
Aquatic Ecology Symposium

Western Water Policy Review Advisory
Commission (1997)

2-1-1997

United States Forest Service

United States Forest Service

Follow this and additional works at: https://digitalrepository.unm.edu/law_service_westernwater_aes



Part of the [Natural Resources Law Commons](#), and the [Water Law Commons](#)

[University of New Mexico](#)

[UNM Digital Repository](#)

Recommended Citation

United States Forest Service. "United States Forest Service." (1997). https://digitalrepository.unm.edu/law_service_westernwater_aes/1

This Presentation is brought to you for free and open access by the Western Water Policy Review Advisory Commission (1997) at UNM Digital Repository. It has been accepted for inclusion in Aquatic Ecology Symposium by an authorized administrator of UNM Digital Repository. For more information, please contact amywinter@unm.edu, lsloane@salud.unm.edu, sarahrk@unm.edu.

Western Water Policy Review Commission Aquatic Ecosystems Forum

Proposed Questions:

1. Summarize and describe your agency's programs and budget capability that currently address the protection and restoration of aquatic ecosystems in the 19 western states, including habitat acquisition and management, wetlands and riparian systems, water and power management, water quality, endangered and threatened species, and land management programs.

Answer:

(Colorado River): Annual program expenditures have ranged from about \$2 million to \$13 million. Costs have included habitat development, habitat management, in-stream flow acquisition, non-native fish management, hatchery construction and operation, endangered fish stocking, research, public information and education and program management.

(See attached pie chart of Upper Colorado River Recovery Program expenditures to date.)

(Colorado/Kansas/Nebraska/Utah Ecosystem): Native aquatic resources are more commonly becoming species of special concern or actually being placed on the Endangered Species List. In the mountain areas of Region 6, starting in the north and going south, we have problems with bull trout, redband cutthroat trout, west slope cutthroat trout, Bonneville cutthroat trout, Colorado cutthroat trout, Lahannnton cutthroat trout, Rio Grande cutthroat trout, and others. In the prairies, we are concerned about the small prairie fishes such as sicklefin chub, sturgeon chub, Arkansas darter, Neosho madtom, Topeka shiner, Arkansas shiner, and others. All of these western aquatic resources are being stressed because of water management practices (dams, diversions), urbanization, water quality, competition with exotic fishes, and other land management practices altering their habitats.

The Fish and Wildlife Service has numerous programs and some limited budget capability to work on these aquatic resources. In the Federal Aid Program approximately \$56 million is being provided to State Fish and Game agencies in our 8-state region to deal with the sport fish species which are primarily the cutthroat trout up and down the Rockies. Hatchery stocks are being propagated as streams are being restored and native fishes are returned to some streams. The Fisheries Program also is supporting restoration of sensitive species. The Federal hatcheries also have raised captive stocks of native fishes for return to restored streams once habitats have been cleaned up, restored, and nonnative competitors removed. The Endangered Species Program is supporting the recovery of listed species, as well as candidate species, using many cooperative partners such as the Forest Service, the Bureau of Land Management, States, the National Park Service, and others. The Private Lands Program often focuses on restoration of other aquatic resources with agreements and/or leases with private landowners. There are many people working on the various sportfish species but there is much to do if we are to save and restore these native species.

In the prairies the aquatic species are very small and less glamorous but are becoming more and more in danger of being lost. Conversion of the prairies to agriculture with resulting impoundments, diversions, and in some cases complete dewatering of streams have caused the habitats for the prairie fishes to shrink greatly. The sturgeon chub and sicklefin chub in the Dakotas need protection under perhaps the Endangered Species Act. Further south the Topeka shiner, Neosho madtom, Arkansas shiner, and Arkansas darter are the barometer of the health of the aquatic resources and all are already listed or need help. There are very few Programs working on protection and recovery of these species except if listed under the Endangered Species Program.

(Platte River): The Service receives \$399,000 per year for staffing to provide protection and restoration of the Platte River ecosystem. The United States Geological Service is trying to get approval of several million dollars for research of the Platte, Mojave, and Greater Yellowstone Ecosystems over the next few years.

(Missouri): The Service currently has \$2.5 million in Land and Water Conservation Fund monies to acquire lands adjoining Boyer Chute National Wildlife Refuge in Nebraska.

