

# Ecological Restoration Workshop

## *Summary of Presentations*



13 MAY 2004

Jordan River Natural Areas Forum

Compiled by Tiffin Brough



The Presentations summarized in this collection were made at The Jordan River Ecological Restoration Workshop on May 13<sup>th</sup> 2004 at the Day-Riverside Branch of the Salt Lake City Public Library. The Workshop was an educational, information-sharing event hosted by members of the Jordan River Natural Area Forum – an organizational body formed of municipal, non-profit and community partners concerned with coordinating the preservation and restoration of our river habitat in a progressively urban area. Presentations made ranged from education about riparian ecology and restoration management, to progress reports on current restoration efforts. Attendees to the workshop represented over twenty-five organizations involved with restoration work along the Jordan River.





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## The Sacred River

By Emily Hart

The Jordan River flows from Utah Lake through the Salt Lake Valley into the Great Salt Lake. I am floating down the river in a canoe. There are ducks and geese, muskrats and beaver. There are willows, reeds and rushes. In the spring, there are warblers and chickadees.

People leave their beer cans, shopping carts, soda cans, old mattresses, whisky bottles, and the remains of soggy cardboard boxes on its banks. They paint gang graffiti on the bridges. Every day another displays his war cry on the concrete. Every day we paint over it and hope they won't come back. I see cigarette cartons, thrown out furniture, rusty car parts, milk cartons and plastic wrap in the water. And there is more trash I can't even recognize, faceless garbage floating aimlessly like lost people with no connections and no direction. The Jordan's waters carry poisons, reminders of progress and industry. It is a strange combination of life and poison, of society's waste and the survivors of its abuses.

I was born and raised in the Salt Lake Valley. My family enjoyed the mountains and the canyon streams. We camped and hiked in Southern Utah's canyon country. I spent much of my time out of doors, but I do not think I knew anything about the river running through the valley I called my home except that it smelled bad and was filled with sewage. The Jordan River was a dirty river, no one cared about it, no one I know went there.

I started spending time on the Jordan River when I was planting trees along its banks with TreeUtah for a service learning class at the University of Utah. I remember being surprised when I discovered how peaceful it is there. It was then that I learned of its ecological values, and learned just how polluted it really is. I was also then that I learned to love this place.

I know people who know this place is sacred. They listen for rare ducks, they watch muskrats slink just under the surface of the water that leave v-shaped wakes in the slow current. They are stewards for the river. They fight for its protection. They work for its clean up, its survival, its recovery. But most people I know cross the bridges and plug their noses. They turn their backs from the dirty Jordan River.

As we come around a bend in the river, the Wasatch Mountains come into full view. They shoot straight up from among the willows on the banks of the river. It is warm for a February day in the valley, but the mountains are painted white, rising stark and dry from the mud and grassy banks. The landscape consumes me. I see pass the trash. I see the naked winter trees and an enormous valley surrounded by great mountains. A river winds its way through the valley, past street names and under bridges, a silent witness to our stories.

In *A Sand County Almanac*, Aldo Leopold said that people's ability to perceive quality in Nature begins with the pretty. It evolves from the different stages of beautiful to values beyond the aesthetic. I am reminded of the deeper values by the beauty of the landscape and my mind wanders to these deeper realms of appreciation. Beyond beauty, our appreciation for this sacred place grows with the slow unraveling of earthly history.

Utah Lake, the Jordan River, and the Great Salt Lake are the remains of the Pleistocene Lake Bonneville. When the glaciers descended from the north, crushing valleys and carving mountain canyons, cooler temperatures slowed down evaporation. Sea levels dropped as its waters were occupied elsewhere, and rivers swelled to make lakes. The shoreline of this enormous pluvial lake is visible. The river is what was once a lakebed.

The water rose for centuries and finally broke through at Red Rock Pass in southern Idaho, carving its way to the Pacific. Over the next few thousand years, the lake gradually drained itself, and the water completed its journey to the ocean. And so, by eleven thousand years ago, Bonneville stood close to the level of today's Great Salt Lake. To the south lay Utah Lake, and connecting the two was a river, in some places meandering slowly through thick willow and grasses, in others racing through rocks and rapids.

So this river lives and has its being not in the narrow present, but in the wider spans of earthly time. The splendence of its landscape grows with knowledge of its past. The water that flows northward through the bottomlands of this great valley marks the passing of time.

