

Irrigation and ESA-Success in Partnerships

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Abstract

As water demand increases and availability decreases, the potential for conflict between water user groups escalates. Compounding the potential conflicts are regulatory issues associated with the Endangered Species Act (ESA). Nationwide; fish, wildlife and plants are being added to the ESA list at a rate much higher than they are being removed from it. Irrigators and agriculture producers are often assigned blame for species decline end up bearing a substantial amount of the burden for their recovery.

In many cases the blame for declines and burden of recovery are scientifically unjustified. Still, irrigators and producers are easy targets for three main reasons: 1) the scale of infrastructure and landscape are highly visible. 2) In most cases they don't have any data to refute accusations even if the accusations are without merit. 3) Irrigators and agriculture producers have done a poor job of telling their story so their operations are poorly understood.

There are success stories where agriculture interests are being accommodated and the blow lessened through key partnerships. Through those partnerships come resources to conduct studies, establish support from regulatory agencies and develop mutually beneficial solutions. Common to the partnership success stories navigating ESA issues is an understanding that nobody wants to see species go extinct and nobody wants to go hungry.

Introduction

Throughout the United States there are approximately 163 fish species/populations listed on the Endangered Species Act (ESA), 35 amphibians and over 100 aquatic invertebrates, all of which depend on the same water resources that agriculture production relies on. The total number of ESA listed species is much greater when other water dependent ESA listed species, such as birds and plants, are included. Associated with many of the ESA listings are critical habitat designations that often span broad geographic areas and even include areas where the particular species currently does not exist or have access to. Further, in some cases, recovery plans are linked to poorly defined holistic ecosystem function and linkages to non-ESA listed species. The number of species, geographic areas represented and agencies responsible for their management make for complex regulatory environment that can be difficult and frustrating to navigate through.

ESA listed species recovery is ultimately the responsibility of the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). However, those federal agencies often rely on states and tribes for support and management. Collectively, those agencies are under constant litigious fire

from entities that profit from lawsuits, which forces management agencies to dedicate more resources and effort to lawsuits than actual problem solving and work toward recovery. Caught in the crossfire, with very little decision making ability or input, are landowners and agriculture interests. Ironically, habitat necessary for ESA species recovery is largely on land owned by the people excluded most and who could most influence recovery. Given the legal responsibility of federal and state agencies to manage long-term sustainability of species, the enormous amount of lawsuits filed by environmental pressure groups and the relative lack of landowner/agricultural involvement in decision making begs the question: “is ESA really about species recovery?”

Assuming lawsuits are, in fact, intended to promote species recovery, then shouldn't science provide answers that guide recovery solutions? By law, ESA decisions must be based on the best science available, but this requirement is often criticized due to lack of rigor. Still, if that science is the best available, even if it is considered imperfect or incomplete, it still may be used. This conflict is complicated by the resources and time required to acquire extensive data, particularly for lesser-known species that have little or no economic value.

In general, “sound science” is held up as desirable on all sides of ESA debates. In the most basic definition, science is a way of examining phenomena to produce explanations of the “why” and “how” of these phenomena (National Academy of Sciences, 1999). Therefore, scientific knowledge is dynamic and changes as new information becomes available. Moreover, scientific conclusions are dependent on the specific question being asked, experimental methods, assumptions made and interpretation of results, all of which could be influenced by personal values and policy positions of their employer. Exacerbating the potential conflicts is the indistinct boundary between science and policy; where science is generally based on probability and policy-makers want science to provide certainty for complex decisions (Mills, 2000).

While several bills have been introduced to address ESA reform over the last decade (Corn et al. 2013), it is clear that legislation is not going to solve ESA conflicts anytime soon. Similarly, legal actions are time consuming, costly and have provided very little relief to those subjected to ESA regulation and conflict. Further, landowners and agriculture producers typically don't have the time or financial resources necessary to fully engage in ESA processes and decisions that directly affect them. However, partnerships between diverse interest groups can provide avenues for participating in decision-making processes and, in many cases, can provide expertise and financial resources that result in mutually beneficial solutions.

