U.S. Department of the Interior
Finding of No Significant Impact

FINDING

The U.S. Department of the Interior (DOI) finds that neither Alternative 1 nor Alternative 2, as described in the Environmental Assessment (EA) for Phase 2 of the East Juab Water Efficiency Project (EJWEP), would have a significant impact on the quality of the human or natural environment and that an Environmental Impact Statement is not required. DOI concurs with the recommendation of the Central Utah Water Conservancy District (CUWCD) that Alternative 1 is the Preferred Alternative for the proposed project. This decision was based on a thorough review of the EA and the public comments received on the EA. This decision is in accordance with the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-90), as amended, the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations (CFR) 1500-1508), and DOI's Regulations for Implementing the Procedural Provisions of NEPA (43 CFR Part 46).

DECISION

DOI has decided to authorize implementation of Alternative 1 for the proposed project. CUWCD, in cooperation with the Nephi Irrigation Company, is hereby authorized to implement the following project features:

- Install approximately 2,200 feet of pipeline east of I-15 (Salt Creek diversion irrigation pipeline)
- Install a perforated infiltration pipeline and/or infiltration facilities east of I-15 to recharge the groundwater basin
- Rehabilitate up to five existing Nephi Irrigation Company groundwater wells to restore the pumping capacity to the full water right flow rate
- Install a Supervisory Control and Data Acquisition system to increase the efficiency of water management
- Install approximately 5,000 feet of pipeline extensions within the lateral distribution system
- Add up to 12 new booster pump locations
- Install approximately 2,800 feet of overhead power line extensions and service connections to the new booster pump locations

It has been determined that Alternative 1 would achieve the Purpose and Need identified in the EA without significant impacts to environmental resources described in Chapter 3 of the EA. Final design must be reviewed and approved by CUWCD, in coordination with the Department of the Interior.

This proposed project is needed to more efficiently utilize surface water and groundwater resources in eastern Juab County. The project is intended to achieve the following purposes:

- Facilitate the conjunctive use of surface and groundwater resources
- Complete the EJWEP to make the irrigation system more efficient
- Increase on-farm water use efficiency
- Reduce irrigation water shortages by reducing distribution and conveyance system losses
- Restore well pumping capacity to the full existing water rights
- Provide a minimum of 25 pounds per square inch (psi) of pressure throughout the system to

allow all water users to convert existing flood irrigation methods to sprinkler irrigation

- Recharge surplus local surface water supplies in order to augment the yield of the local groundwater basin

REASONS FOR THE DECISION

This finding of no significant impact is based on the following:

1. The Preferred Alternative would have no significant effect on such unique characteristics as cultural resources, wilderness areas, or wetlands
2. The environmental effects of the Preferred Alternative would be neither controversial nor do they involve unique or unknown risks
3. The Preferred Alternative would have no effect on species either currently listed or proposed for listing as candidate, endangered, or threatened species, and would have no effect on designated critical habitat for these species
4. The Preferred Alternative would not threaten to violate Federal, State or local laws or requirements imposed for protection of the environment

DOI has analyzed the environmental effects, public comments, and the alternatives in detail and believes that the Preferred Alternative best meets the Purpose and Need described in the EA.

PUBLIC INVOLVEMENT

DOI and CUWCD have carried out public involvement activities for this proposed project over the past year. A Notice of Intent to Prepare an EA was published in the March 21, 2008 Federal Register (Volume 73, Number 56, page 15186). A public scoping meeting was held in April 2008. Press releases were issued to print and electronic media announcing the proposed project. During scoping, the project team consulted specifically with the U.S. Army Corps of Engineers - Utah Regulatory Office and the Utah Division of Wildlife Resources (results of these consultations are contained in Section 4.1 of the Final EA). A Notice of Availability of the Draft EA was published in the December 2, 2008 Federal Register (Volume 73, Number 232, pages 73344-73345). The project team mailed the Draft EA to stakeholders and made the Draft EA available at the following locations: Nephi Library, CUWCD office in Orem, CUWCD web site, and DOI's Central Utah Completion Act Office in Provo. A list of the agencies and organizations that were notified of project scoping and Draft EA availability is contained in Appendix C of the Final EA.

After evaluating the public comments, it was determined that only minor revisions to the Draft EA were needed. A summary of all comments and responses can be found in Section 4.4 of the Final EA. The project file in the CUWCD office contains a copy of the comment letters as well as a complete description of all public involvement activities.

SUMMARY OF PROJECT IMPACTS AND MITIGATION

This EA determined that the Preferred Alternative would not affect the following environmental resources: prime and unique farmlands, agriculturally protected areas, floodplains, wild and scenic rivers, energy, land use, social, environmental justice, public health and safety, special use/recreation lands, threatened and endangered species, or hazardous waste sites. Therefore, no mitigation is proposed for these resources. In addition, the EA concluded that the Preferred Alternative would not have cumulative or secondary impacts to these resources.