2. Describe the extent of your agency's data base related to western rivers and aquatic ecosystems, where sufficient data is not available, and how this information is utilized and made available to others.

Answer:

(Colorado River): The Fish and Wildlife Service through its Grand Junction, Colo., office manages a centralized database on research findings on endangered Colorado River fish, including lists of all endangered fish that have been captured during research and all endangered fish that have been stocked. Also, through a standardized monitoring program, data is collected to monitor population trends of endangered Colorado River basin fish.

CO/KN/NE/UT Ecosystem: The data bases on the aquatic resources housed in our Ecological Services Field Office is often shared or combined with that of the State Fish and Game agencies, Natural Heritage Program, and many local universities. Information about the prairie aquatic species is lacking.

(Platte River): Region 6 has an extensive and comprehensive data base on the past and present hydrological characteristics of instream flows in the Platte River, South Platte River, and North Platte River. In addition, we, together with cooperators (such as Platte River Trust), have approximately 15 years of data on the characteristics and usage of aquatic and terrestrial habitats of federally listed species, fish, and migratory birds of the Platte River Valley. Much less data is available regarding the South Platte and North Platte Rivers.

All data possessed by the Service is available upon request to all the parties involved in water and wildlife management in the Platte River ecosystem.

Additional data is needed regarding the relationship between discharge in the Platte River and groundwater levels in grasslands adjacent to the river. Also, more information is needed regarding the effect of ice formation and movement in the river on channel shape and removal of vegetation in the channel.

3. Describe any new and innovative initiatives, policies or partnerships your agency has undertaken or is in the process of implementing related to the protection or restoration of aquatic ecosystems in the west.

Answer:

(Colorado River): The Service and state wildlife agencies in Colorado, Utah and Wyoming recently finalized a policy on stocking of nonnative fish species in the upper Colorado River basin. The purpose of the policy is to ensure that stocking of nonnative fish species does not jeopardize endangered fish.

The Upper Colorado River Recovery Program has developed an agreement clarifying how the Fish and Wildlife Service will apply section 7 of the Endangered Species Act to water development projects in the upper Colorado River Basin. (This section of the act requires Federal agencies to consult with the Service on actions that are likely to jeopardize the continued existence of endangered or threatened species or result in destruction or adverse modification of their critical habitat.) Under this agreement, as long as the program is making sufficient progress toward endangered fish recovery, the Service will issue favorable biological opinions on water depletion projects that deplete fewer than 1,500 acre-feet of water per year. Impacts associated with new water depletion projects are offset by Recovery Program accomplishments and by a one-time contribution made by the water project. Since 1988, this approach has allowed the Fish and Wildlife Service to issue favorable biological opinions on about 300 water projects in Colorado, Utah and Wyoming with a potential to use nearly 200,000 acre-feet of water.

Our region of the Service has begun drafting a policy for administering the Endangered Species Act on United States rivers. The policy is aimed at promoting effective, cooperative and consistent efforts to conserve fish, wildlife, and plants such that listing them under the ESA becomes unnecessary and to minimize social and economic impacts.

CO/KN/NE/UT Ecosystem: In November 1995, Colorado Governor Romer and Secretary of the Interior Bruce Babbitt signed a Memorandum of Agreement to define a better way to cooperate and collaborate on species at risk in Colorado. The gist of the MOA is to find voluntary, cooperative ways to protect and recover sensitive species in Colorado; to work together to resolve the many problems we face with protection and management of species at risk, both listed and those not yet listed. The Colorado Department of Natural Resources has assumed the lead for the effort with close coordination from the Fish and Wildlife Service. We have established an advisory committee comprised of people and agencies interested in species at risk, a coordinating committee made up of state and Federal agencies who can implement actions for species at risk and several ad hoc working groups comprised of people and agencies who have an interest in specific issues. Current ad hoc work groups include Preble's Meadow Jumping Mouse, Gunnison Sage Grouse, Colorado Cutthroat Trout, Riparian Habitats, Short Grass Prairie and Incentives and Assurances who are looking for ways to protect species and

habitats while minimizing regulatory burdens. Our primary goal is to find voluntary, cooperative, collaborative efforts to protect and recover species at risk and to reduce or even eliminate the regulatory burden so often associated with the Endangered Species Act.

