under the No Action alternative, some project actions would still be implemented for conservation of the endangered June sucker. These include: 1) storage, management and delivery of water in the Provo River basin totaling 12,165 AF specifically to support and enhance June sucker spawning; and 2) delivery of Provo basin water acquired by the Mitigation Commission.

Under the No Action alternative existing irrigation diversion dams on the lower Spanish Fork River would be modified to pass ULS water to Utah Lake and to allow fish passage. These modifications could benefit June sucker. See further discussion below.

In addition to these ULS project features, the JLA, as participants in the JSRIP, have made prior commitments as a result of past interagency consultations to ensure sufficient progress of our program toward the recovery of the June sucker. These commitments involve continuing financial and technical support of our program annual work plans, which we consider applicable to the ULS.

No construction or operations cost information for individual project elements is included in the DEIS. Therefore, we are unable to comment on the costs of project elements that benefit the June sucker relative to their respective merits.

Provo River Basin Flow Enhancement via Water Acquisitions

Vigorous implementation of Section 207 of CUPCA is expected to provide substantial conserved water in the Provo River (or water that can be made available in the Provo River). At least 12,165 AF of this water is to be acquired and managed by the JLA specifically to assist June sucker spawning in the lower reaches of the Provo River during approximately April – July each year. While a number of water conservation projects are identified in the DEIS to yield this water, we interpret this as a commitment of the JLA to secure at least 12,165 AF of water in the basin for use by June sucker regardless of source. The DEIS makes clear that additional funding has been made available for water conservation projects under recent CUPCA amendments (1.1.2.2). We believe it is the intent of the JLA to reserve a sufficient amount of this funding for future projects in the Provo River basin to achieve this commitment.

The Mitigation Commission has, to date, acquired irrigation water company shares representing about 3,300 AF of in the lower Provo River under the authority of Section 302(a) of CUPCA. This water has been acquired towards the amount necessary to meet a year-round, target minimum flow in the river of 75 cfs (CUPCA Section 302(c)4) and not specifically to benefit June sucker. The limitations on the availability and use of this water are explained in the DEIS at 1.4.9.5. However, because these shares are for irrigation, this water would increase the base flow in the Provo River during April 15 – October 15, which would coincide with the delivery of other water for June sucker. (We recognize that the yield of the water rights, the prevailing hydrologic conditions in the Provo River basin, and the decisions of the State Engineer will all have a bearing on the benefits this water can provide for June sucker in any given year.) Thus, we view this feature as a likely indirect benefit to the June sucker and a provision that will ultimately be favorable to the success of our program.

Provo River Flow Enhancements via Spanish Fork – Provo Reservoir Canal Pipeline

Up to 16,000 AF of Bonneville Unit (ULS) water would be delivered to the lower Provo River from the Spanish Fork – Provo Reservoir Canal Pipeline as another assist in meeting the in-stream flow objectives of CUPCA Section 302(c)4. This water would only be delivered when needed to make the Utah Lake-Jordanelle exchange and when flows in the Provo River are less than 75 cfs.

As with Mitigation Commission water, this ULS project water is intended to improve aquatic habitat conditions in the Provo River during all months and is not specifically to benefit June sucker. However, flows will provide an indirect benefit to June sucker particularly in summer when adult and larval stages of the fish are in the lower river. This ULS plan feature will reduce the burden on the acquired water to meet the optimum flow regime.

With this water, average monthly flows in the Provo River between Murdock Diversion and Utah Lake are projected to increase (compared to baseline conditions) under all alternatives, including No Action. Based on the model assumptions projected in the DEIS these flow increases will result in increases in the amount of habitat favored by the June sucker in this reach of river. See generally 3.9.8.3.2.1. If water is provided in the pattern assumed in the DEIS, the projected changes represent substantial habitat improvements for June sucker in the Provo River.

It is important to note that, despite the hydrological conditions assumed for the models displayed in the DEIS, the June sucker Flow Workgroup, an interagency workgroup that operates under our JSRIP, will likely continue to recommend flow regimes in the lower Provo River that are closely allied to the flow procedure described in Appendix F of the DEIS for the April 1 – July 30 period. See Figures F-1, F-2, and F-3 of section F.5.2.1. Briefly, these flow regimes typically call for higher peak flows in May and lower base flows during June through July than assumed and modeled in the DEIS.

It is also important to understand that the flow procedure described in Appendix F is an interim flow operations plan, sanctioned by the U.S. Fish and Wildlife Service, following previous formal interagency consultations under Section 7 of the Endangered Species Act. Its purpose is to manage spring runoff in the Provo River basin to the best advantage of the June sucker based on the best existing information and resource agency judgments we have at the time. The procedure is not a formal flow recommendation in the sense that it does not contain mandatory minimum and maximum flow levels and durations or other typical elements of such a recommendation. Our current flow procedure is focused on the limited period of adult spawning (April – July) and may not adequately address other important June sucker life stages in the river. The flow procedure is intended to remain in place until a formal flow recommendation is developed and approved by the U.S. Fish and Wildlife Service.

As noted in Appendix F, it has been difficult to implement this flow procedure since 2000 due to severe drought in the Provo River basin. We have been unable to meet even the dry year flow scenario due to severely reduced natural runoff and insufficient water acquired to date for June sucker. As Table F-3 shows, water acquired by our program for June sucker represents an increasing proportion of the total water in the Provo River as this drought has proceeded. We anticipate that trend will continue when final data are available for 2004.

We concur with the Appendix F conclusions that operational benefits to the June sucker will be substantial under the Preferred Alternative. As Figures F-1, F-2 and F-3 (F.5.2.2) indicate, project water delivered under the Preferred Alternative will assist our program to meet the flow parameters by reducing the deficiencies in meeting the flow procedure that we now experience (ie, under baseline conditions). ULS project flow enhancements alone do not meet our flow procedure fully, nor, in our opinion, should they be expected to do so. Nevertheless, the delivery of project water under the ULS is, in our view, a more feasible alternative to achieving our flow management goals than relying entirely on willing-seller water acquisitions alone.

The Bonneville Unit Water Alternative and No Action alternatives are not modeled with respect to our flow procedure in Appendix F. However, the surface water hydrology presentation at 3.2.8.4 indicates that flows in the lower Provo River from Interstate 15 to Utah Lake would increase from 11 – 121 percent during April - July for both alternatives. (See 3.2.8.4.1 and 3.2.8.5.1) In our opinion, these other alternatives should contribute in a similar, but lesser, extent toward achieving our desired flow procedure.

Under the Preferred Alternative, flow modeling predicts habitat for June sucker in the Provo River will increase, including within designated Critical Habitat from Tanner Race Diversion to Utah Lake, over baseline conditions. If water is delivered as modeled in the DEIS, the area (square feet per 1000 linear feet of stream) of habitat favored by the June sucker will increase substantially during the important May - June time period. See 3.9.8.3.2.1. Under the Bonneville Unit Water and No Action Alternatives, increases will be less, but still substantial (3.9.8.5.2.1.). This action will likely assist our program efforts to modify existing diversion dams in the lower river, which we expect will expand available spawning habitat for June sucker and improve reproductive success.

Absent a U.S. Fish and Wildlife Service approved flow recommendation, we do not know if water acquired to date, and available through ULS operations, will be sufficient. As we look to the future, additional water in the Provo River basin may need to be acquired or developed by the Federal agencies, or through the JSRIP, to achieve recovery of the June sucker.

However, under all alternatives, these flow enhancements in the Provo River will favorably contribute to the accomplishment of Task 3.1.3 – Acquire and Protect Flows in the Provo River,

a Priority 1 task in the approved June sucker Recovery Plan. In our opinion this is one of the most important, but difficult, tasks necessary for the recovery of the June sucker. In a river system such as the Provo River, that has been fully appropriated and extensively developed, securing this quantity of water for instream flows is an exceptional achievement.

Hobble Creek Flow Enhancement

The work of our program to evaluate the feasibility of developing an additional tributary spawning location for the June sucker is described in the DEIS consistent with our scoping letter. See Appendix F, F.10.1. In 2003 and 2004, our program identified funding and began evaluation of land acquisitions from willing sellers along Hobble Creek that would be necessary to implement our habitat improvement plans.

Our plans will benefit from flow increases in Hobble Creek facilitated by construction of the Mapleton-Springville Lateral Pipeline, which will result in conserved water. Through a combination of this conserved water and additional ULS project water, about 12,037 AF would be delivered to Utah Lake via Hobble Creek to support June sucker spawning and rearing in April through June (and to supplement base flows at other times of the year). Of this total, 4,000 AF of conserved water is specifically planned for firm annual delivery to Hobble Creek to benefit June sucker (1.4.9.4.2).

As in the Provo River drainage, we interpret this to represent a commitment to acquire 4,000 AF from future water conservation projects in south Utah County. As the DEIS indicates, a portion of this water (1,000 AF) has already been acquired and is committed to this purpose; the remainder represents a commitment the ULS project intends to achieve in the years ahead. Again, the JLA have identified water conservation funding under Section 207 of CUPCA and intend to reserve such funding for projects that can achieve this water savings objective.

Supplementing flows in Hobble Creek under both the Preferred and Bonneville Unit Water Alternatives will increase the potential to utilize the creek for June sucker spawning. See Appendix F, Figures F-4, F-5, and F-6. This action would contribute to the completion of Task 4.2.3 – Establish Spawning Stocks in other (Utah Lake) Tributaries, a Priority 3 task in the approved June sucker Recovery Plan. The DEIS accurately describes related work our program is doing to address a number of technical problems related to the development and improvement of habitat conditions in Hobble Creek. (See Appendix F, F.10.1). However, without supplemental flows, habitat enhancements in Hobble Creek would likely be infeasible and we would be unable to pursue this option as a recovery action for June sucker.

Santaquin – Mona Reservoir Pipeline

This pipeline would connect to the end of the Spanish Fork-Santaquin pipeline and run for about 7.7 miles south to Mona Reservoir in Juab County with a design capacity of 20 cfs. The purpose of the pipeline would be to provide a water supply for a conservation pool so that Mona Reservoir could be managed, in part, as a refuge for a naturalized (ie., introduced) population of June sucker. This action would contribute to the completion of Task 1.2.2.1 – Identify a secondary refuge (for June sucker) located within the Utah Lake drainage, a Priority 2 task in the June sucker Recovery Plan.

We appreciate the initiative of the JLA to develop and plan this project feature. At present our program has not determined that Mona Reservoir is a feasible alternative to fulfill this Recovery Plan task. Unfortunately, due to a number of technical problems, we have not made progress on analyzing Mona Reservoir as a potential refuge as envisioned in our scoping letter. In addition, we are considering other alternative locations near Utah Lake for a secondary refuge that could be managed in addition to, or in lieu of, Mona Reservoir.

The DEIS (1.4.2.5) emphasizes that before this pipeline could be built, the JSRIP would be required to secure a sufficient water supply for a conservation pool, execute a carriage contract to deliver water via the ULS system (assessing charges for storage, delivery and O&M), complete a determination that the pipeline is economically justified, and ensure compliance with other regulatory mandates including the National Environmental Policy Act.

At the present time, these requirements do not appear practical for our Program. The water supply, in particular, seems problematic. The DEIS offers no alternative suggestions for a water supply. In our view, water would likely have to be acquired from supplies in Strawberry Reservoir, or from the Diamond Fork/Spanish Fork drainages in such a manner that water could be exchanged into the ULS pipeline system for delivery to Mona Reservoir. The availability of water is doubtful and its cost could be prohibitive. Other means of securing a conservation pool in Mona Reservoir, such as dealing directly with the Mona water users, appear to be more feasible and economical at this time.

It is unclear what economic justification would need to be prepared for this feature. Presumably the pipeline is already justified as a part of the entire ULS. We are unaware of any other individual ULS project feature that is required to demonstrate an independent economic justification.

Utah Lake Hydrology

Fluctuations in the elevation of Utah Lake, due, in part, to historic water project operations (public and private), are believed responsible for significant alternations in the ecology of the lake with resulting negative impacts on the June sucker. We commented extensively on Utah Lake in our scoping letter with hopes that environmental conditions in Utah Lake might be improved with the ULS. However, based on modeling in the DEIS, it appears that changes in the volume, pattern of storage, and surface elevation of Utah Lake resulting from the operations of the ULS, under all alternatives, will be negligible (3.2.8.2.6).

Water Quality Impacts

Water quality degradation in Utah Lake is another important factor in the decline of the June sucker. Poor water quality is one of the bases for listing the species as endangered (51 FR 10857); improvements in the existing lake water quality are an identified task in the Recovery Plan (Task 3.5.1.1 – Priority 3).

An extensive water quality impact analysis for Utah Lake and its tributaries starts at 3.3.8.3 in the DEIS. Flows to Utah Lake under the Preferred Alternative and other alternatives are from 40,000 to 85,000AF per year or 6-12 percent of total lake inflow (3.3.8.2). Based on flow alone, the DEIS considers that project water quality impacts in Utah Lake will be insignificant, except for phosphorus (P) and total dissolved solids (TDS), constituents for which the State of Utah considers Utah lake "impaired" under the Clean Water Act. Among the alternatives, there appear to be no consistent trend in water quality changes in P and TDS. Both parameters, as modeled, show small increases, or decreases, depending on the water body in question and baseline.

The DEIS includes no water quality impact analysis for June sucker. However, after reviewing the pertinent DEIS sections, we think it unlikely that the comparatively small changes in TDS and P resulting from the ULS, to the extent they aggravate already impaired conditions, will adversely affect June sucker in Utah Lake or its spawning tributaries. For example, in Hobble Creek, where modeled P levels show the largest increases (Preferred and Bonneville Unit Water Alternatives), levels appear to elevate in July when June sucker spawning adults and most larvae may be out of that tributary. Modeled values are, at most, 0.02 mg/l above current state water quality standards, which we hope will be insignificant. See Water Quality Technical Report, Tables 4-17 and 4-65. Other water quality parameters in Hobble Creek would be improved with both alternatives.

Similarly in the lower Provo River, most water quality parameters would improve under the Preferred Alternative. Periodic low oxygen levels in the lower river would be relieved by

increased ULS flows, which, at times could be the majority of the flow in the river during late summer (3.3.8.3.2.1).