As the lake receded and left the river, it left marshes and streamside vegetation. To these riverbanks came the herons, the ducks, the geese and the songbirds. And as the age of ice came to an end, and with the formation of the surrounding desert, the river's banks summoned the birds.

River corridors like the Jordan are an invaluable resource for wildlife in the Great Basin. In *Sagebrush Ocean*, Steven Trimble explains the rarity of the water in an otherwise dry Great Basin desert:

Great Basin rivers flow through bottomlands lush with grasses. Forests mark their course—broad-leaved trees free to extravagantly waste water. Great Blue Herons lift away from streams and banks and flap deliberately downstream. No place in the Great Basin feels more lush...I heard a single note in this music of life, struck by a cottonwood tree in winter...

This music that is life surrounds the Jordan River. The souls of the creatures that indulge themselves on its waters are also the soul of the river. The river is life. It is sacred.

When Mormon pioneers entered the valley of the Great Salt Lake in 1847, they, too, sensed that the river was sacred. They realized that their very survival depended on the streams and rivers that ran through the land. Not only did their livelihood depend on these waters, they were special in another way. The similarity of the drainage system with the Holy Land, where the Jordan River drains from the Sea of Galilee to the Dead Sea inspired the pioneers to name the river the *Western Jordan*. This place they had found was, indeed, Zion. The very geography duplicated their Holy Land.

Despite its sacred name, the pioneers seemed only to value the river for irrigating the otherwise "barren wasteland." This industrious people were going to "make the desert bloom like a rose," yet they were blind

to the fact that the desert had its own roses. They look past the herons and the songbirds. They disregarded the Chokecherry and the Peach-leaf willow. They built dams and canals to divert its water from its natural course. The canals were first built in the 1880's to carry granite stone from quarries in Big Cottonwood Canyon to build the Mormon Temple. They had a new sacred place. Their notions of the sacred turned indoors, and they abandoned their River Jordan.

It was used to carry sewage downstream to the Great Salt Lake. Wastewater from mills and slaughterhouses poured into the Jordan. Wetlands were filled to produce crops, and the winding river was straightened to reduce flooding. By the 1950's, its waters were a health hazard to the people living on its shores. By dredging, filling, channeling, and polluting, we have stolen the river's soul, stolen its sacredness. We have robbed ourselves of our health. We have robbed Nature of its health, and so its soul.

We have learned that we cannot separate our well being from the well being of our surroundings. Somewhere in our journey through time and place we have lost this connection. If the river is to become healthy again, we must give it back its namesake. The soul is our stories. Aldo Leopold said our appreciation of Nature begins with the pretty. But by poisoning its waters, we have stolen part of the Jordan's pretty. We must therefore turn to the deeper appreciation to which Leopold refers to restore health to the river. Only a renewed commitment to this place, a recognition of its natural and social values, will aid us in bringing soul back to the River Jordan.

This essay first appeared in *Catalyst*, April 1996: 10, reprinted with permission from the author.

## *Riparian Restoration for the Birds*

Frank Howe, Avian Ecologist, US Fish and Wildlife Service

How important is riparian habitat? Half of the birds in the southwestern United States are totally dependant on riparian habitat for their existence. Between 80 to 95% of Utah's original riparian habitat has been altered and lost. Combine this with the loss of 40% of our wetlands, and a similar national picture, and there is a serious threat to western bird populations.

Riparian areas are the river corridors, which support a diversity of plants and animals. In fact, riparian habitats support the greatest diversity of any other habitat type in the region – especially for birds. Riparian zones supply birds with the essentials of food, water and cover, all in one compact area. A wide variety of species use riparian habitat from most bird groups, including herons, ducks, shorebirds, hawks, and perching birds. All of life's prerequisites in such a concentrated area attract disproportionate numbers of birds to riparian habitats. Nearly 75% of all species in Utah make use of riparian habitats, which cover less than 1% of the land in Utah.

In riparian areas birds find cover for nesting, foraging, and escape. Abundant food sources are present, as well as free flowing water that some birds require. River corridors are also important in migration as flyways, which provide resting places with food, shelter, and serve to orient migrating birds. A healthy riparian area supports a wide variety of plants. These plants in turn provide a wide variety of foods for birds in fruits, seeds, leafy vegetation, flowers, and as substrates for insects. (Most birds are insectivorous during breeding season.) A wide variety of food means the area attracts a wide variety of birds (and other animals) resulting in the most biologically diverse habitat in the Great Basin.