We have used underwater obstructions to trap gravel for restoring gravel bars needed for habitat and spawning of the Neosho madtom, a small fish. The gravel bars were previously removed by sand and gravel operations. We worked with the U.S. Geological Service to identify gravel deposits on upland areas to provide aggregate which will reduce damage to streams by providing a substitute source for gravel. Stock tanks and water have been provided to landowners to reduce the use of direct stream diversions, which cause fish to be diverted from streams and lost in agricultural fields. Fencing riparian corridors to prevent grazing immediately adjacent to and in streams has allowed riparian vegetation to stabilize stream banks, causing shade which cools the water and reduces stream sedimentation. Placing stoplog structures in streams and treating the upstream segment helped to remove nonnative species so that native cutthroat trout can be reintroduced and no longer have to compete with nonnative competitors.

The Service's Partners for Wildlife program is participating as a partner a major wetlands protection, restoration, and creation program spearheaded by the Colorado Division of Wildlife (CDOW). The program proposes to use a Great Outdoors Colorado Legacy Grant (State lottery funds) to protect, enhance, restore and create wetland and riparian areas in Colorado. The Service is a partner in this CDOW endeavor with the Nature Conservancy, Ducks Unlimited and Colorado State Parks. Should the grant be awarded, several million dollars may be available to for wetland and riparian system projects. These funds would be leveraged to obtain additional funds, thereby expanding the program further.

(Platte River): During the past 13 years, inclusive, the Service has worked diligently to bring together all the water and environmental interests in the three Platte River Basin States of Colorado, Wyoming, and Nebraska to form a Platte River endangered species recovery implementation program. This has yet to be achieved.

(Missouri): The Service is in partnership with 10 local governments and the National Park Service for restoration of a 66-mile segment of the Missouri River. The partnership is called *Back-to-the-River* and was initiated by Senator Kerry (D-NE).

4. Describe any legislative, resource or institutional restraints or limitations that inhibit your agency's ability to do an adequate job of protecting aquatic ecosystems in the west.

Answer:

(Colorado River): A large part of the funding for the Upper Colorado River Recovery Program has come through the Bureau of Reclamation either in the form of power revenues derived from the operation of the Colorado River Storage Projects (CRSP), or more recently, from Federally appropriated funds for capital projects. While the cost of this overall Program is shared by all Program participants, the largest percentage of cost has been born by the Federal Government. About two years ago, Reclamation indicated they could not continue to fund the Program in the way that they had in the past and that alternative funding mechanisms and cost sharing arrangements were needed to keep this Program viable. As a result, the Program participants

began discussing how to provide more stable funding source for both the San Juan and the Upper Colorado River Basin Recovery Programs. We got to a point last winter where a Bill that authorized both of the Programs was drafted. It would provide an \$82 million cost ceiling for the Upper Basin Program through the year 2003, which is when the Program expires. For the San Juan Program, the cost ceiling was \$22 million until the year 2007, when the San Juan Program is set to expire. It specified a cost-sharing arrangement where the Federal Government would fund 50 percent of the costs, power revenues would be used to fund another 35 percent of cost of the Program, and the States would fund about 15 percent. However, this legislation was put on hold pending resolution of some issues that the water users have. Specifically, the water users wanted more firmer guarantees that water projects would receive favorable biological opinions before they agreed to back the legislation.

(Missouri River): The Missouri River is a multi-jurisdictional river that has become a focal point of controversy related to management of the system. Issues related to management of the mainstem reservoirs, recreational use, navigation flows, water rights, power production, natural resources and threatened and endangered species have all become areas of concern, conflicting much of the time, and there has been some litigation between competing interests. The Service is often restrained in its ability to protect the Missouri River aquatic system and it's recommendations to other agencies are often not implemented because of competing interests, laws governing operation of the system, and project purposes that do not recognize fish and wildlife as a priority.

(Platte River): State water laws are incapable of allocating a specific amount of stream flow in an upstream State for protection and restoration of aquatic habitats in a downstream State. Furthermore, allocation of water resources for instream flow purposes did not become a legally recognized beneficial use of water in most western States until relatively recently. Because of the recent establishment of instream flow statutes, most of the water has long since been allocated for out-of-stream uses, leaving streams severely dewatered with insufficient unallocated water available for even minimally viable management of instream fish and wildlife resources.

In addition, State laws in Nebraska do not address the pumping of groundwater. As part of the agreement involving the Platte, the Fish and Wildlife Service will ask Nebraska to change State laws so that this important concern will be addressed.