With respect to water quality and June sucker recovery, it is more important, in our view, that the State of Utah has initiated a Total Maximum Daily Load (TMDL) Study for Utah Lake to identify the significant sources of P and TDS and to develop a plan of action to reduce those source inputs. We recommend that the JLA make efforts to monitor and support the TMDL study with a view to ULS project operations that could assist the state in reducing TDS and P parameters in Utah Lake.

Related Issues

Our scoping letter described the reasons for our program emphasis on Hobble Creek as the most feasible alternative spawning location for June sucker. However, in that letter we encouraged flexibility and preservation of options for (flow) enhancements in the American Fork and Spanish Fork Rivers. As an important related development, our program monitoring activities in spring 2002 collected 14 adult Utah suckers and one stocked June sucker in the Spanish Fork River. This spring (2004) we have identified a total of 16 adult suckers in the Spanish Fork River, including one wild June sucker (a fish without a tag; presumably never before captured) and one wild Utah sucker. (The other fish were June suckers previously stocked in the lake and carrying tags.) In addition, light trapping this year has confirmed larval sucker life stages (unidentified as to species) that strongly suggests spawning activity. This represents more significant use of the Spanish Fork River by native suckers than we have been able to record in many years reinforcing the potential importance of this river system.

Our perspectives on the Spanish Fork and American Fork Rivers remain as stated in our scoping letter. However, we wish to again emphasize our hope, as we did in that letter, that future ULS operations can remain flexible with respect to ULS flow manipulations (possibly during wet years) that could benefit June sucker use and/or spawning in the Spanish Fork River. Eventual removal of the June sucker from protection under the Endangered Species Act will require establishing an additional, self-sustaining spawning run in a second Utah Lake tributary. Other tributaries, such as the Spanish Fork and American Fork Rivers, may prove important for June sucker recovery if it is determined that additional spawning habitat is needed to achieve recovery.

Thank you for the opportunity to comment on this DEIS. For further discussion of these comments please call me at (801) 538-7420.

Sincerely,

Brenda Landreth for

Reed Harris
Director
June Sucker Recovery Implementation Program

cc: Ron Johnston, Program Director, Central Utah Project Completion Act Office, 302 East 1860 South, Provo, UT 84606

Michael Weland, Executive Director, Utah Reclamation Mitigation and Conservation Commission, 102 West 500 South, Suite 315, SLC, UT 84101

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bcc: All AC members
All TC members

Stonefly Society Chapter
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Mark Breitenbach, Project Manager, CUWCD
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Harold Sersland, Environmental Programs Manager, CUWCD
Michael C. Weland, Executive Director, URMCC

Gentleman,

Few individuals in the state of Utah fully appreciate the difficulties the Central Utah Water Conservancy District (CUWCD) has surmounted to produce this plan for water use in Utah and Salt Lake Counties. Yet, there is still much to do. On a superficial basis, this project appears straight forward. With more examination, the complexities multiply.

A revealing example of the obstacles faced is documented in the minutes from a February 7th, 1997 presentation made to the Salt Lake County Council of Governments by then Central Utah Water Conservancy District (CUWCD) Board member from Salt Lake County, Gerald K. Maloney. The meeting, attended by most of the managers of the CUWCD, was held to review CUWCD options for the water being produced by the CUP's Strawberry Collection System. Gerald Maloney reviewed the history of the conflict regarding use of this water, whether the water should be used for irrigation in southern Utah or sent north to assist in water shortages in northern Utah County and Salt Lake County. Gerald ended his presentation with the conclusion "the decision is set in stone. There is no way to bring the water north".

Fortunately, in the intervening years the CUWCD has been given opportunities to revisit this early decision. This is an elegant and complex plan that does much to improve water availability in Utah. It correctly dedicates the immensely valuable Strawberry Reservoir-Transbasin water to M&I uses.

We are now on the verge of a unique opportunity to improve both water management and Utah's remarkable natural environment. The 1992 Central Utah Project Completion Act (CUPCA) gave the Central Utah Water Conservancy District a unique position within the Department of the Interior. The Act provided the District great flexibility and financial (some, not great) resources to fulfill this promise. Multiple sections of CUPCA demonstrate the CUWCD's special legal position and detail its various public obligations. It also set a very high standard of public responsibility that is in fact unknown in western water use organizations.

To a remarkable degree, the CUWCD has been successful and fulfilled these very high expectations. It has been successful in the Diamond Fork, the Middle Provo River, the Uintah Basin Replacement Project, protection of the High Uintah wilderness areas, Manti Meadows, the Wasatch County Efficiency Project, and the Great Salt Lake Wetlands.

In contrast to these successes in Utah, much of the west has been involved in endless, destructive conflicts regarding water with no end in sight. Such is the case on the Gunnison River, the Klamath River, Walker Lake in Nevada, the Lower Snake River Dams, the Delores, Animas LaPlata, the Rio Grande in New Mexico, the Wind River Reservation, the Salton Sea, the Lower Colorado River/Delta, Las Vegas water needs, and Glen Canyon.

Utah is in its 5th year of drought. Citizens of Utah are being asked in multiple public appeals to use water carefully. The Salt Lake Tribune (May 30, 2004) recently printed an article on some of the worst individual water wasters in Salt Lake County. The excesses reported in this article are sad commentary on how we value water in the second driest state. Yet, the citizens of Salt Lake and Utah Counties are being asked to behave in a publicly responsible manner and save water. It is our hope that this same standard should also extend to our water managers. It is time for all of us to realize that in order to solve future and current water issues we must put aside the small issues and work together for the benefit of the State of Utah.

The ULS brings the major construction phase of the originally conceived Central Utah Project to a close. However, there are unresolved public obligations created by CUPCA that need to be noted in this final major EIS, considered in a Definite Plan Report, and addressed by the people of Utah. So far, the ULS review has not produced wide public attention. Many of the issues that we address in this letter involve the CUWCD and CUPCA, but raise important issues of public policy. These include coordinated operation of our river systems, ability of the river commission system to operate in an even handed manner in behalf of the public at large, obligations to the Ute Indians, legal protection of instream flows for over-riding issues of the public trust, hoarding of water rights for speculative purposes, and the future of Utah Lake. There should be a mechanism to provide assistance for the CUWCD on these issues. Some of these issues are obviously not under the control of the CUWCD, but together with other groups, the CUWCD could help start a process to resolve them.

There are major issues that need to be resolved regarding this project. The following issues need to be addressed:

**1) Water Conservation - Absence of an Aggressive Landscaping Conservation Program**

A very large portion of the water being delivered to the Wasatch Front will be used for outside watering, perhaps 75% of the water the ULS water going to southern Utah and Salt Lake Counties.

When CUPCA was being designed, there were bitter complaints from many water managers about the inclusion of the water conservation program in CUPCA. Cooperation instead of hostility might have produced a better act. In spite of this, the water conservation program has been a stunning success. So far, a large, possibly a majority of the water actually produced by the

CUWCD has come from the water conservation program. Remarkably, on an acre foot per dollar, this water has also been less expensive.

However, one element that has not been addressed aggressively is the use of water for landscaping. The example in the Salt Lake Tribune illustrates the problem.

There is a need consider modifications to the water conservation program to promote an aggressive xeriscaping program particularly in areas such as Wasatch County, Hobble Creek, and southern Utah County where diminished water use would increase downstream water supply. An aggressive xeriscaping program would also have supply system benefits by reducing peak summer demand. This is important on the Provo River, Diamond Fork Creek, and all pipelines. Such a program is especially significant in planning the proposed project in Southern Utah County.

There is a need to evaluate the potential of an aggressive program such as being implemented in Las Vegas. A reasonable level of reduction would be 50% from current use. This evaluation should consider the potential of such a program and whether this would produce an alteration in timing or design of ULS.

At present, the water conservation program contains per capita use requirements. There should be separate standards that combine per capita use standards with per house use requirements. There is a need to establish clear standards of acceptable levels of outside water use in urban areas. Examples such as those noted above need to be prevented. We should not be delivering over 3.3 million gallons over a year to a single home even if occupied part of the year by Karl Malone.

**2) Water Management - Continuing Over Diversion of Irrigation Water**

There are multiple locations along the Wasatch Front in which water is being diverted for irrigation use to fields that are now covered with houses. For instance, an irrigation canal still terminates at South Temple in downtown Salt Lake. Utah citizens are being asked to conserve so that numerous water users can wastefully divert water only to prevent forfeiture and speculate in water rights in the middle of a time of critical water shortage. There is a need for a public review of the major irrigation systems from Salt Lake City to southern Utah County. Such a review has major implications for the planning for the CUP.

It is probable that such diversions are occurring on both the east and west side of the Jordan River, Utah Lake, the Lower Provo, northern Utah County, and possibly areas south of Provo. It will soon become a problem in Wasatch County. Some of this water is being used for secondary irrigation systems. The 1997 Utah State Water: Utah Lake Basin & Lower Jordan contains diversion figures for agricultural water use in these areas. Some of these areas continue to be viable agricultural activities and some are rapidly changing.

The amounts of water being diverted for agricultural in the Provo/Utah Lake/Jordan River system is still quite large. These amounts are: Upper Current Creek - 27,000 acre-feet; Lower Current Creek - 26,000 acre-feet; Cedar Valley - 7,000 acre-feet; American Fork - 53,000 acre-feet; Utah Lake - 27,000; Thistle Area - 14,000 acre-feet; Spanish Fork - 118,000 acre-feet; Hobble Creek - 18,000 acre-feet, Upper Provo - 12,000; Heber Valley - 76,000

acre-feet; Round Valley - 5,000 acre-feet, Provo/Utah Valley - 133,000, and Utah Lake/Jordan River - 223,000.

Along the Wasatch Front, we have not been successful in transferring water from declining agriculture to M&I uses. Utah law of forfeiture, Utah Code 73-1-4 demonstrates the public policy implications of such an examination, but it is not clear that it has ever been enforced.

This water belongs in our streams and lakes; it should not be flowing uselessly down irrigation canals to maintain water right ownership. There are locations in which we are harming the environment by this practice. We are also causing needless loss of water as well as degrading water quality. This should be considered as a part of the review. This is particularly critical on the lower Provo River and Hobble Creek.

It might be argued that this should be the responsibility of the State Engineer. Conversely, our State Engineer has not elected to enter areas of intense controversy unless pressure occurred to do so. The public investment by the CUP in the ULS makes this investigation important. The CUWCD might be able to approach this problem (if it in fact exists) in manner that produces cooperation rather than hostility. Consequently, we would ask whether the CUWCD could start a program to bring increased attention to this issue?

The CUWCD's 207 program might be a method to help promote such an effort. Is there a need for an amendment to CUPCA to make such a program more attractive? For instance, one possibility would be to allow the CUWCD to purchase unused water rights as part of the water conservation program with no matching funds requirement if the purchase produces significant environmental benefits. An example would be water purchases on a stream such as American Fork Creek. This would produce instream flows, positive effects on Utah Lake quality and would then give CUWCD additional water rights on Utah Lake. Creating incentives to enable such a program is important. An exploratory plan funded by the 207 program might be a reasonable first step.

Finally, declining use of these water rights might lead to CUWCD water being made available for future use in other locations. In addition, there is a high probability that the water could be integrated into operation of the CUP. There are areas in which CUWCD water will end up being mixed with water that was in the past being used for irrigation. At such locations, the CUWCD should file water right applications for surplus water that might occur in these locations.

**3) Management of Utah Lake**

The CUWCD has produced stunningly positive environmental changes on the Provo River and Diamond Fork while constructing water supply features. Both are absolutely unprecedented accomplishments in the history of western water use. In the years ahead, it is probable that the transformation of these two areas will be even further enhanced and viewed with even greater appreciation.

Utah Lake is the central feature in this ULS DEIS. A potentially similar opportunity exists on Utah Lake. Its current condition is a public disgrace and is due almost solely to its use as a water supply reservoir for Salt Lake County. Utah County is literally having its environment destroyed to maintain marginal if not outright factious water rights in Salt Lake County.

Two years ago, we proposed that the management of Utah Lake should be a focus of planning for the ULS system. We proposed that an effort be made to restore Utah Lake to its historic pattern of hydrologic fluctuation. There is every reason to believe that restoration of its natural pattern of fluctuation would a gradual recovery on the lake. We proposed that some Strawberry water be directed to Salt Lake County directly through Utah Lake and that the water then be blended with higher quality water to expand the water supply of Salt Lake County and help mimic its natural pattern of fluctuation.

A hydrologic review of this idea was conducted by the CUWCD. Based on strictly hydrologic analysis, this concept was rejected by the CUWCD on the basis that the reduction in TDS that we hoped would occur was too optimistic. The review concluded that TDS could not be reduced to a level at which direct use could be made of Utah Lake water. However, the concept of blending was not addressed by this study.

In the past Jordan Valley made an attempt to blend Utah Lake water with higher quality water to expand available water supplies. Consumers detected that something was wrong with their water. However, this rejection was based on factors other than TDS since reasonable TDS levels were achieved by blending. Algae composition, dissolved minerals, or colloidal solids represent variables that might have affected consumer acceptance.

While changes in hydrologic variables might be debated, if successful there would be massive changes in wetlands, aquatic plant masses, and riparian vegetation at Utah Lake. These factors would produce major changes in colloidal particles, algae species, plankton, and zooplankton. Consequently, Utah Lake water would be very different and might well alter consumer acceptance of blended Utah Lake water. These factors were not addressed in the modeling done by the CUWCD.

It is now approximately two years since we made this proposal as part of the scoping for the ULS System. A careful review of the literature confirms that our original proposal might be feasible and in fact adds to evidence supporting the plan.

Utah Lake should be viewed as a shallow lake. There is an evolving understanding of the ecology of shallow lakes. Shallow lakes generally exist in one of two states, an ecologically attractive condition with clear water and abundant wetlands, high water quality, rooted aquatic vegetation, and wildlife diversity or as a devastated wastelands with high turbidity, barren mud banks, a literal aquatic desert. Abundant peer reviewed scientific literature supports this distinction and shows that there are "alternative stable states" for shallow lakes (May 1977, Bronmark 1998, Scheffer 1998, Scheffer 1999a, Sheffer 1999b, Jeppesen 1999, Melzer 1999, Wetzel 2000). Utah Lake is clearly in the second condition, a turbid shallow lake.