Partnerships

Successful partnerships are founded on similar interests and finding mutually beneficial solutions based on those interests. Regulatory/management agencies, non-profit interest groups and non-governmental organizations are becoming increasingly aware that positive relationships with landowners and producers are much more successful in addressing species recovery than a punitive approach. Partnerships allow management actions that achieve ecological resilience where multiple objectives are balanced by a single resilience strategy (Paukert and Lynch, 2016)

As it applies to this topic, one common interest landowners, agriculture producers, water users and ESA management agencies share is the availability of water. Relative to water; stream, wetland and riparian habitats provide the habitats necessary for ESA species recovery. Landowner and producer interests are associated with livelihoods and economics. However, most landowners have a strong sense of stewardship and sense of obligation to conserve the environment around them.

Success Stories

1. Yakima Basin Integrated Plan, Washington

The Yakima River Basin spans 6,100 square miles in central Washington State. Demand for irrigating over 464,000 acres requires 2.4 million acre-feet (AF) of water. Additionally, the basin supports 48 species of fish, including two ESA listed species. Bureau of Reclamation reservoirs have the capacity to store approximately 1 million AF and the balance has historically been stored in the Cascade Mountains as snowpack. However, drought conditions have reduced snowpack storage and resulting water disputes have historically been resolved through lengthy and costly lawsuits, which prevented basin stakeholders from deciding on a comprehensive plan for water development and uses.

The Yakima Integrated Plan was developed by traditional opponents who came together to determine an alternative plan for the Basin's water needs. The solutions include fish habitat restoration, increasing the stability of stream flows and ensuring the reliability of agricultural irrigation and municipal water supply. The plan was developed through a collaborative public process where stakeholders weighed their needs versus wants and came to understand the views of their traditional opposition then negotiated to reach a consensus.

2. John Day River Watershed Restoration Strategy, Oregon

The John Day River is one of the most critical watersheds for fisheries in the Columbia River Basin. The Confederated Tribes of the Warm Springs Reservation identified the need to clearly select and prioritize restoration projects based on habitat limiting factors and targeted restoration actions through a transparent process with basin stakeholders. Stakeholders who participated in strategy development process included state and federal agencies, NGO's, private interest groups and private landowners. The strategy outlined several objectives, which included recovery of culturally significant fish species (including two ESA listed species) and incorporation of stakeholder priorities to ensure benefits were mutually beneficial for basin landowners. The key to this strategic plan's success was working with stakeholders to develop specific project prioritization criteria that included both agricultural needs as well as fish needs. Landowners and stakeholders benefit by being able to access fish restoration funding to improve their operations and infrastructure and the Tribes benefit by restoring critical habitat on private lands.

3. Birch Creek Watershed Action Plan, Oregon

Birch Creek is a tributary to the Umatilla River in northeast Oregon. Approximately 87 percent of the watershed is privately owned and largely managed for agriculture production. The watershed is also home to ESA listed summer steelhead, which are the last remaining native anadromous salmonid in the basin. Over the last several decades, landowners have been plagued with sediment deposition, streambank erosion and lacking water availability that impact their agriculture operations. Those same conditions also plague habitat conditions for the steelhead population.

The Confederated Tribes of the Umatilla Indian Reservation and partnering agencies developed a collaborative approach to incorporate ecological and fisheries recovery goals with land management and use. Collaboration began at the plan's outset and the primary goal was to build community trust and create strong and lasting partnerships to address complex natural resource issues. In a community that historically was adversarial on water related issues, this collaborative approach was so successful that it garnered support from much of the community to the extent that field study crews were granted access to over 60 miles of streams on private land throughout the watershed. Collaborators in the plan development included state and federal management agencies, NGO's, a municipal government, private non-profit partners and individual landowners. Plan solutions incorporate landowner needs as well as fish needs. Through the plan development, relationships were strengthened through development of mutually beneficial solutions.

Conclusion

Aside from the few success stories summarized above, there are numerous other examples where partnerships have led to stronger relationships, better understanding and sustainable solutions. Resource management agencies should be encouraged by the success of these partnerships in pursuit of listed species recovery and landowners should be encouraged that ESA issues can be addressed outside of court rooms. Establishing partnerships proactively will continue to generate momentum through collaboration and mutually beneficial solutions. It wasn't that long ago that healthy ecosystems and agriculture production coexisted. Healthy partnerships are an effective way to work toward making that a reality again.

Literature cited

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