

USFWS 2010 Report on Environmental Contaminants RIPRAP Activities

Note: this is an annual report from the U.S. Fish and Wildlife Service regarding its activities to address contaminant concerns outlined in the RIPRAP. Contaminants remediation is conducted independently of and funded outside of the Recovery Program.

II.B. Support actions to reduce or eliminate contaminant impacts

Pesticide exposure prevention The Grand Junction office continues to work with the local mosquito control agency to prevent mosquitocide exposure of endangered Colorado River fish in grow-out ponds (68 acres), as well as backwater and wetland habitat in approximately 30 miles of the Colorado and Gunnison rivers. The total treatment area is approximately 73 square miles, or a total of 46,720 acres.

Mercury exposure to the endangered Colorado pikeminnow The objectives of this investigation were to determine mercury concentrations in Colorado pikeminnow (CPM) collected from several different river reaches within critical habitat by using biopsied muscle plugs, and to develop a regression equation between CPM length and mercury concentrations.

An FY2010 interim report was submitted to the Service's R9, Division of Environmental Quality. A final report is being prepared for completion in FY2011. The Service presented the results of this investigation at the annual Colorado River Endangered Fish Recovery Program Researchers Meeting in January, 2010.

Salinity Coordinator The Grand Junction EC staff continues in their role as the Salinity Coordinator for the Service on the Colorado River Basin Salinity Control Program. This position is responsive to the request by various Federal and state and local programs to reduce salinity concentrations within the upper Colorado River Basin to meet salinity compact requirements with Mexico at the US/Mexican Border. Direct results of the Salinity Control Program are reductions in canal leakage, improved delivery systems, more efficient irrigation practices, and protecting wildlife habitat values. This program ties into the Aspinall Biological Opinion to reduce selenium concentrations in the Gunnison Basin with the ultimate effect of reducing selenium concentrations throughout the upper and lower Colorado River Basins.

Pariette Draw Selenium and TDS loads to Green River: The Pariette Draw is a tributary of the Green River that is not supporting its warm water fisheries and waterfowl beneficial use classifications due to violations of the criterion for Se. The Utah Ecological Services (ES) Field Office worked with Utah Division of Water Quality to develop TMDLs for selenium, TDS, and boron in Pariette Draw. The TMDL process will help determine appropriate best management practices needed to mitigate the potential effects of TDS and boron to Pariette Draw and Green River aquatic habitats. The Utah ES office will work with Utah Division of Water Quality, Utah State University, and other stakeholders in 2011 to conduct water quality monitoring and wetland and pond characterization in Pariette Draw Watershed.

II.B.1. Evaluate effects of selenium (Ongoing)

The Grand Junction EC staff has finalized a report titled *Water Quality Assessment of Razorback Sucker Grow-out Ponds Grand Valley, Colorado*. Selenium toxicity guidelines were exceeded in water, sediment, dietary items, and razorback sucker muscle plugs from several ponds (most notably Maggio and Clymers ponds), indicating increased risk of reproductive impairment. Stocked razorback suckers recaptured from the rivers at least 8 months post-stocking still retained high selenium tissue residues acquired from the grow-out ponds. River-stocked razorback suckers had significantly higher selenium concentrations than native bluehead suckers (*Catostomus discobolus*) and native flannelmouth suckers (*Catostomus latipinnis*) collected in the Colorado and Gunnison Rivers in the Grand Valley. The levels of selenium we found in razorback suckers are likely reproductively problematic. Management recommendations for grow-out ponds are presented to improve survival and condition of razorback suckers.

II.B.1.a. Identify actions to reduce selenium contamination to levels that will not impede recovery (Ongoing)

Selenium Task Force The Grand Junction office continues to engage with the Selenium Task Force.

Technical Assistance The Aspinall Programmatic Biological Opinion (BO) was finalized. A Selenium Reduction Program was proposed in conjunction with the BO, to implement remediation projects associated with selenium exceedences in the Uncompahgre Project area and downstream.

