



VIRGIN RIVER PROGRAM

FALL 2010 NEWSLETTER



Program emphasizes teamwork and minimizes conflict

by Rick Rosenberg, Mayor of Santa Clara

After the devastating floods of 2005, the Virgin River Program (Program), Washington County Water Conservancy District (District), Santa Clara City, and representatives from St. George, Washington and Washington County sat down together to create a plan. This plan would assist decision makers in the area to manage land along the river and establish protocols that would minimize erosion, flooding and property damage. The Program provided valuable assistance drafting the document itself as well as funding for what was to become the Santa Clara River Master Plan (Plan). Any development along the river is now required to comply with the recommendations in the Plan.

While the Plan emphasizes the protection of life and property, it also works to ensure natural river function which includes reestablishment of riparian vegetation and wildlife habitat. The Program continues to work with Santa Clara in the implementation of this Plan in such areas as:

- **Obtaining stream alteration permits** – after the 2005 floods, significant repair work was needed along the Santa Clara River. The Program was in-

strumental in working with the regulatory agencies involved when a stream alteration permit is required. The Program coordinated onsite meetings with regulatory agencies to help them understand the projects and find solutions to minimize impacts to native fish habitat while still supporting projects. Santa Clara received the necessary stream alteration permits.

- **Restoring riparian areas** – when a project threatens to impact riparian vegetation or fish/bird habitat, the Program tries to provide ideas on how to lessen the impacts. The Program often coordinates equipment, materials and resources to make the restoration happen. The Division of Wildlife Resources often provides the labor and the District may assist with the necessary equipment.

- **Creating a Fire Council** – various agencies, cities and interested parties started gathering to address issues dealing with the impacts of tamarisk along our river corridors. After a time this group was informally organized into a Fire Council. The Council is a mechanism to coordinate tamarisk removal activities and to channel funds to improve flood and fire protection efforts, river habitat and river function.

The Program works closely with river project partners to prevent conflict from festering and then having to deal with fallout after the fact. This approach works because the Program is alive and functioning

in Washington County. People don't even know that conflict exists because the Program works behind the scenes to address issues in their infancy.

The Program is not a roadblock; it is a partner that has been invaluable in assisting Santa Clara with the implementation of its Plan. The Program has helped us put our river back together.



Desert Sucker

The desert sucker gets its name from the way it feeds on aquatic vegetation and insects. It uses its thick cartilaginous lips to scrape and suck food from rocks and boulders along the bottom of the river.

Desert suckers are very colorful during the spring spawning season, developing bright orange and black racing stripes along their sides.

Desert suckers are considered a



sensitive species in Utah where they are only found in the Virgin River and its tributaries.

Speckled Dace

One of the most widespread species in western North America, the speckled dace, is found in large numbers throughout the Virgin River and its tributaries.

Speckled dace prefer rocky areas but are comfortable living in all habitats and stream sizes.

Speckled dace exhibit a kaleidoscope of shapes and colors across their range. Males display bright red



“lipstick” and red fins to attract mates during breeding season.

Collaboration creates healthier fish population/river system

by Ann Jensen

The Dexter National Fish Hatchery & Technology Center (Dexter) opened its doors in 1932. Its main objective at that time was to rear and supply fish to waterways for recreational purposes.

Dexter worked with two endangered species as early as 1971.

One year after the Endangered Species Act was passed in 1973, four endangered fish species were introduced to the fish hatchery. In 1978, Dexter was transformed from a facility that raised fish for sport to a facility that shelters and rears endangered fish.

In 1991, Dexter evolved into one of only seven technology centers creating new technology and analyzing fish genetics. In 2005, a fish health unit was added. This unit monitors aquatic species health issues for the southwest region of the United States.

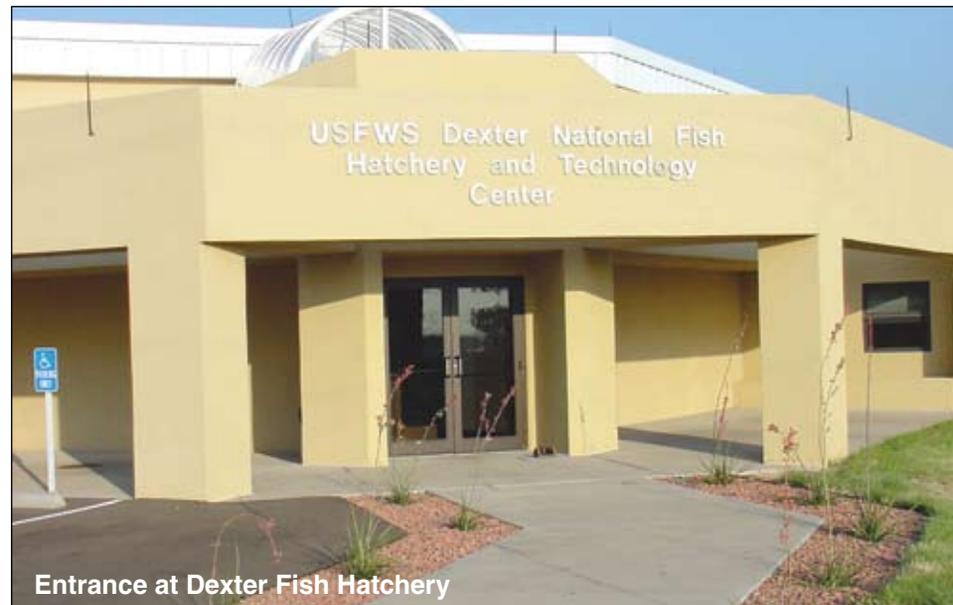
Today, Dexter houses 17 threatened and endangered fish species, the largest number of threatened and endangered fish species in any facility in the United States. In any given year, a total of one million to one-