(Clean Water Act): Under the Natural Resource Damage Assessment provisions of CERCLA, the Secretary of the Interior, as a presidentially appointed trustee for a variety of natural resources, has the responsibility for the restoration of those natural resources injured by the release of hazardous substances. As an Interior resource management Bureau, the Service serves to implement those responsibilities through the investigation of natural resource injuries caused by hazardous substances, leading to remediation and restoration of those resources. The Service also has an active contaminants program which seeks to identify and rectify sources of contamination that injure or threaten resources for which the Service exercises trustee responsibilities. Two common problems often arise in getting either private entities or governmental agencies to undertake source control, remediation, or rehabilitation at problem sites for which they otherwise do not have responsibility or liability.

One problem arises when we seek to control a point source of pollution. An example would be to stop acid mine drainage into a receiving water body from the adit of an abandoned hard rock mine. Under Section 402 of the Clean Water Act, anyone undertaking action to modify conditions of this point source would require a NPDES (National Pollutant Discharge Elimination System) permit which would stipulate water quality standards which the permittee would now be required to achieve and maintain. We may have agreement with a party to undertake certain remedial or control measures which would substantially improve, but not necessarily achieve the standards stipulated for the receiving body of water. The responsible agencies may agree that the action is a substantial and worthwhile improvement, and that this would be a one-time action. However, under permit conditions, the permittee would have to meet the full State standard and would be responsible for its perpetual maintenance. This requirement frequently precludes such a deal. Meeting and maintaining this standard may drive the initial cost much higher and may then require ongoing maintenance.

We have several examples of this very problem in the upper Arkansas River drainage where we have a project to remediate pollution from mine and processing wastes and to restore injured natural resources. In 1957, the Bureau of Reclamation acquired water rights from the abandoned Leadville Mine Drainage Tunnel to augment water supplies. Because this was a substantial source of metals pollution to the Arkansas River, the Bureau eventually incurred permanent responsibility under Section 402 for treatment of the tunnel effluent to standards set for the Arkansas River. Thus, the original \$1 acquisition has turned into a long-term multi-million dollar liability on an annual basis. Now, the Bureau will not agree, nor will other agencies, agree to assist in the source control and cleanup of other polluting sites in the upper Basin. USGS has pulled out of a research site because of this problem.

“Good Samaritan” language has been introduced to allow for actions at such sites that agencies agree are worthwhile improvements, without incurring the current ongoing liability conferred by the 402 NPDES permitting process.

A frequently concurrent problem is that of incurring liability under CERCLA or RCRA. Where hazardous substances are involved, agencies and private entities balk at undertaking actions where they currently have no liability, for fear of incurring liability as a generator or potentially responsible party. If that happens, they may be liable for cleanup of contamination on and originating from that site, and for injuries to natural resources caused by those substances. This could occur at the type of site discussed above or at non-point sites that do not require an NPDES permit. Again, “good Samaritan” type provisions are necessary to encourage positive actions which substantially improve conditions and which responsible agencies agree is beneficial, without incurring the liability which now may legally result.

Many sites, drainages, and basins are badly contaminated and injured. We do not have the funding available to us to be able to identify such sites, assess the problems, and to develop and implement appropriate mechanisms for rectifying problems. In Colorado, we have undertaken a single NRDA action. But the complications and procedural requirements of NRDA make that a long-term action that must follow proscribed processes. This limits creativity for developing

solutions and limits us from working in other drainages also with severe resource injuries. We need program funds which, in addition to the NRDA option, would provide us the resources and the flexibility to pursue a wide range of options for resolving contamination problems.

Should the Service be able to acquire appropriated funds to support expansion of a 'NRDA' or restoration type program to one which is more encompassing and of greater flexibility, under what authorities do we operate? NRDA (CERCLA) is our primary avenue right now. Additional legislation may be needed.

As noted above, the current Interior NRDA regulations are burdensome to follow, ensuring commitment of substantial time and money before ever reaching the point of restoration. We believe the NRDA concept is valuable to restoring natural resources, but that the current complexity, rigidity, and burden of proof on the Trustee is too great to make the program workable. We strongly encourage an overall of the regulations to substantially lower the burden of proof on the Trustee, and greatly increase the flexibility of the Trustee in arriving at needed remediation and restoration, and the ability to ensure that responsible parties fairly contribute to those solutions.