A number of secondary factors can influence which state a lake is in including phosphorus loading (Annadotter 1999), overall nutrient loading (Bayley 2003), lake hydrology (Comin 1999), fluctuation in water levels (Hill 1998), and problems in sediment re-suspension (Jeppesen 2003). Conversely, there are lakes in which phosphorus does not seem to alter lake state (Moss 1996). In an example that might be especially relevant for Utah Lake, Blindow has reported that lake fluctuation might alter lake state.

A particular question on Utah Lake is the role of the lake's carp population in promoting and maintaining the lake's turbidity. First, all

review papers have noted that each lake type is associated with specific fish populations. Clear lakes have much more diverse, balanced fish populations that flourish in lake vegetation. Turbid lakes are always found to have fish like carp or the bream (a European fish) that like carp feeds on aquatic insects deeply buried in lake sediment. Perrow (1999) argued that rooted vegetation was primary and that this determined the fish population, a secondary dependent variable. Zambrano (1999) actually performed experiments in ponds in Mexico altering the density of carp populations and then measuring turbidity. He found that over a certain density of carp, ponds did become turbid. It was a threshold effect and not a linear effect. Lammens (1999) found that in certain lake situations removal of fish is an important management tool. Collectively, these results show that one cannot conclude that Utah Lake's carp population would preclude restoration.

When Utah was settled, historical records indicate that the lake supported immense beds of rooted aquatic vegetation and wetlands. Consequently, Utah Lake was a shallow relatively clear lake. Current studies precisely define the characteristics of these two lake types. This shows that the lake was relatively clear since current studies indicate that turbidity will destroy rooted aquatic vegetation even in very shallow lakes. Collectively, these factors show with proper management there could be very significant changes in Utah Lake water quality. This leads to the possibility that Utah Lake water from a restored Utah Lake could be blended with higher quality water to expand water supplies in Salt Lake County.

Below is a table of Salt Lake County Water Use:

| Table # 1 need table of water use in SLC | |
|---|---|
| CUP Jordanelle water | 70,000 |
| ULS System water | 30,000 |
| Deer Creek Reservoir | 61,700 |
| Welby-Jacob Exchange | 29,400 |
| Wasatch Front Streams | 49,750 |
| Groundwater | 114,400 |
| Total | 355,250 acre-feet |

A ten percent blend would produce over 30,000 acre-feet. A twenty percent blend that would be reasonable based on TDS levels would add 60,000 acre-feet to Salt Lake County water supply. In addition, as agriculture declines, water quality on Utah Lake could improve and it might be possible to increase the amount of water that this approach could provide. Finally, with alternative management, spectacular recreational and environmental benefits would be created at Utah Lake.

In addition, it is almost certain that this is the only mechanism that will allow the actual recovery of the June Sucker and termination of the June Sucker Recovery Program. Restoration of the ecology of Utah Lake would end what might become an eternal effort to "recover" the June Sucker.

This would certainly be one of the least expensive way to expand Salt Lake County water supply in manner that works with our environment and not against. It would also help expand the ULS water supply for Salt Lake County. We would like to see them done in combination.

On Utah Lake, we would suggest a series of steps by the CUWCD. First, a variety of actions, some by the CUWCD and some due to our changing water use patterns, will lead to increase flows of water into Utah Lake. The CUWCD should considering filing a water right application for surplus water at Utah Lake. The CUWCD is best able to coordinate the multiple uses of this water for exchange upstream for use at Jordanelle, June Sucker flow upstream and downstream from Utah Lake, downstream delivery, and/or groundwater exchanges. The CUWCD also would seem to need to be able to have a separate category of water on the Lake, CUWCD water as opposed to primary and secondary water.

Next, there is a need for expert of review of the actions we are suggesting on Utah Lake. This review should address several questions. Will moderating the fluctuations of Utah Lake alter the lake's ecology in a positive direction? Would this change (even if gradual) in Utah Lake water quality allow the use of Utah Lake water for blending? Finally, while expert opinion is valuable, it might not be definitive, and steps that have no cost should be undertaken to limit fluctuations on the lake.

**4) Status of Instream Flows on the south slope of the Uintah Mountains**

In the 1980's, the Bureau of Reclamation and the CUWCD were confronted with harsh attacks because the proposed plan for the CUP removed literally the entire flow of Rock Creek, the West Fork of the Duchesne River, Current Creek, the Strawberry River, and five smaller streams from the Uintah Basin. The Bureau of Reclamation and CUWCD bitterly opposed any reduction in the amount of water diverted out of the Uintah Basin and away from the Ute Indians.

Intervention by environmental groups including the Stonefly Society and several federal agencies combined with requirements of the Clean Water Act enforced by the US Army Corps of Engineers coerced the CUWCD and the US Bureau of Reclamation to back down. Initially, instream flow water was increased from 6,000 acre-feet to 21,000 acre-feet. CUPCA increased instream flows up to 44,000 acre-feet. Both documents promised that attempts would be made to secure additional instream flows by water purchases if needed.

Since the early 1980's, no water purchases have added water to the instream flow water, but then it is not clear that anyone seriously looked. However, with the proposed ULS System EIS, the conditions contemplated in the instream flow agreement have finally been completed. The ULS System plans that a large block of water will be transferred from Strawberry Reservoir to Utah Lake during the winter to be exchanged back up to Jordanelle Reservoir. 57,000 acre-feet of secondary Utah Lake water rights will also be used to implement this exchange. Fortunately, the CUWCD has been able to purchase an additional 25,000 acre-feet of primary water rights on Utah Lake plus an additional 5,000 acre-feet of Utah Lake. This block of water gives the CUWCD and Department of Interior great flexibility.

It is now important to seriously examine how much water is needed for the instream flow requirements of the south slope coldwater streams and the endangered species on the Lower Duchesne River. Fortunately, the CUWCD has been able to acquire the water needed for this twenty-year-old agreement to finally be implemented. In addition, as will be noted later the water conservation program is making water available that could be traded back into the Uintah Basin.

Consequently, there now is a need to establish what volume of water is actually needed on these rivers. There is a subjective quality to such an issue. This is the type of issue that should be dealt with in a careful review of the available data and then subjected to outside review.

**5) Obligations to the Ute Indians**

Shortly after Utah was settled by Brigham Young, the Ute Indians were driven from their ancestral home on the shores of Utah Lake. They were placed on a reservation in the Uintah Basin. Later, it was alleged that they were not using the waters of the Upper Strawberry River appropriately and these waters were diverted into the Heber Valley with no compensation. Around the turn of the century, there was a Uintah Basin land rush much like the Oklahoma land rush. Again, this occurred with no compensation for the lands taken from the Ute Tribe. Shortly thereafter, the legislation was passed producing the US Bureau of Reclamation. The Strawberry Project along with the infamous Newlands Project in Nevada was among the initial projects built by the Bureau. Again, water was withdrawn from the Ute Reservation with no compensation. In the 1930's the US Bureau of Reclamation proposed diverting the waters of the upper Duchesne River into the Provo River for storage in Deer Creek. Again, there was no compensation provided or even any contract with the Ute Indians for taking the waters of the Ute's Duchesne River.

Remarkably, in 1965 as part of the planning for the Central Utah Project, there were actual negotiations with the Ute Tribe regarding water rights in the Uintah Basin and a deferral agreement was signed. In the late 1980's, with the reassessment of the CUP needed to produce CUPCA, it become clear that once again the Ute Tribe's rights were not being adequately protected. CUPCA attempted to protect the rights of the Ute Tribe. We appreciate that as noted on pages 3-320 and 3-321 of the DEIS attempts have been made to contact the Ute tribe.

If ULS diverts water out of the Uintah Basin and contracts are signed with water users in the Bonneville Basin, this additional block of water will be lost to the Ute Indian Tribe. CUPCA stated that the rights of the Ute Indians need to be protected. The Stonefly Society strongly supports this position. Without agreement of the Ute Tribe, the status of 1965 Deferral Agreement and CUPCA is open to question.

This issue is noted on page 1-12 of the DEIS. A particular issue surrounds the capacity of the Ute Indian Tribe to use its water rights. At present, the Tribe is being told that state law narrowly defines how they can use their 1861 water rights.

Regardless, before moving water out of the Uintah Basin, there is a need to know that that we as a state have dealt fairly with the Ute Indian Tribe, finally. We are fully aware that obtaining involvement from the Ute Indians is confusing and difficult, however as a federal agency the CUWCD has a trust requirement to protect tribal resources.

**6) Relations with the Strawberry Water Users and Operation of the Spanish Fork River**

We strongly believe that CUWCD plans for operations along the Provo River are publicly responsible efforts. This tightly coordinated plan is the type of effort that CUPCA had hoped to make possible. The situation in the southern Utah County with the Strawberry Water Users is not productive for Utah. We do not believe that that the citizens of southern Utah County understand the consequences of the failure of the Strawberry Water Users to work with the CUWCD and the DOI in a cooperative fashion.

After extended, contentious negotiations with the Strawberry Water Users, the CUWCD has tried to design a project around this older project without their cooperation. The CUWCD proposes to release the waters of the Strawberry Project back into the Spanish Fork River just downstream from the junction with the Diamond Fork. It will acquire a silt load making it difficult to treat in the future for municipal water use.

Downstream a CUP Aqueduct carrying water from Spanish Fork to Santaquin will be built along side the leaking dilapidated Strawberry Highline Canal. Neither canal will carry water suitable for interior use, but only secondary exterior use. Water is being lost by this antiquated canal. The needs of the Spanish Fork River are being forgotten and lost in the conflict.

In the past, the CUWCD proposed producing a trail system through southern Utah County on top of a restored Highline Canal. The trail systems in Salt Lake County along the Jordan River and the Bonneville Shoreline Trail are stunningly successful. A "Strawberry Water Users Memorial Highline Canal Trail" would undoubtedly be just as important for southern Utah County.

For the last fifteen years, the CUWCD has worked to protect the rights of multiple water user groups and the environment in a manner that commands great respect. Operations at Strawberry have been of significant benefit to the Strawberry Water Users. The contract with them that guarantees their annual yield and provides an additional 50,000 acre-feet of storage is a wonderful benefit for this organization. It appears that they are trying to enhance their position in a manner that is detrimental to other groups involved in the CUP.

Certainly, a settlement similar to the restoration of the Provo Reservoir Canal would be reasonable. Citizens and officials in southern Utah County need to fully appreciate the potential benefits that are being rejected for them by the Strawberry Water Users.

**6) Future of the Spanish Fork/Diamond Fork System**

In the future, the Diamond Fork River and Canyon will be one of the most important natural areas in Utah. No other Wasatch Mountain canyon is so free of human occupation. The operation of the ULS will make demands on the capacity of the Diamond Fork to carry transbasin water. The protective Diamond Fork Pipeline greatly enhances this capacity. There needs to be a post project assessment of whether the new flows are safe for the river system or whether adjustments are needed. We are optimistic that there will not be a problem. However, given the public investment in this canyon, there is a need to implement the proposed flows as quickly as possible and assess their impact.

In addition, we are concerned regarding the point selected for release of the Strawberry Project water back into the Spanish Fork. From the point of view of the river system, where should the water be released?

**Other Issues:**

**1) Status of Transbasin Diversion Water**

There are four issues that need to be resolved regarding the transbasin water. There are the two issues mentioned previously (the instream flow water and obligations to the Ute Indians). This document does not discuss the status of the Colorado River Upper Basin Recovery plans for flows on the Duchesne River, nor does it discuss the implementation of the Lower Duchesne River Wetlands Mitigation Project or some other project in its place.

**2) Final Resolution of all mitigation, compensation, and CUCAP issues**

This document essentially terminates the major construction phase of the Central Utah Water Project as implemented by the original 1965 act and as modified by CUPCA. There is a need for a final accounting of mitigation obligations as part of the Final EIS. For instance, have all wetland mitigation obligation been met? It would appear that wetland efforts in both Diamond Fork and Jordanelle are not functioning adequately. In addition, CUPCA directed that operating agreements be constructed for both Jordanelle and Strawberry stressing overall water management on these systems.

**3) Page S-2 - Status of CUWCD water rights on Utah Lake**

It is stated that CUWCD water rights on Utah Lake will be exchanged upstream into Jordanelle to provide water for storage. Has an exchange application been filed with the State Engineer for this exchange?

Past communications with the CUWCD have indicated that this water would be left in Utah Lake and no exchange application would be filed. According to Figure 1-21 on page 1-93, this will produce 34,540 (page 1-73) acre-feet of water. Conversely, with an Exchange Application, the entire 57,000 acre-feet might gradually come under ownership of CUWCD. As other water rights are removed from irrigation, the priority date of this water right would increase. Conversely, if other water rights on the Jordan River-Utah Lake system are sold, Change Applications would have to be filed on these water rights that would reset their priority water dates under the Change Applications to dates later in time than the CUWCD rights and associated Change Application. This would also cause the CUWCD water rights to produce an increased yield and make Strawberry water available for other uses.

This would have the effect of increasing the value of the water rights that are being transferred to the DOI. From this point of view, there is a need to know that the interests of the DOI are being fully protected.

**4) Page S-4 - 3000 acre-feet from southern Utah County**

It is stated that 3,000 acre-feet of water will be returned to the Department of Interior for instream flow and this water will be used for instream flow in the Utah Lake System. This will be transbasin water. Consequently, the entire 3,000 acre-feet should be available for

environmental purposes in Utah Lake or can be traded back into the Uintah Basin for instream flow purposes in the Duchesne River System.

**5) Status of Bottle Hollow Reservoir**

As noted on 1-7, Bottle Hollow was constructed to provide compensation to the Ute Indian for economic losses associated with alteration of Rock Creek. Has this been successful? It is our understanding that initially this project was a very attractive resource for the Ute Tribe, but that now there are questions regarding its continued success as a recreational facility.

**6) CUPCA Allocation for Ute Indian fishing & hunting development**

As noted on 1-7, it is stated that 10 million dollars was allocated for fishing and hunting development by Section 505(f) of CUPCA and that this money was then dedicated to the Lower Duchesne Wetland Mitigation Project. It is also stated that section 201(a)(1) was listed as the source of funding for the wetland project. Political issues have made the planning of this effort very complicated. Are planning costs being subtracted from the CUPCA allocation?