The basic ecology of riparian habitat is centered on functions of the river. Like most naturally healthy ecosystems, riparian habitat is in a state of dynamic equilibrium. Short term dynamism in changes wrought by the river cycles results in an overall stability of the system in a long-term perspective of the habitat. The river serves several functions in creating riparian zones. Primarily, a properly functioning river floods periodically, typically every 1-3 years. Flooding scours the substrate, deposits sediment, plants seeds, encourages growth, and replenishes the water table. It also establishes a meandering channel through the floodplain, which helps move sediments around within the plain, as well as slows the flow of water. A properly functioning river with meanders will have a vertically stable riverbed, without excessive bank erosion, or downcutting. Downcutting leads to lowering water tables, and dries out vegetation.

A healthy riparian area supports a variety of plants with diverse age structure. The area will be composed of "successional" plant stages, where each stage represents plants of different ages. Riparian forests also have vertical layers, where different birds nest and forage in different layers. The layers consist of a ground layer of grasses and herbaceous perennials, a subcanopy of woody shrubs and shorter trees, and the canopy of taller mature trees. Most birds use the canopy and subcanopy layers.

Restoring a properly functioning condition to a riparian zone is the key to successful restoration. To restore riparian habitats to a properly functioning condition, several factors must be considered. The first step in bringing about the restoration of a degraded riparian zone must involve dealing directly with the source of the impact to prevent any further degradation and insure success of restoration. Re-

moving the impact is the first step to restoring function.

Many current human activities degrade riparian habitats. Common impacts include: urban encroachment; agricultural encroachment; water development; overgrazing; road and trail development; timber harvest; pollution; invasion of exotic plants; recreation. These impacts lead to fragmentation of habitat, separation of riparian areas from adjacent uplands, narrowing of the riparian corridor, and lack of natural regeneration. The type and combination of impacts affecting the area considered for restoration determines the management strategy implemented. In some cases, simply removing the source of impact is sufficient, and the area will recover. In most cases, some active restoration is required. Additional actions may need to be implemented, like, fencing, proscribed burns, modified forestry practices or mining activities, beaver reintroduction, bank stabilization, recreational planning, managed grazing strategies, and upland management with lower riparian zones in mind. In systems like the Jordan River, where restoring natural functions is impractical, an active, ongoing management strategy is required to mimic the natural process of a functioning riparian corridor.

Usually active restoration involves plantings, but often requires other efforts such as grazing management, stream bank stabilization structures, and upland management. Planting restoration should provide the right food and cover for the birds to be protected or enticed. It is better to plant native species, though seriously altered areas may no longer be able to support the original vegetation. Plant trees and shrubs to restore an area, and the birds will finish the rest of the job on their own. Plants can also stabilize banks naturally. Planting alone, however, will not be sufficient without removing the threat and restoring the function to the area.

For increased bird diversity in restoring riparian areas, restoration managers should begin by selecting plants to provide a variety of vertical structure. The most emphasis should be placed on selecting the appropriate tree and shrub species. Canopy and subcanopy layers are the most important to a wide variety of birds, though these are the layers which are most often absent in Utah riparian zones. In many situations, suitable ground layer plants will become established on their own. In situations where damage is extensive, the seed base is depauperate, or undesirable grasses and forbs dominate, more effort may need to be placed on reestablishing the ground layer.

After adding vertical layers to the habitat, diversity within the plant community should be addressed. Widening of the riparian zone will also increase bird diversity. Connecting multiple riparian areas together, and eliminating isolated habitat pockets, contributes to the health of the system and bird diversity. Also connecting riparian areas to upland habitats contributes to abundance, in accord with the larger system.

## *Involving Community in Restoration Work*

Heather Scheel, Utah Society for Environmental Education

**Remind  
community about  
the place they  
live.**

In order for restoration work to have long-term success, it is necessary to get local community involved in on-the-ground efforts to create a sense of stewardship for the project. The Utah Society for Environmental Education works to build capacity in Utah's environmental education community by organizing and supporting regional environmental education programs and building leadership throughout the state.

Part of their work includes community based efforts in understanding the environment. USEE has partnered in local community outreach and education efforts in the past, and as a community umbrella organization can provide assistance in connecting communities and agencies in restoration work.