This is true for CERCLA as a whole. CERCLA is too attorney driven and money driven, and far too cumbersome to allow for common sense and practical solutions to problems associated with hazardous substances.

We have neither the funding nor the authorities to allow us to operate in an ecosystem context. Authorities conferred under the NRDA provisions of CERCLA may give us the greatest ability to correct problems on a systems basis. However, the complications of using the NRDA process, as well as its specific limitation to resource injuries caused by hazardous substances, are a hindrance to looking at and rectifying broader problems on a systems basis. Funding and broader authority are both needed tools.

Funding overall is substantially short of our needs to fulfill our resource obligations, as well as opportunities.

Nationwide permits, as well as individual 404 permits, and the way in which they are administered are a serious deterrent to our ability to protect the aquatic ecosystem. Significant response on this issue has already been generated by the Service's Mountain-Prairie Region. However, several particularly troublesome points include:

Nationwide permits should only be issued when environmental effects are minimal. However, the Corps of Engineers (COE) includes so many projects under "nationwides" because they wish to reduce administrative burdens. When mitigation is required under a nationwide, mitigation is often specified only in general terms and is poorly monitored and enforced. Further, there is no assurance of success. Minimal effects should be determined *prior* to authorization and before taking into account mitigation proposed by the applicant. Further, too often the COE evaluates the *area* of impact as the physical footprint of the action, rather than as the total area of effect caused by the project - which is how it should be viewed. An example would be if Two Forks would be authorized under NWP26 by looking only at the footprint of the dam! This both brings

many projects under the acreage requirements for nationwides that should be permitted under individual permits and minimizes required mitigation. The results are cumulative losses of wetlands under the nationwide program.

Under nationwides, the permitting system under which most projects fall, mitigation sequencing which specifies first avoidance then minimization of impacts does not have to be followed. In addition, NWP and individual permits are often not required to meet the water dependency provision of EPA's 404(b)(1) guidelines. Therefore, many projects are sited in wetlands, floodplains, and riparian zones which do not require such siting and which have alternatives available that could substantively fulfill the purpose of the project.

We have no statutory authority under the 404 permitting process. We cannot exercise veto authority or otherwise modify permit or mitigation stipulations, even when we believe significant environmental effects will result. We only have the ability to comment, unless a T&E species is involved. Even when T&E species are involved, there is inadequate protection for the resources because many NWP's require no notification to the Service leaving the responsibility to uninformed applicants. Most of the new NWP's which were recently issued are significantly improved and the Service will try to improve them further through regional conditions.

CO/KN/NE/UT Ecosystem: There is often a mistrust of the Federal Government in the West and attempts to restore endangered fishes or candidates cause great concern to landowners and in some cases States. The concerns are that water rights or land might be taken to protect aquatic resources. Often streams which are very suitable for restoration of the native fishes are not used because of this concern. Even though we have the ability to provide Conservation Easements, Safe Harbor Agreements, and other methods to deal with legal issues they are not accepted by many landowners.

(Federal Power Act): Relicensing of hydropower projects has the potential to provide significant opportunities to restore fish and wildlife populations. Unfortunately, the Federal Energy Regulatory Commission has unnecessarily delayed issuance of new licenses on several major projects (e.g. Kerr Dam) for many years.

5. Describe any cooperative efforts your agency has undertaken in recent years with other federal, state or local entities to address environmental degradation of aquatic ecosystems.

Answer:

(Colorado River): The Bureau of Reclamation, with the cooperation of the multi-agency Upper Colorado River Recovery Program, recently purchased a 153-acre wetland on the Colorado River near Grand Junction. This key parcel of land has now been preserved for endangered fish and other types of wildlife. We are currently exploring land acquisition opportunities for the Recovery Program on the Green and Colorado Rivers.

The Service and Bureau of Reclamation are jointly conducting studies on the contaminant selenium and its effects on endangered Colorado River fish.

The Service and Utah Division of Wildlife Resources are raising endangered fish in hatcheries and stocking many of them in the wild each year.

The Bureau of Reclamation constructed a 350-foot fish ladder at the Redlands Diversion Dam, allowing endangered fish to now access 50 more miles of their historic range, including known spawning areas.