**7) Flood Control Operations**

As noted on 1-7, the M&I System provides flood control benefits. There is a need to review flood control operations of this project to insure that they are consistent with the Provo River restoration and the June Sucker Recovery Program.

**8) Water for landscaping**

On page 1-17 there is a discussion of water needs in Southern Utah County and there is a conclusion 30,000 acre-feet of water can be used for exterior water use landscaping. As noted previously, there is a need for clear standards of use for this water. A range of 180 to 220 per capita water use is required to be eligible for Bonneville Unit water. Per capita figures are not appropriate when proposing water use standards for exterior water use; per household use would be more appropriate.

**9) Water use level of JVWCD**

On page 1-19 there is a discussion of water use levels in JVWCD. It is stated that currently residents are using 250 gpcd. On this measure, the JVWCD does not appear to be eligible for CUP water. Does this limit apply to all CUP water or only ULS water?

**10) Capacity of the Spanish Fork Canyon Pipeline**

On page 1-34 it is noted that the Spanish Fork Canyon Pipeline will hold 365 cfs. It is not clear why this capacity was selected. Once Highway 6 is reconstructed it would not be very difficult to increase the size of the

pipeline. Will the canal size be adequate if at a later date, Strawberry Water Users water is placed in the canal? Will this capacity be adequate to provide an optimum flow on the Spanish Fork River?

**11) Mapleton-Springville Lateral Pipeline**

On page 1-77, this is described as a 207 project and as a measure to help restore the June Sucker population in Utah Lake. It is reasonable to ask how carefully water is being managed on Hobble Creek. If water is being wastefully diverted, purchase of those rights would be an additional mechanism to improve spawning habitat on Hobble Fork. Water purchases would also help Utah Lake. Consequently, this is a reasonable alternative that needs to be examined as part of this project.

There appear to be three alternatives: the pipeline as planned, a pipeline combined with some water purchases, or water purchases alone. As noted previously, water purchases are difficult and we would propose that if selected there should be a modification of CUPCA to enhance this as an option.

One mechanism which that might help to begin an exploration of water management on Hobble Creek would be asking the State Engineer for an initial assessment of how much water must transported to Hobble Creek to maintain target flows. This should be a public report open to question by outside groups.

Establishing flows in Hobble Creek is only part of the effort needed. There needs to be commitment by local communities to protect the riparian corridor of this stream. It is also should be clear that fish have access up and down the entire river corridor. Will there be recreational access? Will there be flexibility to provide optimum flows to enhance Hobble Creek habitat? Much like the middle Provo, this plan will be of immense benefit to the town of Springville.

Finally, even if CUP water is added to Hobble Creek, there is a need to keep as much water as possible in the Creek (both local and CUWCD), to improve water quality in Utah Lake and to benefit June Suckers and possibly restoration of Bonneville Cutthroat trout. Consequently, we believe that the CUWCD should file a water right application covering all surplus water in Hobble Creek. Increased urbanization in this area would make such a filing even more important in the future. This type of filing might also in the future allow the CUWCD to re-direct the CUWCD water away from Hobble Creek for another water use or environmental purpose.

There might be legal questions regarding this filing. It would seem that the CUWCD canal delivering water to Hobble Creek for delivery to Utah Lake provides a CUWCD interest in the waters of Hobble Creek.

Finally, there is a need to consider the implications of an aggressive program to control water use for outside watering on Hobble Creek. Local water supplies are mainly springs, direct diversions from Hobble Creek, Strawberry water, and well water. With careful management, reduced water use would increase flow in Hobble Creek, perhaps on the order of one-quarter acre foot for each home xeriscaped. This would decrease the need to transport CUWCD to Hobble Creek. If the CUWCD has filed a water rights application for surplus water on Utah Lake and has acted to eliminate unneeded diversions of water form Utah Lake, water conservation on Hobble Creek would increase water

available to the CUWCD on Utah Lake. This would then reduce the need to bring Strawberry water into Utah Lake.

**14) Spanish Fork-Provo Reservoir Pipeline**

On page 1-46 this canal is described. There is no explanation for the size of the canal. We view this canal as the most important part of this project. Once in place it would be very expensive to enlarge. How was this size selected? Is there additional water that could reasonably be added to the ULS water supply flowing north to Salt Lake or northern Utah Counties at a later date?

Part of the capacity is being used to transport June sucker flows to the Provo River. As noted previously, we feel that there should be documentation that all water being diverted out of the lower Provo is in fact being used. As on Hobble Creek, we believe that the CUWCD should make a water rights filing on the Provo River. They should file for all surplus water rights on the river to protect the flows of the Provo between the canyon and Utah Lake.

**15) Tabulation of Transbasin Water**

On page 1-73 there is a calculation of transbasin water. In addition to the 3000 acre-feet of instream flow water noted previously, an additional 1000 acre-feet of transbasin water is noted as being dedicated to instream flow. Consequently, it appears that 4000 acre-feet of transbasin water is being assigned to instream flow. Since this is transbasin water, it is new to Utah Lake and can be used thereafter for environmental purposes.

**16) Page 1-77 - Water Rights Acquisition on the Lower Provo**

We are very pleased with the acquisition of water rights on the Lower Provo for purposes of instream flow. This is a very important action and deserves more recognition. There are very few locations in the west where such actions have occurred.

However, making full use of these rights might demand a Change Application to allow storage. In the event that natural flows on the Lower Provo are adequate to protect the June Suckers and the cold-water habitat, and there is space available in either Deer Creek or Jordanelle, storage should be possible. Such a filing should be made on the basis that it will gradually become more worthwhile and that intent to store and manage water rights was clearly the intent of CUPCA in asking for a combined operating agreement covering both projects.

In addition, such a Change Application should also request to use the water in trades. For instance, the water could be sent to Jordan Valley through the Provo Reservoir Canal and water in Jordanelle would then become instream flow water.

Finally, the intent of CUPCA is that water be used with great care. From this point of view, a wasteful instream flow is just as offensive as a wasteful diversion for any other purpose in a river as tightly managed as the Provo.

**18) Page 1-80 - Flows on the Lower Provo**

CUPCA stipulated that the flows on the Lower Provo from Olmsted to Utah Lake will be at least 75 cfs contingent on water right purchases. This issue is noted again on page 3-85. The section from Murdock to the outflow of the Olmsted Power Plant has frequently dropped below this level because of diversions into the Olmsted flow line that are diverted solely for the purpose of power production. There needs to be an agreement regarding flows in this section. We would propose that flows through the Olmsted Power Plant would only be allowed when there in 75 cfs from Olmsted to the outflow of Olmsted Power Plant. We are particularly concerned about the sections just downstream from the Olmsted Diversion and the Murdock Diversion.

**19) Page 1-77 - Enclosure of Provo Reservoir Canal**

This action raises several questions regarding contracts and water rights.

First, we have followed issues regarding the CUP very closely, but we never were given notice of the EA covering enclosing the canal. Generally, we believe that it is an extremely attractive project, but we would have still liked to review the project.

It is stated that the water savings will be 8,000 acre-feet. How was this calculated? We have heard rumors that the amount saved will actually be greater. If so, what is the fate of any additional water? If it is being assigned to the Provo Water Users, do they have authority to expand the yield of the Deer Creek Project?

Will the water savings be calculated based on past performance of the canal or should it be calculated on performance of the canal in the future? It appears that the canal will be carrying more water in the future and consequently future water savings will be greater.

The nature of the contract between the DOI, CUWCD, and the Provo Water Users are extremely complex and it is not clear that they have been fully disclosed.

We have been told that the State Engineer has determined that saved water from this project is considered Utah Lake water and consequently once it enters Utah Lake, it loses its identity as being appropriated by the DOI. Some of this water is in fact Deer Creek transbasin water, some is going to be Jordanelle water returned to the Department of Interior, some will be water normally lost to wetlands, and some will be Strawberry Transbasin water. Consequently, some of this water should be available to the Department of the Interior for environmental purposes. It would appear that because of the nature of the Utah Lake Water Distribution Plan that allowing this ruling to stand means that this saved water will, in fact, be used by either the CUWCD or the Provo Water Users for consumptive uses instead of being used by the Department of Interior for environmental purposes.

Finally, certain water right filings by the Provo Water Users appear to frustrate the ability of the CUWCD to make direct up-stream trades of Utah Lake water and to make full use of surplus flows of the Provo River. These filings made the Jordanelle-Deer Creek Operating Agreement very complicated. Full use of the Provo Reservoir Canal changes the use of water on the Deer

Creek Project. There is a need to review this operation and insure that water acquisitions by the CUWCD continuing to be held by CUWCD and those being conveyed to Department of the Interior can be fully utilized and will not be diminished by speculative water rights filings held by the Provo Water Users.

**20) 1-146 - Table Listing Agency Actions Required**

As noted previously, we feel that there are additional locations for which water right applications should be filed including Utah Lake, Provo Reservoir Canal, Hobble Creek and the Lower Provo River. There is also a need to clarify with the state engineer the legal rights to maintain stream flows to protect endangered flows for June Sucker and flows on the Duchesne.

**21) Provisional Flow Recommendations for Endangered Species on the Duchesne River**

US Fish & Wildlife Service has recently released proposed flows for the Duchesne River. We agree with that base flows on the river combined with periodic flushing flows producing overbank flooding and channel maintenance should be provided and protected. Unfortunately, we believe that there are major areas of uncertainty in the proposed flows. The size of the baseflows should expand downstream. It is not clear that there is a request for water to produce a decline from peak flows that allows survival of newly emergent riparian vegetation. It is not known whether the same flows that will be needed for both the recovery program and restoration of riparian vegetation. In addition, it is not clear which segments of the Duchesne are being selected. Regardless there is a need to define the required flows on the Lower Duchesne River as part of the planning for the ULS.

In addition, the CUWCD, the DOI, and the URMCC are being asked to provide water that for years we have fought obtain for the coldwater fisheries in the Uintah Basin. The Daniels Creek water is an excellent example. Without combined action of multiple agencies, this water would not have been there. If this water is provided and CUWCD/DOI facilities such as Upper Stillwater, Strawberry Reservoir, Current Creek, and Starvation are used to provide this water in an ecologically sound flow pattern, this water remain under CUWCD/DOI control or ownership downstream once it enters the Green River. Should this water be under control of these agencies in Lake Powell? If CUWCD is allowed to accumulate water in Lake Powell, should it be under joint ownership with other responsible parties?

Next, we suspect that the flow pattern needed in the coldwater sections would generally match the flows needed for lower Duchesne River. Is this accurate? If not, the one alteration that would probably be needed is the accumulation of water in Starvation on a space available basis to amplify the spring runoff. Is this accurate and can this be done?

Does the obligation to assist with these flows extend only to the CUWCD or does it also involve the operations of the Duchesne area irrigators, Strawberry Water Users and Provo River Water Users? Does the Recovery Program with DOI assistance have the right to acquire shares in these two organizations for use in the Upper Basin Recovery Program?

**22) Flows in the Spanish Fork River**

We are concerned that the needs of the Spanish Fork River are being ignored. Will water belonging to the CUWCD flowing in the Spanish Fork River be diverted by the Strawberry Water Users through their power plant on the River?

**23) Value of deltas in Utah Lake**

We are very impressed by the comments regarding the value of deltas in Utah Lake for the June Sucker. These areas are probably of great value to the overall lake ecology. Have you or the Mitigation Commission reviewed the degree to which increasing flows in these river systems increases the value of these deltas? Again, this point shows the importance of keeping water in rivers instead of irrigation canals.

In conclusion, we feel that we are confronting a remarkable opportunity to improve Utah water management and our environment. This opportunity can be traced directly to CUPCA.

Some aspects of this project are particularly intriguing. A homeowner in Springville, Utah could stop over watering his lawn and the saved water would flow downstream preserving the habitat of Hobble Creek. It would then help improve water quality on Utah Lake. It could be traded back into the Uintah Basin and flow down the now dry Wolf Creek into the Duchesne River assisting in the Upper Basin Recovery Program. The saved water would then enter Lake Powell. In the future, it might actually end up in St. George, Utah and further downstream who knows.

Sincerely yours,

Fred Reimherr

Stonefly Society

Dave Serdar

President, Stonefly Society

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SIGNED HARD COPY OF ORIGINAL E-MAIL

**To:** mark@CUWCD.com
**From:** jawex@aros.net
**Subject:** ULS comments
**Date:** June 18, 2004 3:33:08 PM MDT

June 18, 2004

Mark Breitenbach, Project Manager Central Utah Water Conservancy District355 West 1300 SouthOrem, Utah 84058

The Utah Chapter of the Sierra Club and the Sierra Club Colorado River Task Force appreciate having the opportunity to comment on the Draft Environmental Impact Statement (DEIS) on the Utah Lake System (ULS). We are aware that you have received lengthy comments from some of our colleagues in the environmental community. Rather than reiterate many of the comments from the Stonefly Society, we have limited our comments to the three below.

(1) Currently, there is little monitoring of irrigation diversions in the Uinta Basin and some individuals appear to be benefiting from the lack of monitoring by using more water than their water rights allow. Does the District plan to monitor diversions and water use in the Uinta Basin in the future? What will the impact of full CUP build-out be on individual farmers that have previously had access to unused CUP water? What will be the cumulative impact on individual Uinta Basin farmers of completing the ULS in conjunction with the exercise of 1861 Tribal water rights as described in the November 2003 Lower Duchesne River Wetlands Mitigation Project DEIS?

(2) Has the baseline hydrology used in the ULS DEIS included ALL mitigation obligations including the base flows for listed fishes and the Strawberry Aqueduct and Collection System mitigation obligation (currently proposed to be met by the Lower Duchesne River Wetlands Mitigation Project)? Unless the ULS baseline hydrology includes full exercise of Tribal water rights and full implementation of ALL mitigation obligations, it is inadequate and should not be used.