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## *Urban Forestry Management Issues*

Bill Rutherford, Salt Lake City Urban Forester

The Urban Forestry Department cares for public trees, including those trees along the Jordan River corridor. Public trees along the river are subject to liability considerations and aesthetic properties in their pruning and maintenance by the city. Those interested in keeping the river area as natural as possible have these issues to consider.

Questions about the best balance between the natural and maintained approaches to tree care along the river arise anywhere the city has jurisdiction along the river. These questions about river tree care are also compounded by city budget constraints.



*Available Plant Material for River Restoration*  
Edie Trimmer, Lone Peak Nursery

The Lone Peak Nursery is one of Utah's native plant suppliers, and has grown seedlings for Northern Utah conservation projects since 1998. Their historical focus has been growing shrubs and trees, and now the nursery is currently beginning to grow grasses and herbaceous perennials, too.

A new greenhouse space has been created and the question before the nursery is: what plants do we grow with this space? Input from active and planned restoration work is needed to help meet demands.

A proposal for offering "plant suites" to preservationists was given. Response seemed positive from restoration advocates, and may be offered soon. Contact the nursery for suggested plant suites per ecological region.

*What plants do  
you need for  
restoration?*

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*USDA-NRCS Wildlife Habitat Incentives Program*  
Norm Evanstad, USDA Natural Resources Conservation Service

The US Department of Agriculture offers conservation assistance for private landowners. These are grants for restoration work through the Wildlife Habitat Incentives Program. Several grants have been awarded in Utah covering a variety of habitats and approaches. The Swaner Nature Preserve was the first permanent land easement through this program, which has since become a Columbia Spotted Frog re-introduction research study. Other participants are located along the Great Salt Lake, where duck clubs have applied for assistance to mimic seasonal floods. Murray Nature Center received funding for Russian Olive removal along the river.

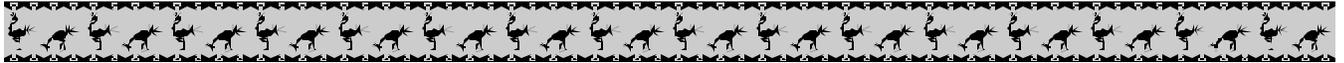
All WHIP applications are ranked to a pre-set points system. Sage grouse habitat is a priority, and would receive more points. The benefits of a grant include both financial and technical assistance to improve private land for wildlife. Details and applications can be found on the internet, or by contacting the Natural Resources Conservation Service.

*Need help protecting sensitive wildlife habitats?*

## *Army Corps of Engineers Projects* Scott Stoddard, USACE

The U.S. Army Corps of Engineers has three projects are underway in the Salt Lake valley. Two are on the Jordan and the other will be restoring a portion of City Creek. The Corps implements riparian and wetland restorations under the Aquatic Ecosystem Restoration Authority (sec.206) of the Water Development Resources Act of 1996.

Each project has a sponsoring agency which must provide at least 35% of funding for these projects. The Corps can partner with any non-federal agency that would want to become a sponsoring partner, though in these cases they are: Salt Lake City; West Jordan City; Salt Lake County (see the next page for details on the county restoration series). As of the conference, the projects other than with the county were in the planning stages only, and on hold until further federal funding comes through.



### Websites

for further information and resources about the topics & projects summarized here:

EPA Clean Water Act  
<http://www.epa.gov/water/>

Great Salt Lake Audubon Society  
<http://www.greatsaltlakeaudubon.org/>

IHI Environmental  
<http://www.ihl-env.com/>

Jordan River Natural Areas Forum  
<http://www.planning.utah.gov/jrnaf.htm>

Lone Peak Nursery  
<http://www.ffsl.utah.gov/lonepeak/nursery/LPNursery.htm>

Salt Lake City Urban Forestry  
<http://www.slcgov.com/publicservices/forestry>

Salt Lake County Engineering Division  
<http://www.pweng.slco.org/flood/html/jrp.html>

TreeUtah  
[http://www.treeutah.org/eco\\_restoration.htm](http://www.treeutah.org/eco_restoration.htm)

US Army Corps of Engineers  
<http://www.usace.army.mil/>

USDA Natural Resources Conservation Service, Wildlife Habitat Incentive Program  
<http://www.nrcs.usda.gov/programs/whip/>