(Missouri River): The Fish and Wildlife Service is cooperating with the Missouri River Natural Resources Committee (representatives of seven State game and fish agencies adjacent to the Missouri River), Biological Resources Division of the USGS and Corps of Engineers to develop a comprehensive biological monitoring plan for the Missouri River System. This monitoring effort will be designed to obtain data on the status of fish and wildlife and their habitats and the influence of system operations on these important natural resources. The end product will be used to pursue funding for implementation of the Missouri River Monitoring Plan through Congress. The Service entered into a MOA with the Papio-Missouri River Natural Resource District to assume management of 2000 acres along the river at Boyer Chute.

(Platte River): In June 1994, the Governors of Colorado, Nebraska, and Wyoming along with the Secretary of the Interior, signed a Memorandum of Agreement (MOA) for Central Platte River Basin Endangered Species Recovery Implementation Program. The purpose of the MOA is to initiate the development of a mutually acceptable Program that would help conserve and recover Federally listed species associated with the Basin in Nebraska; help protect designated critical habitat for such species; and help prevent the need to list more Basin associated species pursuant to the Act.

We have also developed a biological opinion to accommodate depletions of 25 acre feet or less in the Platte River. Through this biological opinion, money has been provided to the National Fish and Wildlife Foundation for each depletion. Some of this money has been used to acquire 442 acres of habitat important to the endangered birds and migratory waterfowl.

CO/KN/NE/UT Ecosystem: State fish and game agencies are most frequently our partners in restoring aquatic resources. However, the Bureau of Reclamation is reoperating Federal reservoirs to help restore and create hydrological conditions to protect and recover native fishes. The Forest Service is stepping back timber harvest from riparian areas to protect streams from siltation and direct damage from logging. Native American Tribes are working cooperatively with the Service to restore streams to make them suitable for native fishes. Power companies have adjusted their hydropower production to more closely simulate the streams and rivers natural hydrograph to recover native fishes. State water resource and local irrigation districts have adjusted their water withdrawals to help return natural hydrology to streams and rivers in the west for recovery or restoration of aquatic species.

(Montana/Wyoming Ecosystem): In Montana, our Partners for Wildlife Program is working with agency and private partners to restore stream habitat for bull trout.

6. Describe, if applicable, any programs administered by your agency that provide funding or other resources to state and local agencies or organizations to address aquatic ecosystem problems.

Answer:

(Colorado River): Our region of the Service contributes about \$200,000 to state wildlife agencies in Colorado and Utah to implement section 6 of the Endangered Species Act. The two states use this money to monitor endangered fish population trends and to develop instream flow recommendations for endangered fish.

Our region's Federal Aid program provides funding to the state wildlife agencies in Colorado and Utah to provide aquatic education. Expected results of these programs include citizens who have increased respect for water resources, clean-up of identified streams and lake shores, responsible fishing, public education about fish hatchery programs, and collaborative relationships with citizens, private industry, government entities, non-profit organizations, and public and private schools.

(Platte River): The Bureau of Reclamation budget for this purpose is \$2.5 million; the Service funds \$399,000 for FWS staff.

CO/KN/NE/UT Ecosystem: As stated earlier in Question 1, there are a number of programs in the Service which provide the opportunity for funding to State and local groups to protect and restore aquatic resources. Probably the biggest challenge is that the dollars are not nearly as big as the problem.

7. What, if any, comments or recommendations can you provide concerning the proper roles of your agency in western aquatic ecosystems over the next 20 years?

Answer:

(Colorado River): The Fish and Wildlife Service should continue to have a leadership role in conservation of endangered fish, especially with species whose range extends across several states. Also, the Service should facilitate state efforts to prevent listing of native species in decline.

(Platte River): The effectiveness of the Service would be greatly enhanced if western water law were amended to require a showing of no significant adverse effect prior to any new allocations of water for out-of-stream uses. Also, in the Platte River Basin the extensive and large-scale water storage and regulation activities of the U.S. Bureau of Reclamation and U.S. Army Corps of Engineers are not in compliance with the Endangered Species Act; the Platte River ecosystem potentially could benefit considerably by actions which might be necessary and appropriate for these federal water agencies to meet the same standard of compliance with federal law as private and municipal water users.

CO/KN/NE/UT Ecosystem: Our agency has begun to focus more emphasis, in cooperation with our State and Federal partners on candidate species before the Endangered Species Act is needed. By working on species earlier, there are usually larger populations to work with, the