(3) Has the use of all 1861 priority water rights in the Duchesne River system been accounted for in the operation of Starvation Reservoir? If not, why not? If they have, the EIS needs to provide documentation that these rights have been accounted for and that the CUP operation does not depend on any use of Tribal water rights, either now or in the future, for the system to function as described in the DEIS. For the ULS EIS to adequately address Tribal Trust Resources, it must provide full documentation and disclosure of how Tribal water rights are being accounted for, not only the operation of Starvation Reservoir but also in the entire ULS.

Again, we appreciate the opportunity to comment on the DEIS and look forward to your adequately addressing our concerns in the final EIS.

Sincerely,

James A. Wechsler
Sierra Club, Utah Chapter
Sierra Club Colorado River Task Force

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DIVISION OF WATER QUALITY
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*Governor*

GAYLE F. McKEACHNIE
*Lieutenant Governor*

June 28, 2004

Mark Brietenbach
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058

Subject:

Dear Mr. Breitenbach:

In response to recent discussions between members of the Division of Water Quality and the Central Utah Water Conservancy District (CUWCD) staff regarding our letter of June 3, 2004 (copy attached) with comments on the Draft Environmental Impact Statement (DEIS) for Utah Lake Drainage Basin Water Delivery System (ULS), I would like to clarify the Division of Water Quality's position.

We have reviewed the water quality analysis presented in the Utah Lake System DEIS and the detailed analysis from the Draft Surface Water Quality Technical Report and concur in the conclusions presented. The CUWCD staff worked closely with the Division of Water Quality in the preparation of the documents and I understand that CUWCD incorporated water quality analysis methodologies suggested by my staff. We believe your analysis provides is an accurate presentation of impacts to water quality to the waters of Utah that are affected by the alternatives presented in the ULS DEIS.

Sincerely,

Walter L. Baker, P.E.
Acting Director

P:dwham/wp/utah_lake/EIS2letter.doc

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June 3, 2004

Mark Breitenbach, P.E.
ULS Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058-7303

RE: Draft EIS, Utah Lake Drainage Basin Water Delivery System

Dear Mr. Breitenbach,

Thank you for the opportunity to review the Draft EIS for the Utah Lake Drainage Basin Water Delivery System. We appreciate that you involved the Division of Water Quality early in the process. The time we spent meeting on various ULS issues and reviewing preliminary documents was well spent. We feel that we have a good understanding of the proposed project alternatives and their potential impacts to the Utah Lake Watershed. At this time, we offer no additional comments on the Draft ULS EIS.

We look forward to continue working with the District as you move forward with Utah Lake System Project.

Best Wishes,

David Wham
Division of Water Quality

F:dwham/wp/utah_lake/EISletter.doc

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In Reply Refer To
FWS/R6
ES/UT
04-0735

June 21, 2004

Mr. Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058-7303

Dear Mr. Breitenbach:

The U.S. Fish and Wildlife Service (FWS) has reviewed the Draft Environmental Impact Statement (Vol. 1 and 2) (DEIS) for the Utah Lake Drainage Basin Water Delivery System (ULS) dated March 2004. We have also reviewed the associated technical reports.

The ULS will complete the Bonneville Unit of the Central Utah Project (CUP). The project will allow CUP water developed in the Uinta Basin and stored in Strawberry Reservoir to be delivered for municipal, industrial, agricultural, and environmental uses on the Wasatch Front. Specifically, the project would make available approximately 30,000 acre-feet (AF) of water to southern Utah County and 30,000 AF to Salt Lake County as well as contributing to minimum flows necessary for conservation and recovery of June sucker, an endangered fish species. The project would consist of pipelines in Spanish Fork Canyon, to Hobble Creek, to the Provo River, and to Santaquin. These pipelines would be mostly along road rights of way or in existing canals in urban areas. We are providing the following comments for your consideration in preparing a final EIS on this project.

**General Comments:**

We have been involved with the planning and design of the ULS since its inception and have reviewed many preliminary concepts. We believe the preferred alternative provides the most benefits to fish and wildlife resources with the least unavoidable detrimental environmental impacts. We appreciate the creativity and thought that has gone into exploring very complicated water resource needs, rights, and infrastructure to develop an alternative that provides substantial fish and wildlife benefits while meeting other project purposes.

While acknowledging that the preferred alternative appears to be comprised of the best mix of feasible designs and operation to meet all project purposes, including environmental purposes, we note that the project is not without detrimental impacts. These include:

(1) Spanish Fork River downstream of the Highway 6/Highway 89 junction will experience significant permanent detrimental impacts due to further dewatering in the summer and

additional water flows in the winter. Significant restoration would no longer be possible unless new summer water supplies are found.

(2) Utah Lake will experience additional loading of phosphorus which will make improving water quality more difficult.

(3) The Sixth Water transmission line will result in habitat fragmentation and permanent conversion of forested habitat to grass/shrub habitat.

(4) Leatherside chub habitat in the Spanish Fork River will be reduced in quality and quantity.

Changes in Utah Lake floodplain wetland extent, location, type, and quality as a result of changes in water allocation and use attributable to ULS cannot reasonably be forecast.

Nevertheless, given the history of proposed project concepts for completing the Bonneville Unit of CUP, we believe the preferred alternative is the best possible for fish and wildlife resources.

**Specific Comments:**

**Chapter 1**

1.4.10.3 Streamflows

Page 1-87. This section should discuss how the "interim operation" of the preferred alternative (baseline) differs from the "interim operation" described in the 1999 Diamond Fork System Final Supplement to the Final Environmental Impact Statement (1999 FS-FEIS). Specifically, this section should discuss that the "exchange water" will be primarily delivered in the winter to Utah Lake via Diamond Fork Creek and the Spanish Fork River. Flows in Diamond Fork Creek would not change from those in the 1999 FS-FEIS because the Diamond Fork pipeline has been completed and will be operational. However, flows in the Spanish Fork River will be different, and this project provides the NEPA evaluation for the revised "interim operation" flows. The associated tables in this section should be checked for consistency and accuracy given the revised interim flows.

Section 1.8.8 Standard Operating Procedures (SOPs) During Construction

Page 1-135. Erosion Control and Restoration. This section should state that thatching, straw mulch, etc. will be weed free. Although this is covered in Volume 2 in your Noxious Weed Control Plan, it should also be mentioned here.

Page 1-143. The document states that monitoring for revegetation success will be conducted for a period of three years following completion of initial revegetation....Revegetation will be considered successful if visual surveys indicate density and non-nuisance vegetation are similar in intensity and cover to adjacent, undisturbed lands.... We recommend developing more specific success criteria, perhaps specific to each land type and adjacent land use. We also

recommend monitoring until success criteria are met for three consecutive years without the need for outside intervention.

Page 1-146. There is no incidental take provision for golden eagle nests. If direct impacts to a golden eagle nest are anticipated and unavoidable, we recommend consulting with the FWS for appropriate permits and compliance with relevant laws and regulations.

**Chapter 3**

Section 3.2.7. Affected Environment (Baseline Conditions)

Page 3-14. We recommend that the last paragraph repeat the assumption from the previous page that the M&I System is under full operation during the entire hydrologic period. In addition, we recommend that you repeat the discussion in Chapter 1 that describes how the "interim operation" used in the baseline differs from the "interim operation" described in the 1999 FS-FEIS.

Section 3.3 Surface Water Quality

Page 3-32. We recommend that the last sentence in the first paragraph of 3.3.7.1 include endemic endangered fish and seasonal use by endangered birds.

Page 3-34. We recommend that additional data be evaluated if available, including sources other than the State of Utah. Table lists 10 days of sampling. One date is from seemingly representative areas around the Utah Lake, the remaining 9 sampling dates are adjacent to the outflow of the Geneva Steel and may not be representative of the lake as a whole.

Page 3-24. 3.3.7.2.1. The treatment of selenium data throughout the DEIS would be better if modified. Two problems exist. First, State data for selenium prior to about 1996 likely underestimates selenium. Analytical techniques were changed as a result of round-robin testing and comparison. See pages A-132 and 133 of the Surface Water Quality Technical Report for data before and after November 1995. Selenium was not detected prior to this time but averaged 1.6 ppb after this time.

Second, selenium was not shown in either this or the Tech Report to be significant. In fact because of the large number of non-detects, and the use of ½ the detection level in calculations, the data shown shows an average calculation below what can be detected. Most of the data points represent unknown concentrations making extrapolations difficult for this element.

We suggest that the selenium data be presented in the Technical Report and limitations discussed in more detail there. In addition, in this Chapter, we recommend that the selenium be shown as an average value for the 1996 and later data, and the range of values be disclosed. Overall, based on the low concentrations, we believe selenium will not exceed water quality criteria as modeled, and will not be further discussed.

"Provo River" should be "Lower Provo River" for consistency and clarity.

Page 3-35 and later. Much is said about phosphorous levels, but a more general baseline condition discussion, of sources and the impending TMDL process seems warranted. Phosphorous levels are consistently elevated with and without the project, exceeding the State recommendation for rivers and streams going to Utah Lake. We suggest that the minor changes in phosphorus attributable to this project in Utah Lake, would be best addressed in conjunction with other sources through the TMDL process.

Page 3-36. In the last paragraph, some clarification seems needed: "upper (should this be lower) Spanish Fork River are below the state (State) water quality standard...". Does this mean that the stream was in compliance or not?

Page 3-37; 3.3.7.2.4. Language in this paragraph should be corrected. This river segment has a warm-water game fishery also, not just non-game fishery.

This table (Table 3-12) has the heading "Maximum Water Quality Conditions". Previous tables indicated that these were monthly average maximum (or minimum as appropriate) values. Is this an average minimum? If so, it would be useful to disclose the range of values and what percent of the time was the DO lower than the average monthly minimum of 5.5 mg/L.

See previous comments on TDS for Utah Lake. The actual data were not presented for either Utah Lake or the Jordan River in the Tech Report so it is unknown to the reader when the data were collected, number of data points, or how representative it is. Is this site also data poor? Is there additional data that have not been included that may illuminate the outflow? A quick search of STORET for the Jordan River at the Outlet of Utah Lake indicates much higher TDS in 2003 than for previous years. Baseline conditions were considered 1990-1999, however.

Page 3-38; 3.3.8.1. "Significance" appears to be defined here for later discussion. If this is so, our review indicated inconsistency in the use of this term in the discussions. We recommend that a search be completed to check on its use. Similarly a check needs to be made to determine if "whether exceeded standards would be further degraded" has been adequately identified as significant in subsequent discussions, or the definition qualified.

The following discussions reference DO in terms of measured DO and standards. Some sites have low DO. The measurements for DO are presumably during the day when DO is maximized by vegetation or water is stirred up by currents or wind. We recommend that if data is available, discussion be presented of the diurnal ranges of DO values, particularly in Provo Bay, a potentially important area to June suckers.

Page 3-38; 3.3.8.2. The statement that includes 48000-85000 acre-feet needs to be re-written to improve understanding of what is being said or referenced to an area in the document with further explanation.

Page 3-39; Table 3-13. We suggest that the standards for temperature be expressed in centigrade (or both scales). All the subsequent tables reference centigrade.

We recommend that the phosphorous standards for lakes also be included for all the appropriate classifications.

Page 3-40; Table 3-13 continued. Units for selenium are shown as ppb, but those for 1C and 4 are actually ppm as shown.

The citation indicates that these standards were in effect February 1, 2003. We believe this is incorrect and should be March 1, 2004.

Page 3-41; Table 3-14. Jordan River is also listed as 3B for this reach. Whereas it is not indicated as 3C in the State Standards, these sub-classifications are typically listed for the most restrictive of the classifications. Footnote "d" needs clarification relative to the table.

Page 3-45. It is unclear how the water temperatures under the preferred alternative would be lower than what appears to be the source water, e.g. upper Spanish Fork River. Please clarify.

Was ammonia analyzed as average conditions only, or were individual data points estimated, e.g. Table 3-19? As a directly toxic substance, average values are inappropriate when evaluating the potential effect on endangered fish.

Page 3-51; last sentence. Can the intake be modified to change the load of phosphorous released? Was this evaluated and can it be referenced?

Page 3-58; Table 3-31. We suggest that the table and accompanying text reflect that the baseline data is being compared to simulated data from the 1999 Diamond Fork project for clarification.

Section 3.6 Aquatic Resources

Page 3-81. One of the assumptions used to assess impacts to the aquatic environment states that "Wetted perimeter and macroinvertebrate habitat are directly related; thus, increases in wetted perimeter were assumed to result in increased habitat for macroinvertebrates." It is unclear on what biological data this assumption is based. Although the relationship between wetted area and macroinvertebrate habitat may be correlated, we suggest that sound biological information be provided that substantiates this claim.

Page 3-90. We believe the percentages used to separate the three categories for "potential for impact" should reflect lower percentage dividing points for the Moderate Potential and High Potential categories. We believe that habitat availability changes of "5 to 40 percent" represents too broad of a category for moderate impacts. Additionally, rather than using best professional judgment to determine the dividing points for Low, Moderate, and High Impact Potential, a scientifically based, more quantitative method should be used to make these determinations.

Page 3-91. We do not agree with the statement that "Changes in water quality that could have a significant impact on aquatic resources in this reach would not be expected to occur under any alternative." Page 34 of the ULS DEIS - Aquatic Resources Technical Report (3.3.4) states that

the Jordan River from Bluffdale to the Narrows exceeded the temperature for a class 3A water (cold-water game fish). Also, low dissolved oxygen concentrations were recorded in the lower Jordan River further illustrating water quality problems. Because Jordan River water quality is currently not meeting state of Utah parameters and 2-13 percent decreases in monthly flows are predicted for the Utah Lake to Narrows section of river, it is likely that significant impacts may result. The effect of this additional water withdrawal on the Jordan River should be evaluated in light of its current water quality deficiencies and mitigated for if necessary.

Section 3.7 Wetland Resources

No comments.

Section 3.8 Wildlife Resources and Habitats

Page 3-136. We recommend discussing with orchard managers the possibility of revegetating areas near orchards with species beneficial for pollinators.

Page 3-138. There are numerous typos in the second paragraph.

Section 3.9 Threatened and Endangered Species

Page 3-150. Second paragraph. Ute ladies'-tresses is not well adapted to banks, but rather to low floodplain terraces.

Pages 3-150 and 3-151. Typos and periods omitted from the ends of sentences.