The EA determined that the Preferred Alternative would not significantly affect the following environmental resources: soils; water resources; water quality; air quality; noise; vegetation; invasive species; wetlands; wildlife and aquatic; historic, cultural, and archaeological resources; transportation;

economics; and visual. The following table summarizes the Preferred Alternative's anticipated impacts and mitigation.

Impacts	Mitigation
Soils	
Temporary impacts to soils within the project area would occur as a result of construction. Specifically, soils would be temporarily displaced during installation of the Salt Creek diversion irrigation pipeline and the Salt Creek diversion groundwater pipeline and infiltration facilities. Furthermore, soils would be disturbed when conducting groundwater recharge activities, extending pipelines, and installing new booster pumps. Soil impacts would be short-term and negligible.	Best Management Practices identified in the EA will be implemented to avoid or minimize potential impacts to soils
Water Resources	
The Salt Creek diversion irrigation pipeline would dewater Salt Creek channel east of I-15 during low flow periods in the irrigation season. As a result, the groundwater recharge associated with the percolation of surface water in Salt Creek channel east of I-15 would be reduced during these low flow periods. It is anticipated that the Salt Creek diversion irrigation pipeline would increase Salt Creek channel surface flows west of I-15 by an estimated amount of up to 7 cfs, as a result of reduced surface water seepage. The project would also construct the Salt Creek diversion groundwater recharge pipeline and facilities in infiltration areas between the Salt Creek diversion structure and I-15. In conjunction with Salt Creek channel surface flow infiltration during periods of excess flow, the groundwater recharge pipeline and infiltration facilities are anticipated to recharge the groundwater supply in the project area by up to 10 cfs during these periods.	It is anticipated that reduced groundwater recharge during low flow periods would be fully offset by increased groundwater recharge during excess flow periods. Accordingly, no mitigation is planned.
Water Quality	
Temporary impacts to surface water quality would occur as a result of construction. An increase in sedimentation would occur in Salt Creek flows as a result of soil erosion during the construction process. No long-term changes in groundwater quality are anticipated to occur.	Clean Water Act Section 401, 402, and 404 authorizations will be obtained prior to project commencement, and all required conditions will be adhered to. Furthermore, Best Management Practices identified in the EA will be implemented to avoid or minimize potential impacts to water quality.

Impacts	Mitigation
Air Quality	
The project has no features that would result in long-term emissions of air quality pollutants. Short-term impacts would include dust and vehicle emissions generated during the construction of the project. No long-term detectable impacts to air quality would occur.	During construction, a plan for fugitive dust control and suppression will be implemented. Mitigation measures in such a plan may include the use of water trucks, limited activities during times of excessive wind, cleaning of equipment, and techniques to prevent erosion and dust from graded slopes. Additionally, construction equipment emissions will not exceed federal or state standards.
Noise	
The project has no features that would result in long-term increases in noise. During the late irrigation season, the Salt Creek diversion irrigation pipeline would deliver a majority of the water between the Salt Creek diversion structure and I-15. Therefore, at certain times of the year the noise generated by the surface water flow in Salt Creek channel east of I-15 would be removed. The construction activities would result in temporary increases in ambient noise levels on an intermittent basis. Noise levels would fluctuate depending on the construction activity, the type of equipment and duration of use, the distance between the noise source and receiver, and the presence or absence of noise attenuation barriers.	No mitigation is planned.
Vegetation	
The Preferred Alternative would potentially impact the vegetation in the project area by activities associated with the construction of the Salt Creek diversion irrigation pipeline, construction of the Salt Creek diversion groundwater recharge pipeline and facilities, or the extension/replacement of groundwater well pipelines. These activities would result in the removal of vegetation along pipeline routes. During the irrigation season, at times of low-flow in Salt Creek, the Salt Creek diversion irrigation pipeline would capture portions or all of Salt Creek flows east of I-15. This may indirectly impact riparian and/or wetland vegetation (resulting in death or stress) east of I-15 by seasonally, or intermittently, removing or reducing the hydrology component.	Upland areas disturbed by construction activities will be revegetated with a native seed mix. . Vegetation impacted in riparian and wetland habitats will be addressed through the USACE permit process.
Invasive Species	
Construction activities associated with Alternative 1 would potentially provide opportunities for the movement of invasive species within the project area.	Best Management Practices identified in the EA will be implemented to avoid or minimize the movement of invasive species.