The Grand Junction EC staff have participated in Recovery Program Aspinall ad hoc committee meetings to develop a study plan to evaluate effects of the Aspinall Unit Reoperations to benefit habitat and recovery of endangered fishes. Grand Junction EC staff have submitted a new off-refuge proposal which was accepted for 2011 funding, to determine selenium concentrations in endangered fish in the Gunnison River, as well as surrogate fish species in the Gunnison River. While CRFP staff conduct endangered fish population surveys, muscle plug samples will be collected for selenium analysis. Results from this selenium study will be used in the new Selenium Management Program (SMP) to determine baseline selenium concentrations and evaluate effectiveness of selenium remediation efforts. Selenium concentrations in endangered fish in the Gunnison River have not yet been determined. Selenium concentrations in surrogate fish species (roundtail chub and speckled dace) collected in 2010 and 2011 will be compared to the same species collected in 1992, to investigate any changes over the last 20 years and remediation efforts taken thus far by the selenium task force. Grand Junction EC staff have been involved in numerous planning meetings with the selenium task force and the SMP work group to develop the SMP, along with the long-term plan. Discussions have included many stakeholders, and goals are to determine implementation schedules, benchmarks, responsible entities, monitoring needs, and coordination with ongoing Recovery Program activities.

The Grand Junction EC staff provided technical assistance to the Albuquerque ES office regarding the proposed coal-fired power plant, the Desert Rock Energy Project, and potential

effects to endangered Colorado pikeminnow and razorback sucker from aerial deposition of mercury and selenium into the San Juan River from the plant. Both offices have partnered to assess current mercury residues in Colorado pikeminnow.

Prediction equation for selenium in fish tissue A final report for the contaminant investigation entitled *Selenium in Fish Tissue: Prediction Equations for Conversion between Whole body, Muscle, and Eggs* is being finalized. We found that different fish species incorporate different selenium loads into eggs and ovaries, and this may not be apparent from looking at only whole body selenium concentrations.

II.B.2.a. Ensure that all new petroleum product pipelines have emergency shutoff valves (Ongoing)

USFWS Ecological Services addresses this through Section 7 consultation.

II.B.2.b. Identify locations of existing petroleum-product pipelines potentially affecting critical habitat and determine if they have emergency shutoff valves. (Pending)

The Pipeline and Hazardous Materials Safety Administration has developed the Pipeline Integrity Management Mapping Application (PIMMA) for use by pipeline operators and Federal, state, and local government officials. This should be a valuable tool in assessing threats to endangered fish. FWS-ES should investigate use of PIMMA to address existing pipelines that may need shutoff valves.

II.B.3. Review and recommend modifications to State and Federal Hazardous materials spills emergency response programs (Ongoing)

Spill contingency response EC staff from Grand Junction and Salt Lake City maintain an ongoing presence within State and Federal hazardous materials spills emergency response programs. Through routine participation in response programs we review and recommend modifications to various response actions, contingency plans, and spill drills affecting the CO River and tributaries. We have recognized a need to update existing Sub Area Contingency Plans under the National Contingency Plan. EPA has the lead for developing and updating Sub Area Contingency Plans; we have informed EPA of the need to update plans associated with the CO River and tributaries.

The State of Utah held a multi-agency workshop in Salt Lake City, Utah, to plan for future emergencies, including spills and responses, and promote better coordination among agencies during response activities. USFWS expressed concerns over timely incident notifications, specifically regarding events that may affect DOI trust resources. Since the workshop, spill notifications have been provided in a more timely fashion and special notices have been provided to USFWS during events that may particularly affect DOI trust resources.

II.C.1. Support actions to reduce or eliminate contaminant impacts of selenium in the Grand Valley (Ongoing)

The Grand Junction EC staff has remained involved with both the Gunnison Basin Selenium Task Force and Grand Valley Selenium Task Force.

II.D. Support actions to reduce or eliminate selenium impacts at Ashley Creek and Stewart Drain (Ongoing)