Page 3-150 Although spawning habitat would increase between Tanner Race Diversion and Interstate 15, these areas would only be accessible to June sucker moving up from the lake during very high water years.

Page 3-156. This section should discuss the anticipated increase in nonnative species. A concern for June sucker recovery is the opportunity that the target minimum flows in the Provo River provides for the establishment of a sport fishery. The establishment of minimum flows in tributaries to Utah Lake will be beneficial to the Utah Lake ecosystem and therefore June sucker. In addition, a minimum flow in the lower Provo River would reduce the amount of water needed to be acquired specifically for June sucker spawning and recruitment; however, minimum flows may further complicate nonnative control efforts by allowing the invasion and establishment of nonnative sport fish from upstream. The FWS supports pursuing a proactive approach towards managing the lower Provo River that includes minimum flows with the provision that sport fishery management be compatible with June sucker recovery.

Page 3-157. The discussion on Ute ladies'-tresses needs to be expanded. There is no discussion of how the impact assessment was conducted or rationale for the not likely to adversely affect conclusion.

Although spawning habitat would increase between Tanner Race Diversion and Interstate 15, these areas would only be accessible to June sucker moving up from the lake during very high water years.

Section 3.10 Sensitive Species

Page 3-172. Columbia spotted frog also occurs in Diamond Fork Canyon. Contact UDWR for specific information about location and estimated population size.

Section 3.15 Recreation Resources

Page 3-237. The methods used for calculation of angler day use factor for Spanish Fork, Hobble Creek, and the Provo River should be discussed in the DEIS. As they are currently presented, the values for this category appear to be disproportionate based on the accessibility, fishability, and reputation factors. It is unclear why there are only minute differences in angler day use factor between the seemingly very different Spanish Fork/Hobble Creek and the Provo River sport fisheries. Is this resultant of ecological/recreational differences between these fisheries, or is it an artifact of the different sources (Diamond Fork FS-FEIS Interim Proposed Action vs. Wiley and Thompson 1997) used to obtain these numbers? Please explain and clarify.

Page 3-242. Table 3-84. An increase in angler days of roughly 500 percent is shown for the Provo River segment from Spanish Fork-Provo Reservoir Canal Pipeline discharge to Tanner Race diversion. Because this area is heavily developed with a golf course and private residences there is little to no public access within this river segment. Angler-day increases of this magnitude may be not possible, and therefore changes to angler days per year should be reviewed in light of these public access issues.

Section 3.25 Mitigation and Monitoring

Page 3-325. The second paragraph should discuss the source of hydrology for restoring the 12 small, scattered wetlands.

Page 3-325. We concur that crediting a portion of the Mona Springs Unit of the Burraston Ponds Wildlife Management Area in Juab County as mitigation for permanently lost and temporarily impacted wetlands is appropriate.

Page 3-327. This section provides information on the commitment of the joint-lead agencies to support the UDWR in evaluating population and habitat status of leatherside chub as well as to determine threats and/or identify conservation actions that could protect and where appropriate enhance the species. Although we are pleased that the join-lead agencies are committed to these efforts to protect, enhance, and restore leartherside chub populations, we believe that potential threats and conservation actions should be identified and addressed in the DEIS.

Page 3-329. Mitigation or conservation measures for leatherside chub should be discussed here, rather than simply leaving a conclusion that the impacts exceed the significance criteria.

Section 3.27 Cumulative Impacts

Page 3-337. This section should acknowledge that the ULS Preferred Alternative will have cumulative detrimental impacts on leatherside chub, Ute ladies'-tresses, habitat fragmentation, and Utah Lake water quality, in addition to the beneficial effects on June sucker. Certain of these impacts can and will be mitigated by the JLA, e.g., leatherside chub, Ute ladies'-tresses, and habitat fragmentation. Improving Utah Lake water quality will require the participation of all Utah Lake water users and we believe is best accomplished through the TMDL process.

Section 3.28 Short-Term Use of Man's Environment Versus Maintenance of Long-Term Productivity

Page 3-344. The document states there will be an increase of 7,674 angler days per year on the Provo River below Deer Creek Reservoir. This number is inconsistent with previously presented estimates. Please review for consistency.

**Volume 2 – Appendices**

Appendix A. List of Remaining Environmental Commitments on the Bonneville Unit of the Central Utah Project

We have reviewed this appendix carefully and believe it is complete and accurate.

Appendix B Noxious Weed Control Plan

Page B-1 and B-2, Table B-1. We appreciate that the list of target species includes not only designated noxious weeds, but also weeds not yet officially designated as noxious and invasive species. The list looks complete for the present. However, we should recognize that additional species may need to be added by the time project construction is complete and the project is operational.

Page B-3, Table B-2. We recommend that alfalfa and crested wheatgrass be removed from the species for transplanting and seeding upland areas, unless these areas are within or adjacent to agricultural fields comprised of these species. Both of these species are not native and naturalize when introduced into native vegetation.

Page B-4, Table B-3. We note that although redtop (*Agrostis stolonifera*) is ubiquitous in Utah wetlands, it is not a native. It may be unnecessary to include it in a revegetation species mix.

Page B-5. We appreciate that weed surveys would be conducted monthly during the growing season for three years. However, we recommend development of specific revegetation success criteria. Monitoring and management of undesirable species should be continued until success criteria are met for three consecutive years without outside intervention.

Appendix F Utah Lake System Environmental Impact Statement Biological Assessment

We will be responding to Appendix F as part of our ESA section 7 responsibilities.

**Technical Reports**

Surface Water Quality Technical Report

Many of the comments in Section 3.3 above apply to this report and are not restated.

Selenium analysis; See previous comments concerning a slightly expanded discussion in this report. Data analysis methodology was changed during the mid- 1990's.

Ammonia analysis: Do any of the individual analyses exceed water quality criteria?

Mitigation and Monitoring; Unavoidable Adverse Impacts; Cumulative Impacts: Benefits to water quality? Benefits to endangered fish? Cumulative effect? We suggest that these sections be reevaluated for discussion.

**Conclusion**

In conclusion, we believe this project provides significant benefits to fish and wildlife resources, particularly the endangered June sucker, while meeting other CUP Bonneville Unit project purposes. We appreciate the efforts of the JLA to complete the Bonneville Unit in a manner that provides overall benefit to fish and wildlife resources. However, we have the following recommendations with regard to the unavoidable adverse impacts mentioned above.

1. Lower Spanish Fork River

The June Sucker Recovery Plan (USFWS 1999) identifies the need to establish and maintain spawning stocks in other viable tributaries to Utah Lake. A study conducted in 2001 (Bio-West, Inc. 2002b) examined the potential of all tributaries entering Utah Lake to serve as additional spawning locations. Hobble Creek is currently being targeted as an additional spawning area however other tributaries, such as Spanish Fork River and American Fork River, may prove important for June sucker recovery if attempts on Hobble Creek are unsuccessful, and/or if it is determined that additional spawning habitat may assist in achieving recovery. Habitat enhancement, including diversion structure removal or the construction of suitable fish passage structures, will be required on any tributary that is pursued for developing additional spawning habitat. The relationship between water supply and habitat maintenance will be important considerations as spawning populations are developed in other tributaries.

On occasion, including 2004, June sucker have been encountered in the Spanish Fork River during spawning season. With this in mind, we urge the JLA to retain flexibility to provide future options for spawning and recruitment flows in Spanish Fork and American Fork River.

2. Utah Lake Water Quality

We encourage the JLA to participate with the State of Utah and other partners in the TMDL process for Utah Lake and its tributaries.

3. We recommend that the JLA work with UDWR to develop specific measures to compensate for unavoidable loss of habitat for leatherside chub.

4. We encourage the JLA to work with the FWS, Forest Service and UDWR to ameliorate the effects of habitat fragmentation in the Diamond Fork watershed caused by the Diamond Fork System and ULS. Cooperative efforts for restoring Diamond Fork Creek aquatic and riparian habitats provide an opportunity to greatly improve the quality for these highly valuable aquatic and riparian habitats and thus help compensate for unavoidable fragmentation.

We appreciate the opportunity to provide these comments. If you need further assistance, please contact Dr. Lucy Jordan at the letterhead address or (801) 975-3330 ext. 143; or email: lucy_jordan@fws.gov.

Sincerely,

For Henry R. Maddux
Utah Field Supervisor

cc: URMCC (Attn: Mike Weland)
DOI CUP Completion Act Office (Attn: Ron Johnston)
UDWR – SLC (Attn: Rick Larson)

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
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Ref: 8EPR-N

JUL - 9 2004

Mark Breitenbach, Project Manager
Central Utah Water Conservancy District
335 West University Parkway
Orem, UT 84058-7303

RE: Utah Lake Drainage Basin Water Delivery System, Draft Environmental Impact Statement, CEQ # 040140

Dear Mr. Breitenbach:

The Region 8 Office of the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Utah Lake Drainage Basin Water Delivery System (ULS), Utah. We have greatly appreciated our working relationship with the Central Utah Water Conservancy District (CUWCD) as we have worked through the extremely complex project issues with regard to compliance with applicable environmental requirements. However, significant concerns remain.

Pursuant to EPA's authorities under Section 309 of the Clean Air Act, Section 404 of the Clean Water Act (CWA), the Council on Environmental Quality (CEQ) November 1980 Memorandum to Heads of Agencies regarding the Clean Water Act Section 404(r) process, and the National Environmental Policy Act (NEPA), EPA provides the following comments for your consideration. These comments are meant to provide recommendations for improvement of the NEPA document and address compliance concerns based on the CWA requirements, as well as disclosure concerns under NEPA. We will not make a recommendation on the project's consistency with the CWA Section 404(b)(1) Guidelines until our review of the Final EIS.

Our primary environmental concern relates to potential water quality impacts of the project. The State has identified Utah Lake as a waterbody that is not currently meeting water quality standards. In particular, Utah Lake has been listed on the State's Clean Water Act Section 303(d) list of impaired waters in need of TMDLs. Total phosphorus and total dissolved solids (TDS) are the pollutants identified as causing the impairment. Based on our review of the DEIS and associated documents it appears that all the alternatives analyzed in detail have the potential to further degrade the water quality of Utah Lake. Although a TMDL would describe the level of controls needed to attain standards for Utah Lake, the State has yet to establish the TMDL. The options that appear to be available at this point in time include:

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1) develop mitigation measures that will offset any increase in load and/or ambient concentrations from existing conditions in Utah Lake that may result with any of the alternatives; such mitigation measures would prevent any increase in pollutants from contributing to the existing water quality standards exceedences; or,

2) work with the State to expedite development of the TMDLs for phosphorus and TDS.

The first option could be followed to address the situation where the State TMDL is not available prior to delivery of Strawberry Reservoir water under any of the alternatives. The second option would address the situation where the ULS Lead Federal Agencies and other project proponents work with the State to develop the TMDL prior to delivery of Strawberry Reservoir water. Development of TMDLs for the relevant pollutants would result in a plan that would define the level of control, if needed, to avoid further exceedences of standards in Utah Lake and prevent any selected alternative from contributing to water quality standards exceedences. We believe the project proponents can play a key role in the State's effort to develop and implement TMDL plans for Utah Lake. We encourage you to work with the State and other affected parties to improve the water quality of Utah Lake such that it can be removed from the 303(d) list.

Other significant concerns include the definitions of "project purpose" and "affected environment"; and lack of detail on future water conservation requirements. We have enclosed a detailed discussion of the above concerns along with comments on specific portions of the DEIS where EPA believes the analysis should be improved.

Based on the procedures EPA uses to evaluate the potential effects of proposed actions and the adequacy of the information in the DEIS, the two Alternatives identified by the DEIS that will provide increased Municipal water supply to the project area will be listed as category EC-2. (A summary of EPA's rating definitions is enclosed.) This rating means that the review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts. EPA indicated in previous CUP comment letters (e.g., June 11, 1998, comments of Spanish Fork Canyon - Nephi Irrigation System DEIS) that without avoidance of adverse water quality impacts, the DOI and the CUWCD have not met their Clean Water Act responsibilities. This DEIS continues to project water quality degradation as a result of both the existing M&I system and the new proposal under the ULS project. The DEIS was determined to have insufficient information to fully assess the environmental impacts that should be avoided to fully protect the environment (rating of "2"). Significant information which is lacking includes: rationale to support various project assumptions; a complete water quality analysis; water conservation requirements; appropriate definition of affected environment; and project costs. Areas of insufficient information are further explained in our enclosed detailed comments. Insufficient information is also an important consideration during EPA's upcoming review under the 404(r) process. Projects for which insufficient information is available to make a reasonable judgement as to whether the proposal will meet the Guidelines are to be deemed as failing to comply with the requirements of the Guidelines (40 C.F.R. 230.12(a)(3)(iv)).

The staff contact for this project is Dave Ruiter, who can be reached by telephone at 303-312-6794, or via e-mail at ruiter.david@epa.gov. Specific explanation of the TMDL related water quality issues can also be addressed to Kathy Hernandez at 303-312-6101, or via e-mail at hernandez.katherine @epa.gov. As usual, EPA is available to assist as you address EPA's concerns. My telephone number is 303-312-6004. EPA welcomes continued opportunities to work together to identify sound solutions to water supply needs and environmental protection.

Sincerely,

Larry Svoboda
Director, NEPA Program
Ecosystems Protection and Remediation

enclosures:

cc: Ron Johnston, DOI
Nancy Kang, Corps
Henry Maddux, USFWS
Walt Baker, UDWQ
Dianne R. Nielson, Ph.D., UDEQ

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**U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements**
**Definitions and Follow-Up Action***

**Environmental Impact of the Action**

**LO - - Lack of Objections**

The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

**EC - - Environmental Concerns**

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

**EO - - Environmental Objections**

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

**EU - - Environmentally Unsatisfactory**

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

**Adequacy of the Impact Statement**

**Category 1 - - Adequate**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

**Category 2 - - Insufficient Information**

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

**Category 3 - - Inadequate**

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

**U.S. Environmental Protection Agency Detailed Comments on the Utah Lake Drainage Basin Water Delivery System, Draft Environmental Impact Statement**

**GENERAL COMMENTS:**

**Water Quality:**

The DEIS presents impacts related to both total phosphorus (TP) and total dissolved solids (TDS). The results of the TP analysis are expressed as changes to the annual loading into Utah Lake corresponding to each alternative. The results of the TDS analysis are presented as changes to in-lake concentrations at various monitoring stations. As indicated before, the Utah DEQ has identified Utah Lake as impaired due to TP and TDS on its Section 303(d) list of waters in need of TMDLs. Any increase in TP loadings and TDS concentrations are seen as further degradation to an impaired water and a contribution to current exceedances of state water quality standards.

