VIRGIN RIVER
PROGRAM

Spring 2010 NEWSLETTER

We all win when we protect our environment

by Dan McArthur, Mayor of St. George

Washington County has a history of working together to solve problems and enhance the life of its residents. The Dixie area would never have been successfully settled without the pioneers working cooperatively to develop water projects that provide us with the water we are using today. The Regional Water Supply Agreement between cities and towns in Washington County and the Water Conservancy District is one such example.

Win-win solutions are always present if we work together to find them. The Virgin River Program is one such solution within our community that helps us protect the river and all the species that depend on it.

Let's look at the Virgin River and what it means to the local community. All of our communities are along streams, particularly along the Virgin River. We as human beings need to be able to use the river that gives us life. Also, we need to celebrate the life in the river and protect it. People can still use the resource to meet water needs. Trails can exist along the river for our pleasure and the river can be used for recreation. As we cooperate and partner with programs that are mandated, success is inevitable; we can co-exist with those programs. In the long run, we end up taking better care of the resource we are protecting.

St. George City is planning to establish a river habitat mitigation plan and bank. This plan would educate people as to how we can co-exist with the species that share the river with us, and it would facilitate environmental improvements in a natural way by making it part of a mitigation plan. The plan would result in more rapid mitigation and decreased environmental red tape as we continue to develop and grow. Doing a little work up front will provide partnerships and results that can last into the foreseeable future.

Solving environmental issues is essential to the well-being of Washington County. Win-win solutions help the community provide for its needs while at the same time protecting the river and enriching wildlife habitat. The Virgin River Program is one such solution that is working.

Virgin Spinedace

The Virgin spinedace looks, feeds and behaves like a miniature trout. It grows to five inches in length and gets its name from the sharp spiny rays in its dorsal fin.

Virgin spinedace are found throughout the tributary streams in the Virgin River Basin. They prefer deep pools and runs and are at home in both clear and turbid water.

Southwest Willow Flycatcher

The Willow Flycatcher is a neotropical migrant that winters in Central and South America and returns each year to the United States during nesting season. It is attracted to densely-vegetated marshy areas along the Virgin River. They arrive in small numbers during May to stake out their territory, build a nest, and lay eggs. The female typically raises three young during the summer. The Willow Flycatcher leaves the United States to return to its winter area by the end of August.

The Virgin River Program is working with various groups to increase Flycatcher populations while ensuring landowners are not negatively impacted by its presence.

Teamwork enhances local riparian areas

by Marc M. Mortensen, Assistant to the St. George City Manager

Back in 2008, St. George City's sewer outfall line project resulted in impacts to the Virgin and Santa Clara rivers behind the Dixie Center. This left St. George with the responsibility to mitigate these impacts to this land.

The Virgin River Program (Program) stepped in together with St. George, Washington City, Santa Clara, Utah Conservation Corps, Utah Division of Forestry, Fire and State Lands, Utah Division of Wildlife Resources, Washington County, and the Washington County Water Conservancy District to plant six acres of willows on this and other City of St. George sites just this past winter.

The Program works in collaboration with local municipalities and regulatory agencies to protect native species along the local streams and their habitats while ensuring that water and other community needs (trails, bridges, *etc.*) can still be met.

The City recognizes other work being done by the Program and its partners such as the Lower Virgin River Fire Council. This Council was established specifically to address tamarisk removal following the creation of the 2005 Utah Forestry, Fire & State Lands Fire and Fuels plan. This plan identified areas in urban sections along streams where fire in tamarisk could potentially damage or destroy homes. The plan outlined measures designed to protect homes from fire along the Virgin and Santa Clara rivers and Fort Pearce all the way from Bloomington to the Hurricane Bridge.

Revegetation efforts across from Heritage Elementary on Riverside Drive

During this past winter, over 230 acres of tamarisk were removed by the City of St. George along with additional acreage by Santa Clara and Washington as part of the implementation of this plan. Thirty acres were revegetated with willows and cottonwoods. Additional native vegetation plantings and seedings are planned in the future.

Many of the acres where tamarisk is being removed are in "upland" areas, making access to water difficult. The City, the Program and other Fire Council members have been working to find ways to get water to some of these areas so that revegetation efforts will be successful. However, in the meantime, the simple removal of tamarisk often allows other native plants to begin growing.

All of the partners in the Fire Council have several objectives in mind when working together to remove invasive species along our local rivers:

- provide better wildlife habitat
- enhance aesthetics of the area
- improve river function
- eliminate fire and erosion dangers and
- increase the general health of our watershed.

These objectives help in the accomplishment of the overall goal of the Program to work with local municipalities and agencies in order to protect both native species and residents along our rivers in Washington County.