Utah Federation for Youth Peace Trees  
<http://www.ufyi.org/pt-index.htm>

Utah Society for Environmental Education  
<http://www.usee.org>



## *Salt Lake County Restoration Projects* Steve Jensen, SL County

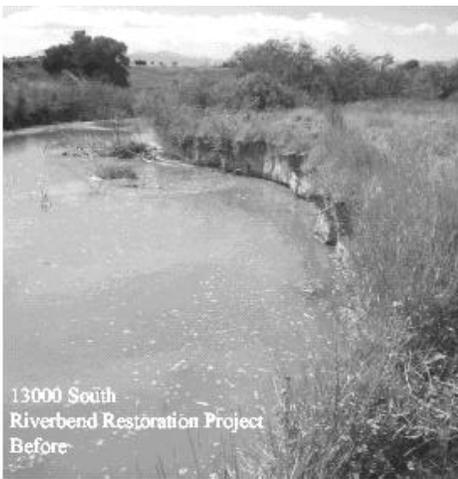
# Nonpoint source pollution control projects

The Salt Lake County Engineering Division received EPA funding in 1994 for restoring and stabilizing areas of the Jordan River channel. With the aid of a lobbyist, the funds were secured through Section 319 of the Clean Water Act, which appropriates money to the states for projects that address non-point source pollution. The non-point source management plan for the state of Utah incorporates the effects of hydrologic modifications, thus including the modified river channel within the scope of section 319 funds. The funds were given as a \$2 million matching grant from the federal government, where the local municipality in which each restoration site was located provided most matching funds. The total cost for all projects under this program is \$4.54 million.

channelized and straightened by the Army Corps of Engineers from the 1950's through the 70's, the river's velocity increased and floodplain access removed. These high-volume, high-velocity flood flows lead to destabilizing bank and streambed erosion, down-cutting, and lateral migration. The NPS funding was given to stabilize the river channel by reducing erosion and restoring floodplain access.

The channel stability of the Jordan River was greatly reduced by the 1984 "hundred year" floods. Because the river had been

All of these EPA project sites are located on public land. No private owners of land along the river were inclined to participate in the county's restoration activities. The sites range along the length of the river, from 3600 South to 13000 South. At 3600 S. and 10200 S. the county used a new "bio-engineered" material called COIR cloth, a natural material that allows groundwater discharge and stops bank erosion. It is installed in a series of terraces to eliminate deeply cut banks and reestablish better slope. At 3900 S. the county funded cleanup and restoration. From Bullion St. to 6400 South work was on the Murray Parkway Restoration Project. At 7800 South, the Wetland Ponds Project created storm water wetland ponds for water treatment. These ponds catch the first 10% of run-off, the most highly contaminated with nonpoint source pollutants. Further up the river at 9000 South is the River Oaks Restoration Project, an emergent bench restoration with successful plant diversity in revegetation. The 13000 South Riverbend Restoration Project created a 75 foot graded flood bank to the river.



## *The Legacy Nature Preserve*

Ella Sorenson, Great Salt Lake Audubon;

Andrew Gemperline, UDOT Legacy Parkway Project

### Legacy Parkway restoration of Great Salt Lake wetlands, uplands and wildlife habitats

The Legacy Nature Preserve (LNP) was developed to mitigate impacts from Legacy Parkway construction on the Great Salt Lake wetlands, habitat and flyway. A court ruling has since halted construction of the contested highway, but work on this Preserve has continued regardless. The concept behind creating LNP is to preserve and enhance wetlands, uplands, and wildlife habitat adjacent to the Great Salt Lake. The current preservation concept and location represents a consensus of state and federal resource agencies and stakeholder groups.

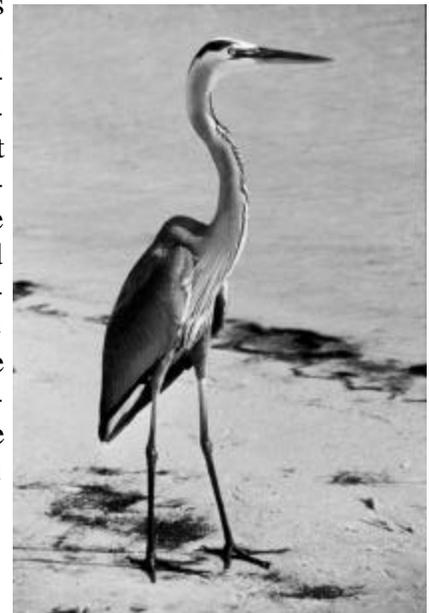
The LNP totals 2,098 acres – a mosaic of diverse uplands and wetlands set aside in perpetuity. The original concept, with preferred alignment, incorporated 1,251 acres. 317 acres were added in consultation with US Fish and Wildlife Service for wildlife impacts. Another 530 acres were added in consultation with the Environmental Protection Agency.