The TP analyses was done without a substantial amount of data. As such, it is difficult to predict water quality responses with much accuracy. What does appear certain is that all alternatives have some level of negative effect on TP through increased loadings to Utah Lake over loadings portrayed for the historic baseline. The DEIS portrays the magnitude of effect of TP to be minor, but the accuracy of that projection is questionable even though it is based on all the available information. It is not clear what the localized effects may be within the Lake in those areas where the increased TP loadings are highest.

The effects of TDS are projected to vary with decreasing concentration in one part of the Lake and a significant increase (i.e., 25% increase from historic baseline for the preferred alternative) in yet anther part. Those sites where significant increases in TDS are projected are at monitoring stations reporting data below the State water quality standard of 1200 mg/l. However, any increase in TDS concentrations may be considered "significant environmental" degradation simply because of the magnitude of the increase.

Project Purpose:

The project purpose needs to be more clearly defined. The project purpose is to be the underlying purpose for which the agency is developing alternatives. (40 CFR 1502.13) The Bonneville Unit of the Central Utah Project (CUP) was initially, and continues to be, primarily a water supply project. The various modifications to CUP over the years have been to eliminate portions of the water supply (e.g., the Irrigation & Drainage system) or add mechanisms to increase water supply while reducing environmental impacts (i.e., Central Utah Project Completion Act (CUPCA)). While arguably unrelated purposes have been added (e.g. power generation), realistically such purposes were added to improve the funding potential for the project. They do not alter the amount of water always envisioned to be developed. The purpose and need discussion in the DEIS (pg. S-1) confuses this basic, underlying, water supply project

purpose by listing seven purposes, none of which clearly state that increasing municipal water supply is the basic project purpose. Perhaps the best statement which indicates the confusion related to the project purpose is contained in the Alternatives discussion on page 1-158 where it is indicated: "During the study of methods to distribute the ULS water supply, numerous alternatives were identified and studied that would develop and deliver the remaining Bonneville Unit water supply plus District-owned water in Utah Lake that would be acquired by the DOI." This statement clearly indicates that the alternatives are various methods to develop and deliver the water supply.

This confusion is expanded in the Clean Water Act Section 404(b)(1) evaluation (DEIS Appendix C) where it is stated that: "The basic purpose is to define alternatives that would provide M&I water to the Wasatch Front area in addition to that committed to in the 1979 and 1986 M&I Environmental Impact Statements." While the phrasing of this statement is questionable (e.g., the basic project purpose is probably not to "define alternatives"), the statement appears to indicate that the basic purpose is to develop additional water supply, over and above the water supplies committed to in previous Bonneville Unit EISs.

To resolve the confusion, the project purpose statement needs to be a clear, concise statement of the problem to be solved. In this case, the problem is inadequate Municipal & Industrial (M&I) water supply. Therefore, the basic project purpose is to increase the M&I supply. The amount of increase needed should be based on a verifiable analysis of the water demand. The alternatives should be methods to reduce the difference between available supply and existing/projected demand. This can be accomplished by increasing supply, reducing demand, or both.

Project Alternatives:

While not clearly stated, the alternatives analyzed in detail in the DEIS provide two levels of increased water supply over that committed to in previous EISs. The no action alternative would implement the previous decisions and deliver 86,100 AF of Strawberry Reservoir system water to Utah Lake via the Diamond Fork System and Spanish Fork River. This water is ultimately diverted from the Provo River via exchanges to M&I supplies in Salt Lake County. Each action alternative delivers a different amount of water in a different manner to different locations. This results in different impacts, and differing levels of meeting the other "purposes" listed in the DEIS. None of the alternatives provide a water supply adequate to meet the projected demands.

The project alternative of reducing demand to solve the problem of inadequate water supply is incorporated into each alternative by requiring a certain level of demand reduction by the project water recipients. The EIS needs to document how demand reduction will be measured and enforced for the life of the project. (This water conservation concern is discussed further below.)

The EIS does not address growth-related land use alterations as methods to reduce demand. Such alternatives should be evaluated to further reduce demand, particularly in areas where increased development is projected but has not been designed.

The EIS does document that future water demands (132,000 AF in 2050) greatly exceed the new water supplies available from the preferred alternative (60,000 AF). While the preferred alternative is portrayed as reducing impacts (particularly groundwater alterations and associated wetland and other related habitat) over those displayed for the No Action alternative, this reduction is really short-term avoidance as such impacts are projected to occur in the future as the project water is used up and the Wasatch Front communities develop their remaining groundwater sources.

Impact Analysis Assumptions:

Each section of the impact analysis presents a very useful listing of major assumptions developed for each of the disciplines. However, there is no indication why the lead agencies believe any of the assumptions are correct. The rationale for inclusion of the assumption, and to support each assumption, needs to be clearly explained in the EIS. For assumptions where the lead agencies cannot present rationale to support the validity of the assumption, the lead agencies need to address any unavailable information as presented at 40 CFR 1502.22 (incomplete or unavailable information). Without an understanding of the validity of the assumptions being made, it is not possible to determine if the resultant analysis is valid and it is not possible to complete a valid 404(r) evaluation. This is a continuing, significant concern for EPA which we raised in our March 24, 2003, comments on the Draft Resource Specialist Workplans, and our October 23, 2003, comments on the Preliminary Draft ULS EIS.

**SPECIFIC COMMENTS:**

Pg 1-17 - In the DEIS the Lead agencies have established an average daily M&I water usage ranging from 180 to 220 gallons per capita per day (gpcd) to be eligible for Bonneville Unit water. EPA strongly supports development of criteria specific to water use as requirements to participate in the Central Utah Project water supply system. However, the DEIS does not explain the rationale for selection of these specific values, why there is a range of values, nor how pre- and post-participation compliance with these criteria would be measured. This missing information is extremely important as it establishes the only apparent method to assure compliance with the water conservation goals of CUPCA. It needs to include verifiable, consistent mechanisms to actually measure and publicly report annual water use and water savings for each supply entity.

Mechanisms also need to be documented and in place to address situations where annual water use exceeds the eligibility criteria. Section 1.2.1.2.5 restates the lead agencies' commitment in the Diamond Fork System FEIS to include such water demand information in the ULS process. These mechanisms need to be displayed in the EIS so the public and affected water suppliers have the ability to understand and comment prior to project implementation. These mechanisms need

to assure that dual-water systems are also clearly quantified as we mentioned in our March 22, 2002, scoping comments. Since this EIS is the final major NEPA compliance document for the Central Utah Project, the water conservation discussion needs to quantifiably document how the project has complied with Section 207 of the Central Utah Project Completion Act (CUPCA), and how it will maintain compliance in the future. Particular emphasis needs to be placed on documentation of long-term compliance with CUPCA Section 207(4).

The EIS also needs to present the methods to be used to determine if a water conservation program is acceptable. It has been EPA's experience that water conservation plans that rely solely on educational and subsidy approaches (such as portrayed for Jordan Valley Water Conservancy District) are not effective in reducing water demand over the long term. For example, the May 19, 2004, Salt Lake Tribune presented a comparison of the year-to-date water use in Salt Lake City which indicated that while water use in 2004 was below the three-year average, water use in 2003 was above the three year average. How would the lead agencies determine if the water conservation eligibility requirements would be met based on such variable conservation results? Long-term averages may not be sufficient, as the result would not be available until after the water had been delivered, and infrastructure had been developed which encouraged the overuse during development of the long-term average data.

Pg 1-18 - There needs to be an established definition of "conservation" as it pertains to the conservation plans for the Utah Lake System. Membrane treatment is a water treatment mechanism that allows treatment of a water supply that was not previously used, i.e., acquisition of a new water supply, not reduction in water demand. It needs to be clear that the gpcd values established for program eligibility are not confounded by bringing new water supplies on line by use of methodology that allow reuse of water. Water conservation should be treated as demand reduction, not as increased water supply.

Page 1-28 - The last paragraph discusses the CUPCA instream flow requirements of providing 75 CFS between the Olmsted diversion and Utah Lake. The language in this discussion omits a significant term ("exchange") which occurs in the legislation. The EIS should explain the efforts that have been made via exchange to acquire such waters. In particular, use of CUWCD waters via exchange should be addressed. To date, 3,300 AF of summer irrigation flows have been acquired. When 3,300 AF is distributed over the 6-month irrigation period, an average flow of only 9.1 CFS results. Since this standing offer for water purchase has existed since 1992, and only 9 of the 75 CFS (and that only for the summer period) has been acquired, the EIS needs to document what will happen if the 75 CFS is not acquired, and how the impact analysis projected for the ULS system would be altered by the reasonable assumption that additional instream flows will not be acquired from willing sellers.

Pg 1-29 - Section 1.2.1.4 indicates that DOI would acquire up to 57,000 acre feet of CUWCD's secondary water rights. These would become Central Utah Project water. In DEIS Section 1.3, it is indicated that the action alternatives would include federal acquisition of <u>some or all</u> of the CUWCD's secondary water rights in Utah Lake (emphasis added). The document should clarify if the 57,000 AF is all, or just a portion of CUWCD's Utah Lake water rights. If 57,000 AF is

just a portion of CUWCD rights, the percent involved should be documented. An explanation of the significance of the term "secondary" should be provided. If there are additional CUWCD water rights, the amount and availability, should be included. Since CUWCD is a Federal agency for purposes of the Central Utah Project, there should be a clear explanation of why DOI needs to acquire water rights from another "Federal" Agency to implement the project. There should be discussion of why CUWCD water rights have not been available for purchase to meet the instream flows required by Section 302(a) of CUPCA.

Pg 1-30 - Section 1.4.1 indicates that the 30,000 AF of CUP M&I project water delivered to southern Utah County is being provided for use in "secondary water systems." The "secondary water systems" are non-potable outdoor irrigation systems typically developed as a dual water system. The use of this water needs to be better explained so that the reader can understand why future NEPA compliance would be required for this water to be converted to a potable, indoor water system. What types of additional impacts are expected from this conversion that cannot be evaluated today? In reality, many of the current southern Utah County systems are using potable water for outdoor watering. The ULS M&I supply is allowing the southern Utah County system to use more of their treated water indoors and replace that outdoor water with the ULS project M&I water. It is a matter of semantics to state that the M&I water is not being used as potable indoor water. The EIS discussion needs to clearly explain why calling the CUP supply "agricultural water" is, or is not, important. Some of the local communities have indicated that the availability of Central Utah Project Water will actually result in reduced water rates, (Deseret News, 15 May 2004, Spanish Fork may cut cost of irrigation) which will result in increased use, not water conservation.

Pg 1-45 - Section 1.4.2.5 discusses the provision of project features for the potential future use by the June sucker recovery implementation program. There is an indication that the future actions, if they occur, will have to show that the pipeline is "economically justified." Since the preferred action contains many structures and operational features to address the June sucker recovery implementation program, similar economic justification to support the preferred action as it relates to the June Sucker recovery should be included in this EIS.

Pg 1-78 - Section 1.4.9.4.3 discusses the water which would be saved under various CUPCA Section 207 conservation programs. This water is being used to replace flows in the lower Provo River for June Sucker recovery purposes. It is mentioned that some undocumented amount of this water will be provided by future yet to be defined 207 projects. This amount should be quantified to show how much water will actually be available upon pipeline completion. The timing of the 3,000 AF of Section 207 water envisioned from the Springville-Mapleton area for Hobble Creek should also be presented.

Pg 1-85 - The footnote to Table 1-13 indicates that some of the conserved water is included in the 3,300 AF acquired for instream flows. CUPCA Section 207(b)(4) indicates that Section 207 water savings may be used for instream flows; however they are to be "in addition" to flows acquired under CUPCA Section 303. This distinction should be explained so that an assessment of the actual amount of water that has been acquired for instream flows under each section of the

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CUPCA programs can be assessed and tracked independent of the other CUPCA program instream flow acquisitions. Since June sucker flows are typically planned for the April through July period, these flows need to be separated from the annual average flows requirement of 75CFS.

Pg 1-145 - Table 1-35 indicates that one of the necessary agreements for implementation of the preferred alternative is a CUPCA Section 207 agreement for the Springville-Mapleton pipeline. How do these agreements incorporate the water conservation goals and requirements of CUPCA?

Pg. 1-158 - The alternatives considered but eliminated section provides various approaches to cost comparisons (absolute dollars, percent difference) as rationale to eliminate alternatives from detailed analysis. This analysis should include a consistent approach so the eliminated alternatives costs can be compared to each other, as well as to the selected alternatives.

Pg. 1-163 - The rationale for elimination of the Strawberry Reservoir - Daniels Pass Alternative is primarily based on erosion and resultant sedimentation impacts. There is no indication of the magnitude of these impacts, nor the ability to avoid via design or mitigate for the impacts, particularly if they are relatively small. This rationale should be expanded to provide sufficient detail for the reader to understand the significance of the impacts.

Pg. 1-164 - The Strawberry Reservoir - Deer Creek Reservoir Alternative was eliminated from consideration based on inability of the alternative to meet water quality requirements. While EPA supports this conclusion, it is inconsistent to use the total maximum daily load (TMDL) water quality requirements to eliminate this alternative, yet dismiss the need to evaluate the increases of nutrient loading to Utah Lake for lack of a TMDL. Utah Lake has been identified by the State as not currently meeting its water quality standards due to total dissolved solids and total phosphorus. Until such time as the TMDL is established and numeric nutrient goals are established as part of the TMDL, it is incumbent on the project proponent to demonstrate how all the alternatives will avoid impacting the affected environment in Utah Lake. We have documented our water quality concerns in other parts of this comment letter.