Impacts	Mitigation
Wetlands	
The project would potentially impact Salt Creek channel and wetland habitats by activities associated with construction and operation of the Salt Creek diversion irrigation pipeline, the Salt Creek diversion groundwater recharge pipeline and facilities, and/or the groundwater well pipeline extensions. The Salt Creek diversion irrigation pipeline would capture portions or all of the surface water in approximately 2,200 feet of Salt Creek channel. Therefore, east of I-15 the operation of the Salt Creek diversion irrigation pipeline would result in Salt Creek channel being dewatered seasonally. The construction of pipelines would result in temporary, and potentially permanent, removal of riparian wetland vegetation adjacent to Salt Creek. Although quantification of final wetland impacts can not be determined until additional design is completed, it is anticipated that direct wetland impacts would be less than 1/4 acre. During the irrigation season, at times of low-flow in Salt Creek, the Salt Creek diversion irrigation pipeline would capture portions or all of Salt Creek flows east of I-15. Therefore, the project may indirectly impact wetland habitats east of I-15 by seasonally, or intermittently, removing or reducing the hydrology component of these wetlands.	All efforts to avoid wetland habitats will be explored prior to selecting the location of the Salt Creek diversion irrigation pipeline. Where it is not feasible or practicable to avoid wetlands, measures will be implemented to minimize wetland impacts (i.e., crossing wetlands perpendicularly when possible, no equipment in Salt Creek channel). A Section 404 Clean Water Act permit will be obtained prior to conducting activities that will impact jurisdictional wetlands and all conditions and mitigation requirements of that 404 permit will be adhered to.
Threatened and Endangered Species	
There are no recorded ULT populations in the project area and field observations conducted in August and September of 2008 revealed no observations of ULTs. In accordance with the ESA, it has been determined that the project would have "no effect" on the ULT. Therefore, the project would not directly impact federally-listed species or designated critical habitat protected under the ESA.	No mitigation is planned.

Impacts	Mitigation
Wildlife and Aquatic Resources	
During the irrigation season, at times of low flow in Salt Creek, the Salt Creek diversion irrigation pipeline would capture portions or all Salt Creek surface water occurring in approximately 2,200 feet of Salt Creek channel east of I-15. Therefore, the operation of the Salt Creek diversion irrigation pipeline would result in Salt Creek channel being dewatered seasonally east of I-15. As a result of dewatering, there would be a direct impact (reduction or removal) to a water source upon which small mammals and songbirds rely. Because of additional water sources near the project area, the impacts to wildlife and songbirds would be negligible. The irrigation activities associated with the dewatering of Salt Creek channel would remove or reduce surface flow in Salt Creek channel east of I-15, and inhibit fish foraging, breeding, and migration opportunities. West of I-15, the operation of the Salt Creek diversion irrigation pipeline would result in Salt Creek channel having an additional surface flow of up to 7 cfs during the irrigation season. Accordingly, this is the amount historically lost to groundwater percolation through the reach of Salt Creek channel east of I-15. Additional water in Salt Creek Channel through Nephi would benefit small mammals, songbirds, and fish, particularly in very dry years when surface flows are low. Impacts to small mammals and songbirds which would occur as a result of construction activities, would generally be the short-term disturbance of foraging, breeding, and nesting areas. Some of the construction may require the permanent removal of vegetation, resulting in long-term habitat loss. Construction activities requiring the dewatering of Salt Creek channel would remove surface flow in Salt Creek channel east of I-15, and inhibit fish foraging, breeding, and migration opportunities. Vegetated riparian areas adjacent to Salt Creek channel east of I-15 may be indirectly impacted by the stress or eventual death of plant species, resulting in permanent loss or degradation of habitat for small mammals and songbirds which feed, breed, or nest in these areas. It is anticipated that over time, some riparian vegetation east of I-15 may be stressed or die as a result of dewatering Salt Creek channel seasonally. West of I-15, no indirect impacts would occur to wildlife or aquatic habitats.	Best Management Practices identified in the EA will be implemented to avoid or minimize potential impacts to wildlife and aquatic resources.

Impacts	Mitigation
Historic, Cultural, and Archaeological Resources	
The Salt Creek diversion irrigation pipeline would capture portions or all of the surface water during the irrigation season in approximately 2,200 feet of Salt Creek channel, east of I-15. Therefore, the operation of the Salt Creek diversion irrigation pipeline would result in Salt Creek channel, east of I-15, being dewatered seasonally. West of I-15, it is anticipated that the operation of the Salt Creek diversion irrigation pipeline (east of I-15) would result in up to approximately 7 cfs more surface water in Salt Creek channel through Nephi than has historically been the case. The Utah State Historic Preservation Office concurred that the proposed project would have "no adverse effect."	No mitigation is planned.
Transportation	
The construction activities would potentially create temporary traffic congestion in the project area. Specifically, the delivery of materials and installation of pipelines or booster pumps may cause short-term traffic delays on State Route 132 or local roadways in Nephi.	Coordination with City officials will take place to provide notification of construction periods and possible transportation detours.
Economics	
The project would provide short-term economic benefits through goods purchased (i.e., construction materials, food, gas, etc.) and labor hired for engineering, construction, and maintenance.	Access will be maintained to all businesses during construction.
Visual	
During the irrigation season, at times of low flow in Salt Creek, the Salt Creek diversion irrigation pipeline would capture portions or all of the surface water in approximately 2,200 feet of Salt Creek channel. Therefore, east of I-15, the operation of the Salt Creek diversion irrigation pipeline would result in Salt Creek channel being dewatered seasonally. The operation of the Salt Creek diversion irrigation pipeline would result in Salt Creek channel being dewatered seasonally east of I-15. As a result of reducing or removing water from the channel seasonally, some vegetation along that stretch of Salt creek channel may eventually show signs of stress or die.	No mitigation is planned.