Attention Mother Nature's Papparazzi!

It's time to start planning for the 2010 Virgin River Photography contest.

Dust your cameras off and start looking for those exquisite Virgin River Basin scenes and the captivating local wildlife to capture on film. If you want to use a photo you took some time ago, there is no restriction as to when the photo was actually taken as long as it was taken by you.

Fine print: Entries must be submitted as high resolution images. Final winning photos must have a resolution minimum of 6 mega pixels (MP) in order to be considered. Submit entries via **www.virginriverprogram.org** between June 1 and September 30, 2010. Winners will be chosen by late October. The calendar will be made available in December 2010.

Public meeting concerning Virgin River Native Fish Species Enhancement Project

The Virgin River Program, in conjunction with the U.S. Fish and Wildlife Service and Arizona Game and Fish Department, will hold a public scoping meeting for the proposed Virgin River Native Fish Species Enhancement Project.

The purpose of this meeting is to solicit public comment for the

- proposed salvage of endangered fish and
- chemical treatment of invasive fish

in the Virgin River from the Utah state line down to the mouth of the Virgin River Gorge. This project is tentatively planned for October 2010.

WHERE:
Virgin Valley Water District
500 Riverside Road • Mesquite, NV 89027

DATE: **June 1, 2010**

TIME: **6:00 pm to 8:00 pm.**

A decade of recovery efforts pays off

by Corey Cram, Watershed Coordinator for Washington County Water Conservancy District

The Virgin River Program is making significant progress in the recovery of endangered fish in the Virgin River. The primary threat to native fish is the presence of the red shiner, a baitfish which made its way into our river system about three decades ago by swimming upstream from Lake Mead. Just as the cottonwoods and willows have been choked out by the invasive and nonnative tamarisk, the red shiner has out-competed the native fish of the Virgin River.

For over two decades, the Virgin River Program has implemented measures to get rid of red shiner. A fish barrier, which consists of a small waterfall to prevent upstream fish migration, was constructed in Bloomington upstream from Wal-Mart and farther downstream near the Utah-Arizona state line. Last winter a third fish barrier was constructed in Arizona near the mouth of the Virgin River Gorge. These fish barriers, along with some of the irrigation diversions in the river, help prevent upstream movement of the unwanted fish. They also section the river into manageable segments.

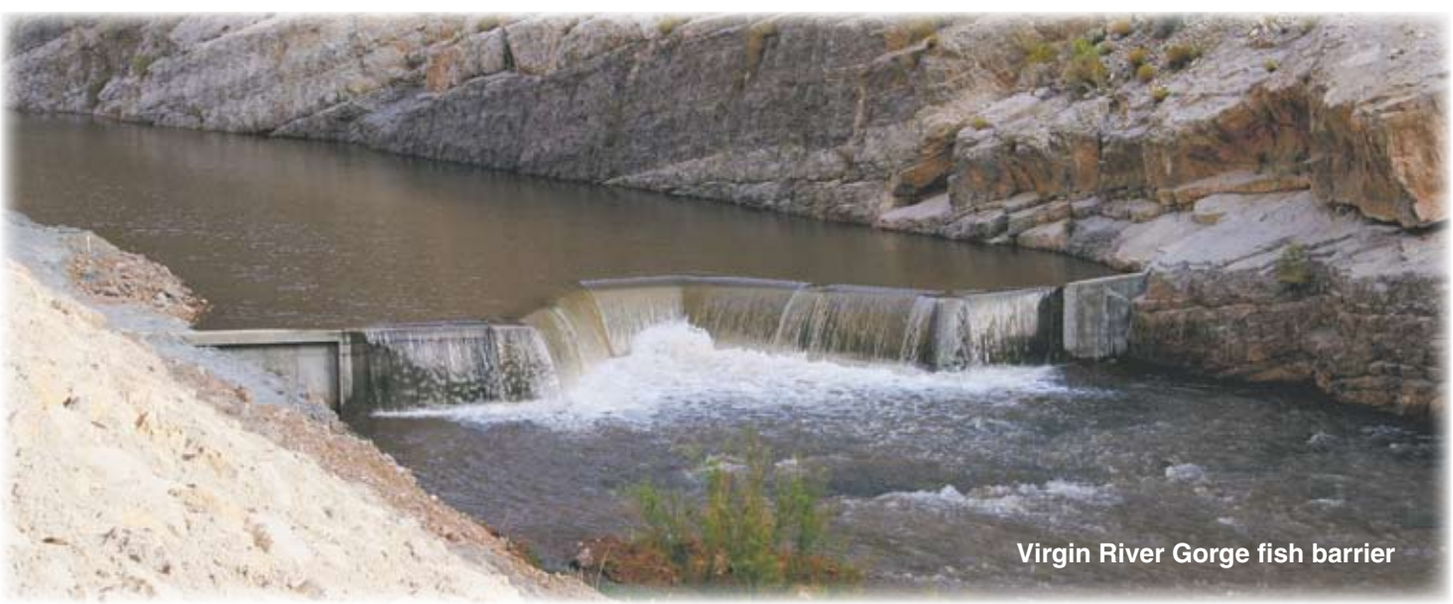
Along with preventing upstream movement of unwanted fish, the Virgin River Program works to remove the red shiner that made it into our area. Removal of this fish is accomplished by