Jordan River Flood Plain area of LNP is fairly intact. General restoration activities focused on removing debris, re-vegetating the area, and controlling noxious weeds and invasive species. Some interesting debris removal statistics for 2002 were provided: 905 tires removed; 3,614 large dump truck loads of trash and debris hauled out; 5 man-made structures demolished; 5 abandoned car frames removed; 10,000 feet of existing fence removed; 1,800 feet of silt fence installed for environmental purposes. Total debris removal costs were \$700,000. Further restoration work included

removing roads and ditches, eliminating grazing, removing interior fencing, installing protective fencing, and re-seeding. An archeologist monitor was present during restoration construction activities. Total restoration work costs were \$1.4 million.

Enhancement measures employed on the preserve included the restoring the hydrology of the Jordan River flood plain, providing year-round flow in the old Jordan River channel (the “mini-Jordan”), providing seasonal inundation of depressional wetlands and upper playas, installing a water delivery system, and modifying natural channels. Potential nearby water sources for use in these measures are North Canyon Creek, the Jordan River, a tile drain outlet, and irrigation water rights.

Ongoing activities on the preserve are weekly bird surveys and vegetation monitoring, on the ground and by aerial photography. The habitat types supported on the preserve are marsh, wet meadow, mudflat/saline playa, riparian, and desert scrub. Many species use these protected habitats and have been observed, such as American avocet, long-billed curlew, marbled godwit, willet, great egret, great yellowlegs, brine flies, and the odd rabbit! The future work for the Legacy Nature Preserve is in creating a wildlife management plan for the area.



## *Great Salt Lake Audubon Jordan River Project*

Tom Hopkins, IHI Environmental

Vaughn Lovejoy, TreeUtah

The Great Salt Lake Audubon/Tree Utah Migratory Bird Habitat Restoration Project is located in South Jordan between approximately 9800 South and 11100 South along the east bank of the Jordan River (approximately 700 West). The goals of this project are to create new habitat for neo-tropical migratory birds, to enhance existing habitat, and to develop a management plan that would be implemented by Great Salt Lake Audubon for long-term management of the area. Project partners include: Great Salt Lake Audubon (GSLA), the long-term manager and project sponsor; TreeUtah, a project sponsor; Utah Reclamation, Mitigation and Conservation Commission (URMCC), a stakeholder and the property owner; US Fish & Wildlife Service, the trust fund administrator of Sharon Steel Funds and a stakeholder.

In 1995 F&WS solicited proposals to use funds from Sharon Steel natural resource damage settlement. Properties considered for use of the settlement money were beyond the Sharon Steel zone of contaminant influence, within or adjacent to the Jordan River corridor, and in public ownership or owned by a not-for-profit organization. A cooperative agreement was awarded to GSLA and the city of South Jordan in 1997. The GSLA proposed property area approximately 71 acres in size. South Jordan City proposed and area of approximately 100 acres. IHI Environmental was contracted by both parties to act as prime consultant to design, implement and draft a management plan for the project area. The URMCC, using Central Utah Project (CUP) funds, purchased three land parcels totaling approximately 72 acres. Now, seven years into the project, the acreage is reduced to approximately 120 acres. South Jordan City is no longer actively

involved in the project; only 40 acres owned by the city are left through a conservation easement, which designates that area for restoration and protection.

The main project activity is to remove and control non-native woody plants like Russian olive and tamarisk, and to restore the area by enhancing the wetland and riparian zones through planting native species of woody plants. Project has been challenged by the removal costs for non-native woody plants. The main method of removal was cutting with chainsaws, spraying stumps and piling slash for disposal. Disposal of slash was difficult to plan for; off-site disposal was too costly, chipping and recycling mulch for plantings was too costly. Burning was the most acceptable and least expensive, obtaining permits became a problem. Mulching the non-native plants was used as the final method for removal, which was effective at removing volume and also left chipped pieces for mulch. F&WS paid for a contractor to come in and chip/mulch 20 acres of standing plants. The contractor also chipped 150 piles of already downed slash. Finding water for planted seedlings has been a second challenge to the project. Kennecott Corporation leased water rights from the Jordan River to the project and other water shares have been purchased.