Pg. 2-3 - Impact Comparison Table - This Table is the single side-by-side comparison of the three alternatives analyzed in detail in the DEIS. Many of the parameters used for this table do not provide the reader with the ability to make an adequate comparison. For example, under Water Quality Resource, the values are presented as actual values with no indication if these are average, maximum, or minimum values. Often water quality comparisons based on averages are not meaningful comparisons, as usually it is extreme water quality events that cause exceedences of water quality criteria. This Table is an area where the "affected environment" appears to sometimes be depicted as a future "baseline" condition, while other times it is depicted as the actual existing condition. EPA believes this is an incorrect approach to defining the affected environment and such an approach reduces the usefulness of this table.

The water quality analysis presented in the ULS DEIS is the water quality analysis committed to be completed for the Bonneville Unit in the Diamond Fork Supplemental FEIS. EPA raised significant concerns about the potential water quality of Utah Lake at that time, and those concerns remain. The water quality analysis in this document indicates water quality degrades from the Diamond Fork affected environment condition (presented as historic baseline) under all the alternatives. EPA indicated in previous CUP comment letters that without avoidance of adverse water quality impacts, the DOI and the CUWCD have not met their Clean Water Act responsibilities. This document continues to project water quality degradation as a result of both the M&I system as well as the new proposal under the ULS project.

The hydrology comparison in this Table (and other resources that rely on the groundwater alterations for impact prediction) presents a no action condition that is likely to result under all alternatives, just at a different point in time. This should be documented in the table.

The Socioeconomic resource should include the actual cost/ acre-foot for the alternatives, not just for the no action alternative. The limited cost information available for the alternatives on page 3-347 indicates the alternatives would cost much more than the $1000/acre-foot listed for the no action alternative. It would also be useful if the increase in end-user cost was presented for each alternative so the public would understand project costs at the household level.

Pg 3-2 - Description of existing environment. EPA continues to disagree with the lead agencies' approach to the description of the affected environment. The NEPA regulations at 40 CFR 1502.14 indicate that the impacts of all the alternatives (to include the no action alternative) are to be presented in a comparative form. This comparison is to be based on comparing the impacts of each alternative on the "affected environment." The "affected environment" is the "environment of the area(s) to be affected or created by the alternatives under consideration. (40CFR1502.15) The current DEIS has created a condition called "baseline" which is not representative of the environment that exists today, but, is a projection of what the environment would be after implementation of the no action alternative. The no action alternative is the projection of the future "baseline" condition. The result is a comparison of impacts to the no action alternative, not the affected environment which is the NEPA requirement. EPA has raised this issue in our March 24, 2003, and October 23, 2003, letters, and it has not been altered in the document. We have several interagency discussions concerning this portrayal of the affected environment without resolution. The Final EIS needs to be modified to present an evaluation of the existing affected environment, not a projected, future "baseline" that may or may not occur.

Pg. 3-31 - Water Quality Analysis - The section uses the past 10 years of water quality data to represent the affected environment. This points out the inconsistency of the various approaches to "baseline" in the document. The other resource areas should use a similar approach to the affected environment with actual, recent data being used to represent the affected environment, not a projection of future conditions. The projected future conditions that result from the no action alternative should be the impacts of the no action alternative. This is also important from the Clean Water Act perspective to assure that sufficient information is available to make a determination of which alternative would have the least adverse impact on the aquatic ecosystem.

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The discussion of available data does not mention water quality data acquired by the lead agencies as part of their mitigation commitments from previous portions of the project (see Appendix A, Environmental Commitments # 24 & 25.) Such data, particularly as it relates to the water quality of Utah Lake, should be included in the data evaluation to describe the affected environment. In general, it appears that the available water quality data for the project area is limited for a water quality analysis of this nature. The water quality of Utah Lake has been an important concern since the beginning of the Central Utah Project. It is now being further complicated by use of two baselines, one of which is labeled historic and one which is labeled simulated.

Pg 3-338 - Section 3.27.4 discusses the cumulative wildlife impacts and mentions the future creation of the Utah Lake Wetland Preserve. The text indicates that the preserve would provide alternate habitat for wildlife displaced by the ULS project and its alternatives. The text should be expanded to document which wildlife species occur in the direct impact zone for the ULS project and how these species would relocate to the wetland preserve, and how these species would benefit from a preserve which is currently existing habitat and, as such, is currently inhabited by wildlife.

Pg 3-343 - This discussion presents a list of trade-offs for the various alternatives. In particular, it points out increases in phosphorus concentrations to levels above pollution indicator levels in the three Utah Lake tributaries impacted by the project. Based on the water quality analysis, these values (phosphorus concentrations) are increased under both action alternatives, while the no action alternative (3.28.4) indicates phosphorus concentrations would also increase. This inconsistency with the water quality analysis should be resolved.

This discussion also mentions that the no action alternative does not provide a means of meeting M&I water delivery needs. However, none of the alternatives actually meet the M&I water delivery needs of the project area, rather they meet a different proportion of the total demand. As such, each alternative, including the no action alternative, does meet the basic project purpose of "increasing M&I supply."

This discussion indicates the no action alternative does not result in implementation of water conservation measures. To-date, water conservation has been essentially a voluntary mechanism within the CUP service area, and, as presented in the DEIS, would continue to be so. As such, as presented, none of the alternatives "require" water conservation. If water conservation is a project purpose, then alternatives should be developed to address water conservation independently of the ULS system. As discussed above, water conservation is an important requirement of CUPCA, and applies to all portions of CUP, including the no action alternative. The no action alternative should include similar water conservation requirements as the "action" alternatives.

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This discussion lists "maximization" of M&I water supply as a trade-off/benefit for the various alternatives. It also lists both the action alternatives as "maximizing" the Bonneville Unit M&I water supply, yet the action alternatives provide differing amounts of M&I water. How can differing amounts of supply both be considered as "maximization" of the supply?

Pg 3-347 - Section 3.29.1 appears to be the only place where project costs for the action alternatives are provided in the DEIS. Since project costs are used in several places to justify various portions of the preferred action, as well as eliminate other alternatives from detailed consideration, a detailed table of project costs for each alternative (to include alternatives that were eliminated because of costs) needs to be included in the EIS. Without this information, a valid "practicability" conclusion on the 404(b)(1) evaluation cannot be made.

Appendix C: 404(b)(1) evaluation.

Section C.1.1 - This section indicates that CWA Section 404(r) provides an exemption ".... from the requirements to obtain a Section 404 Permit...." EPA suggests that this section be modified to indicate that Section 404(r) indicates that a project is not prohibited or subject to Section 404 if information on the effects of the project, including consideration of the 404(b)(1) Guidelines is included in the EIS for the project. It is also necessary for the EIS to be submitted to Congress before any discharge for the project occurs, and prior to either Congressional authorization or appropriation for the project.

Section C.2.1 - The project purpose section mentions "needs" for the project. EPA suggests the term "need" be removed as the Guidelines do not include the term "need" and do not infer any distinction between "purpose" and "need." The basic project purpose is the underlying purpose of the project. In this case, this is essentially a rephrasing of the DEIS' project "need," not something different than a project need. For the ULS project, the basic project purpose should be to provide increased M&I water supply.

This Section goes on to state that the project purpose is to define alternatives to provide M&I water. EPA believes the basic project purpose is to increase M&I water supply. While the Guidelines require an evaluation of alternatives, the "purpose" of a project which requires a 404 permit is not to define alternatives for the project.

Section C.2.2 - This section presents a description of the allocation of the water supply, and the structures necessary to complete the allocation. The allocation portion needs to be revised so the reader can determine the actual volume of M&I water supply supplied to each entity, and volumes can be readily summed to the total of 60,000 AF presented at the beginning of the discussion. A table at this point comparing the project allocation for the alternatives would be useful.

Section C.2.3 - This section discusses alternatives that were considered but found to be impracticable. Practicability under the Guidelines is based on the concepts of costs, logistics, and technology. Several of the alternatives were eliminated based on costs, however, no comparable cost information is presented to determine if the analysis is reasonable. The project costs for all

the alternatives, both those considered in detail, and those eliminated, need to be presented so the reader can review the actual costs of each alternative in a comparative manner to determine the significance of the differences between the alternatives. A table needs to be provided with total project costs (construction costs and annual operation and maintenance costs as calculated in Definite Plan Report for the preferred alternative) and M&I water supply presented for each alternative, including those determined to be impracticable based on cost analysis. Based on the above, cost per acre foot of delivered M&I water also needs to be presented for each alternative. There is a very brief discussion of the cost of the preferred alternative on DEIS Page 3-347. That discussion indicates that the cost presented would be less because of water sales. We compared this cost estimate with that provided in Table 9-7 of the March, 2004, Draft Definitive Plan Report and could not develop a comparable value. In order to use the cost of an alternative as rationale to eliminate the alternative, the cost estimates for all alternatives need to be developed equally so they can be compared equally. There needs to be enough information in the analysis so that the analysis is defensible and not arbitrary and capricious.

This impracticability analysis also includes environmental impacts as rationale for eliminating several alternatives. While the impacts for several alternatives may be greater for various resources than other alternatives, that is not a reason to determine an alternative is impracticable. For projects that meet the project purpose (in this case, the basic project purpose to be accomplished is increased M&I water supply), costs, logistics, and technology are the criteria against which to determine practicability. Projects that are determined to be practicable are then examined to determine which is the least environmentally damaging. An alternative can be eliminated for excessive environmental impacts to the aquatic environment, but this is not part of the practicability analysis. This section of the 404(b)(1) evaluation should be rearranged so that alternatives which are eliminated because of environmental impacts are discussed under part C.12 in the 404(b)(1) evaluation.

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United States Department of the Interior

National Park Service

Midwest Region
601 Riverfront Drive
Omaha, Nebraska 68102-4226

JUL 15

DEC-04/0016 (MWR-CRSP/G)

Mr. Mark Breitenbach
Project Manager
Central Utah Water Conservancy District
335 West University Parkway
Orem, UT 84058

Dear Mr. Breitenbach:

This is in response to your request for comments on the Utah Lake Drainage Basin Water Delivery System Draft Environmental Impact Statement.

National Park Service has assigned the reference number DEC-04/0016 for this review. We have reviewed the subject draft in relation to any possible conflicts with the Land and Water Conservation Fund (L&WCF) and the Urban Park and Recreation Recovery Program (UPARR). We have found the following L&WCF projects that may possibly be in the area of this project and could be impacted.

| | |
|---|---|
| 49-00258 | Utah Lake State Park |
| 49-00172 | Vivian Park |
| 49-00295 | Provo River Parkway |
| 49-00138 | Wasatch Mountain State Park |
| 49-00130 | Deer Creek State Recreation Area |
| 49-00050 | Hobble Creek |
| 49-00115 | Springville Golf Course |
| 49-00312 | Jolly Ranch |

We recommend you consult directly with the official who administers the L&WCF program in the State of Utah to determine any potential conflicts with section 6(f)(3) of the L&WCF Act (Public Law 88-578, as amended). This section states:

> "No property acquired or developed with assistance under this section shall, without the approval of the Secretary [of the Interior], be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the ten existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location."

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The administrator for the L&WCF program in Utah is Mr. Lyle Bennett, Grants Coordinator, Division of Parks and Recreation, 1594 West North Temple, Suite 116, Salt Lake City, Utah 84116. Mr. Bennett's phone number is 801-538-7354.

Sincerely,

Terree Klanecky

Terree Klanecky
Outdoor Recreation Planner
Midwest Region

# Utah Lake Drainage Basin
# Water Delivery System
## Bonneville Unit, Central Utah Project

## Final
## Environmental Impact Statement

## *Appendix J*
## *Consultation with*
## *Department of Energy, Western*
## *Area Power Administration*

**Department of Energy**
Western Area Power Administration
P.O. Box 11606
Salt Lake City, UT 84147-0606

Mr. Ronald Johnston
Program Director
CUP Completion Act Office
Department of the Interior
302 East 1860 South
Provo, UT 84060-7317

Dear Mr. Johnston:

This is to inform you that Western Area Power Administration intends to pursue marketing the hydro resources from the proposed Diamond Fork power plants, which are a feature of the Utah Lake System Project, Bonneville Unit of the Central Utah Project, a CRSP participating project.

Following ongoing discussions with the Central Utah Project Completion Act (CUPCA) Office and our August 17 meeting, Western understands the CUPCA Office proposes the base power costs, as described in the draft 2004 Definite Plan Report (DPR), would be fixed at 37 mills per kilowatthour (kWh) for the life of the plant plus an additional charge for operations and maintenance (O&M) costs (presently estimated to be 8 mills per kWh). Western also understands that the O&M costs could escalate annually and that the CUPCA Office is willing to consider ways to control O&M cost escalation. In addition, we understand that one of the options being considered is for the Central Utah Water Conservancy District to repay reimbursable costs allocated to power.

Western understands that in preparing the final DPR a more detailed estimate of annual O&M costs will be prepared. This could result in a redistribution of the 45 mills per kWh. For example, if the O&M increased to 15 mills, the fixed cost per kWh would decrease to 30 mills.

Western is interested in working with the CUPCA Office and the Bureau of Reclamation (Reclamation) by fulfilling its role in marketing the Federal hydropower. At this time, we cannot agree to just purchase the power since it is critical that we have customers interested in the product. Western is uncertain if the resources would be blended in the current Salt Lake City Area Integrated Projects (SLCA/IP) marketing resources or if these resources would be marketed separately since the project is not expected to be completed for perhaps 15 years.

We believe there will be interest in the power if the cost is competitive and the product is market compatible. However, our marketing procedures will require us to pursue such interest through a public process. Completion of an adequate public process may take from 9 months to a year. We will need to develop the proposal, publish it in the Federal Register, give interested parties time to respond, evaluate and reply to the responses, and possibly have further dialogue publicly before we can make a final decision about the conditions of the marketing of the power. This means we will need sound O&M estimates and a clear definition of how the project will be operated, including roles and responsibilities of the various parties, before we begin.

Our intention is to start the process early this fall by discussing with our existing SLCA/IP customers the value of integrating the power with the SLCA/IP. Depending on our decisions, we would follow with a formal public process at some level.

We are looking forward to working with the CUPCA Office and Reclamation on this project.

Sincerely,

Bradley S. Warren

Bradley S. Warren
CRSP Manager