Finding of No Significant Impact
For
Green River, Utah Unit of the Colorado River Salinity Control Program
Emery and Grand Counties, Utah

Introduction

The Green River, Utah Unit plan/environmental assessment were developed under authority of the Soil Conservation and Domestic Allotment Act of 1936. Funding for implementation is expected to be provided under the Federal Improvement and Reform Act of 1996, Public Law 104-127, as amended; Food Security Act of 1985, Subtitle D, Title XII, 16 U.S.C. 3830 et seq. An environmental assessment was undertaken in conjunction with the development of the salinity control plan. This assessment was conducted in consultation with local, State and Federal agencies, as well as interested organizations and individuals. Copies of the plan/environmental assessment may be obtained from Sylvia Gillen, Utah State Conservationist at the following address. Data developed during the environmental assessment are available for public review upon request.

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Background

The Green River, Utah Unit has been identified by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS) as an area for potential salt load reduction activities.

The combined plan / environmental assessment has three major components: (1) to determine the contribution of salt loading from the irrigated agricultural lands; (2) to determine the opportunity for USDA NRCS to reduce salt loading through improvements to the irrigation delivery and application systems; (3) to determine environmental effects of the proposed action.

Approximately 4,900 acres are irrigated in the Green River Project Area, located in Emery and Grand Counties in Utah. Irrigation water is provided to all of the irrigated land from diversions out of the Green River, either through pumping directly from the river, or from canals that divert water from the Green River at distinct points on the river. Three main canals supply most of the irrigated acreage with water turned out onto the fields using flood irrigation techniques. 1,400 acres already utilize sprinkler irrigation or other higher efficiency irrigation systems. 2,600 additional acres will be eligible for funding of salinity reduction through installation of higher efficiency irrigation systems. Approximately 900 acres are idle each year.

The majority of cultivated soils in the project area are formed from alluvium from the Mancos shale formation. This formation contains considerable amounts of calcium, sodium, and sulfate

salts. The soils are inherently saline, ranging from slightly saline to strongly saline. Because of the arid climate, salts have not been leached naturally from the soil profile, and the application of excess irrigation water to the soil greatly accelerates the leaching process, resulting in salt loading to the Green River and the Colorado River.

The USGS report "Hydrology and Water Quality in the Green River and Surrounding Agricultural Areas near Green River in Emery and Grand Counties, Utah, 2004-05" estimates the annual salt load from agriculture to be 15,700 tons/year. It was estimated that 5,700 tons of salt were a result of off-farm seepage losses from canals and lateral ditches. It is estimated that on- farm deep percolation from inefficient farm irrigation systems contributes approximately 10,000 tons of salt to the Green River.

The preferred alternative plan contains both structural and management practices necessary to improve irrigation efficiencies, which results in reduced salt loading to the Green River and Colorado River. The preferred alternative when fully implemented would reduce salt loading to Green River and the Colorado River by 6,544 tons, or a 42% reduction of the current salt loading level of 15,700 tons. On-farm measures in the preferred plan will account for the entire 42% salt load reduction.

Consultation – Public Participation

The NRCS led the public participation process. A public meeting was held during development of the plan. Federal agencies, State agencies, local agencies, and elected representatives were consulted during project plan development. The US Fish and Wildlife Service was consulted and concurred with the biological assessment.

Proposed Action

The proposed action in this plan includes:

- Based on past experience in salinity control units, 80% of the eligible 2,600 acres (2,080 acres) will be treated with sprinkler and water management practices to reduce salt loading to the river by 6,540 tons/year. On treated acres water application efficiency will increase from an average of 35% to and average of 70%.

- A commitment of NRCS to make available financial assistance to local landowners who volunteer to replace habitat values lost due to project implementation (such as artificial wetland and riparian habitat that is lost where excess flood irrigation and/or seepage water is removed) and assist them in the creation of a Wildlife Habitat Development Plan.

- Publish an annual monitoring and evaluation report which measures the effectiveness of the project as it relates to salt load reduction, economic impacts, and wildlife habitat replacement.

Total federal contribution for proposed project is estimated to be $8,700,000. Financial assistance (FA) accounts for 60% of that and technical assistance (TA) accounts for 40%. Total on-farm treatment (FA+TA) cost is estimated to be $4,182/acre. It is recommended that the

federal cost-share used to implement the plan account for up to 75% of the planning and construction cost.

A cost effectiveness analysis was used to determine the annual cost per ton of salt reduction. The reduction of salt loading resulting from this proposed action is estimated to be 6,540 tons per year. The cost per ton of salt removed for this project is estimated to be $93.

Basic Conclusions

The conservation treatment associated with this proposed action will not change the air quality or potable water quality of the area. The project will not create any new hazard to the transportation or utility infrastructure in the project area. For these reasons it is determined that public health and safety conditions within the project area will not be significantly impacted.

There are no known unique geographic features in the project area that could be impacted by the proposed action.

During the inter-agency review process, no highly controversial effects were identified, and general comments were addressed to the satisfaction of all parties. Past experience with similar projects in the area provide a high degree of confidence in the predicted impacts of the proposed actions.

This project is not unusual and is similar to other projects currently being implemented in the vicinity of Manila, Utah, Price, Utah, and Uintah Basin, Utah. For this reason NRCS feels confident that no new precedents are being set with implementation of this project.

No significant individual or cumulative effects to the human environment are expected in consideration of the context and intensity of the proposed action.

Identified cultural resources should not be impacted by the proposed action because they would be located through an intensive pedestrian cultural resource survey and avoided with a 65 foot protective buffer zone as is stipulated in the NRCS/UTSHPO Memorandum of Understanding. In the event that a cultural resource can not be avoided, NRCS would determine appropriate mitigation measures in consultation with the UTSHPO and other consulting parties. In consideration of NRCS policy and the agreements in place to protect cultural resources, this project will not impact cultural resources within the project area.

Threatened and endangered species habitat does exist within the project area. All determinations of potential effects have been agreed upon in consultation with the US Fish and Wildlife Service.

Communications with State and Federal natural resource management agencies did not reveal any violations of law, including the National Environmental Policy Act.

Wetlands do exist within the project area. Most of the wetland acreage that occurs within the project boundaries are artificial, "irrigation dependent" wetlands. Wetland functions for the majority of these wetlands are already impacted by the land use associated with them. The

proposed action will likely impact both the distribution and size of these wetlands, with associated change in the vegetative composition. NRCS has identified geographic areas within the project area where habitat replacement practices may be implemented for the voluntary replacement of wildlife habitat values forgone. Natural wetlands also occur within the project area; the distribution, size, and function of these wetlands should not be impacted by the proposed action.

Water quality of Green River, a tributary to the Colorado River, will be enhanced due to a reduction in salt loading from irrigation and agricultural sources.

Agricultural producers in the area are supportive of the plan because of the positive economic benefits to the area, improved production potential, water conservation potential, and agricultural sustainability in the area.

Ultimate Conclusion

I find that neither the proposed action nor the no action alternative is a major Federal action significantly affecting the quality of the human environment.

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