TreeUtah began planting on this project with volunteers in November 1998. As of May 2004 the non-profit organized 22,700 hours of volunteer service to plant and care for over 31,000 native shrub and tree seedlings. During this time TreeUtah became more convinced than ever that the success of restoration projects along the Jordan River is going to be determined by our commitment to long-term maintenance.

120 acres  
of habitat

## *Implementing an Wildlife Habitat Incentives Project*

Dan Potts, Salt Lake County Fish and Game Association

The Salt Lake County Fish and Game Association received WHIP funding to restore their Jordan River property, and hope to encourage more landowners to create wildlife-friendly properties by example.

The Salt Lake County Fish and Game Association (SLCF&GA) received a grant from the USDA Wildlife Habitat Incentives Program (WHIP) to create a demonstration wildlife habitat landscape on its property in Murray. The non-profit hopes to promote the "fad" of enhancing smaller, often private properties like theirs to increase wildlife value. They are soliciting the assistance of anyone willing to work with to "do the right thing!"



The SLCF&GA offers the experience of almost 80 years as the oldest wildlife-oriented organization in the Intermountain West. Their formality in dealing with democracy and consensus, and our participation in a wide variety of conservation efforts gives us a perspective that many organizations have yet to attain. The vision of implementing a small scale wildlife habitat comes from the desire to have a learning tool and a landmark for working with small private landowners. Smaller landowners constitute the majority of the properties along the river. Entities such as the Jordan River Natural

Areas Forum that work to preserve and restore habitats will run out of opportunities to secure and restore larger contiguous natural areas long before it runs out of opportunities on smaller, more numerous parcels that account for a far larger percentage of the open space needed by wildlife.

The USDA grant provides \$20,000 for an intensive effort on four acre area. The Association's property at 5700 S and Bullion Street is south of Interstate 215 near the open space of a golf course. The work funded will include a nine foot deep restored oxbow pond. A lot of volunteer manual labor from association members will help the project along, and enable more intensive work and maintenance on the site. So far on the four acres they have seen wildlife use, including night herons, deer, and fox. An additional part of the project is to include handicapped fishing opportunities in line with the goals of the SLCF&GA.

The Association sees the work as wildlife value enhancement, not true restoration. For example, they serve wildlife and human needs with both native and non-native species. Amendments and adjustments like this to the concept of restoration will be needed to tailor habitat work on the smaller scales and abilities of private landowners. The Association is working to be a leader in this change and to lead by example for other smaller landowners along the river. They see the need to convert attitudes and landscapes of these people as a priority. By giving them physical demonstration to relate to, they want to encourage this change and perhaps begin a fad that will spread.

## *Combining Community and Ecological Programming*

Troy Bennett, Utah Federation for Youth

The Peace Trees project is a community driven project. Originally begun as an international program to bridge Cold War animosity by bringing 14-18 year-old volunteers from the USSR and the US together to work on ecological issues. The current Peace Trees sits in Salt Lake is on city property, approximately at 1600 South 1200 West on the Jordan River. The youth volunteers care for one of the remaining natural peninsulas left along the river. They working on “tying to make it nice,” and on understanding its value as habitat, and a natural space.

The youth lead projects, take on getting their own funding, and learn lots of organizing skills. Peace Trees has internship positions for motivated teens. They host community festivals, and have organized events like a “Community-day-out” on the river. To increase awareness and teach the local community, they put on service and education fairs where kids make displays about environmental and community issues. The youth learn about and address ecological issues that affect their area, such as nonpoint source pollution. The whole operation is very grassroots, with not a lot of funding, but lots of manual labor. They advertise their events themselves by distributing flyers throughout the neighborhood. It all happens “a little bit at a time.”

The Peace Trees program exemplifies the importance of involving local communities, especially kids, in restoration. Involvement has created a sense of ownership, and the area has seen less vandalism and graffiti as a result. The river corridor area used to be host to illegal and gang related activity. Since Peace Trees helped involve the community, and encourage education and understanding of the values of the natural area, the community has taken on care of the site and watches out for negative uses. Children now walk to school through the area. Wildlife watchers can see beaver, muskrat, groundhogs, and lots of

birds. It is not a forgotten area of the river behind the neighborhood; it is an ongoing process of caring and building community — with the river as a part of it.

The Peace Trees project is an example of building the needed connections between community and the environment for restoration projects.