- dragging nets through the river and pulling the native fish out of a stream segment and
- treating the stream segment with an organic chemical called rotenone.

Pulling native fish out of a stream segment in preparation for treating the stream

Rotenone only affects critters with gills; it prevents them from using oxygen. The rotenone is neutralized with the use of potassium permanganate, a chemical that is commonly used at water treatment plants, including the Quail Creek Water Treatment Plant.

Salvage of native fish and rotenone treatment efforts have been taking place on the Virgin River once or twice a year for over a decade. Irrigation canals, marshes and even golf course ponds have been addressed with the help and cooperation of water users and property owners. At this point, red shiner has been successfully removed from the Virgin River in Utah. Efforts are now focused on removing nonnative fish from the Virgin River through the Virgin River Gorge.



Virgin River Gorge fish barrier

At this point, red shiner has been successfully removed from the Virgin River in Utah.
— Corey Cram

The Washington County Water Conservancy District is a major contributor and partner to the Virgin River Program. The Program was established to address endangered fish recovery while still allowing water use for human needs. While dealing with endangered species is a great challenge, we believe that cooperation and ultimate recovery of the endangered fish species is the best solution.

What's happening in the Virgin River?

By Steve Meismer, Local Virgin River Program Coordinator

In the winter and early spring, the waters of the Virgin River are cold and muddy. Sounds like a good time to stay out of the water, but while the fish aren't moving around so much, the biologists that monitor the fish are jumping in to find out what is happening. Biologists with Utah Division of Wildlife Resources (UDWR) start sampling in February and work through December. This spring there have already been a number of efforts aimed at helping the native fish of the Virgin River.

In March 2010, UDWR and the Virgin River Program stocked two locally endangered species into the Virgin River. Both species, the woundfin and Virgin River chub, are maintained in off-site hatcheries to ensure survival of the species and to provide offspring which can be stocked back into the river. Woundfin from Wahweap State Fish Hatchery near Lake Powell were stocked on March 11. Approximately 1,700 two-inch long woundfin were stocked into La Verkin Creek and the Virgin River in La Verkin. These fish were stocked in early spring with hopes that they would spawn after the spring runoff in the river. The woundfin were marked with a small strip of rubber inserted under their skin (VIE tag) to help identify these fish.

Virgin River chub were stocked in a number of locations in the Virgin River from the confluence of Gould's Wash by Sky Mountain Golf Course downstream to the Highway 9 bridge near Quail Creek Reservoir. Approximately 2,700 four-inch long chub came from Dexter National Fish Hatchery in Dexter, New Mexico.

The other large effort that has taken place this spring was the spring full pass. Biologists sampled all available sections throughout 16 miles of the Virgin River from Pah Tempe Hot Springs to the Washington Fields Diversion. This sampling is conducted for a week to 10 days every spring and fall. It is the primary means of tracking fish population status in the Virgin River. Over the course of this sampling, the biologists pull about 3,800 seine (net) hauls over three million square feet (70 acres).

The chart below lists the number of native fish captured and released during this sampling effort.

These results are encouraging and show an increase in native fish populations from the spring of 2009. More sampling will take place this summer to monitor changes in fish populations during the various seasons.

Number of native fish found in the Virgin River during the sampling on April 5-9, 2010

Woundfin	Virgin River Chub	Virgin Spinedace	Speckled Dace	Flannelmouth Sucker	Desert Sucker
270	880	11	3,233	237	1,963

Virgin River Program Word Search

Breed
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Fledgling
Flycatcher
Invasive
Protect
Recovery
Riparian
Shiner
Tamarisk
Teamwork
Tributary
Turbid
Watershed
Willow

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Editor:
Steve Meismer,
Local Program Coordinator
Contributors:
Dan McArthur, *Mayor of St. George*
Marc M. Mortensen,
Assistant to the St. George City Manager
Steve Meismer, *Local Program Coordinator*
Corey Cram, *Washington County Water Conservancy District*
Ann Jensen, *Washington County Water Conservancy District*

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Program Signatory Partners

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