and-a-half million fish are housed in the facility. Dexter is considered to be the state-of-the-art hatchery facility in the U.S. for native and endangered fishes.

One of the main objectives of Dexter is to work with partners to propagate a species for reintroduction of offspring back into its native habitat.

Woundfin from the Virgin River were brought to Dexter as early as 1979 to develop culture techniques. Current stocks are derived primarily from woundfin collected in the late 1980s. The Virgin River Program has learned that there are great challenges associated with increasing the number of woundfin in the Virgin River. The woundfin has proven much more difficult to successfully spawn and rear young in a hatchery. The quality facility and expertise at Dexter has generated success with fish to stock where other hatcheries have struggled.

In recent years the Virgin River Program has been working with Dexter to provide larger and more mature fish which are better able to



Entrance at Dexter Fish Hatchery

survive the rigorous conditions experienced in the Virgin River.

Dexter has provided over 108,000 woundfin for stocking into the Virgin River in Utah and Arizona over the past 20 years. During the past five years, woundfin stocked into the river are tagged. This tag allows biologists to distinguish between wild and captive-produced fish, track fish movements, determine age, and evaluate the effectiveness of different management techniques.

Virgin River chub were initially brought to Dexter in 1989. Dexter has provided over 6,500 Virgin River chub for stocking into the Virgin River.

In addition to providing woundfin and chub for local rivers in Washington County, Dexter seeks to improve the quality of fish reared through genetic research and maintain fish

populations in the event a catastrophic loss of a species should occur. For example, in 2007 a summer flood caused drastic changes to river water quality and all the woundfin

Dexter produces on an annual basis anywhere from 10,000 to 20,000 young of year woundfin.

in the Virgin River from L a V e r k i n Creek downstream to Washington Fields were killed.

The broodstock maintained at Dexter allowed for rearing of young and restocking of woundfin into the river.

The Virgin River Program has been working with Dexter since 2003 and plans to continue working with the fish hatchery to enhance endangered fish populations in the Virgin River.



Buildings and ponds at Dexter

*Information and photos
provided by
Manuel Ulibarri,
Center Director*

Wilson diversion project a win-win situation for fish and family

by Corey Cram, District Watershed and Environmental Coordinator

The Virgin River Program's (Program) mission is to recover, conserve, enhance and protect native species in the Virgin River and to enhance the ability to provide adequate water supplies for sustaining human needs. The Wilson Diversion Project in La Verkin is one such collaborative effort where both wildlife and people came away with a little bit more than they started with.

The original family farm diversion in La Verkin Creek dated back to the 1930s when the state changed the road alignment and constructed a concrete diversion. When that diversion washed out in 1947, the Wilson family built a new one. The Wilsons relied on this diversion to get water to their farm, pasture and orchards.

What used to take three days of shoveling to get water back into the ditch now takes 20 minutes to turn on the valves.

— Dale Wilson



This diversion, however, constituted a barrier to upstream fish movement. The fish could not easily move out of the Virgin River into La Verkin Creek. The Program, the District and the Wilson family collaborated in order to come up with a win-win situation whereby both irrigation needs and fish needs were met.

A fish ladder was built that would allow fish to move back and forth between the Virgin River and La Verkin Creek. The fish now have four miles of

stream in La Verkin Creek to utilize. This freedom of movement allows the fish to swim into cooler waters, evade predators, spawn and take refuge from Virgin River floods.

The Wilson family exchanged their water rights on the stream with the District for water shares in the LaVerkin City irrigation system. They now have pressurized irrigation. The water runs through an enclosed pipe so they no longer have to clean out the ditch.

The Program paid for the piping, valves, *etc.* necessary to connect the Wilson family to the secondary irrigation system.

Dale Wilson remarks that what used to take three days of shoveling to get water back into the ditch now takes him 20 minutes to turn on the valves.

This project is a good example of how the environment and people can benefit from working together.



Virgin River Photo Contest deadline near!

Don't forget to enter your photo in the photo contest. Selected photos will be featured in the 2011 Virgin River Program calendar.

Final winning photos must have a resolution minimum of 6 mega pixels (MP) in order to be considered. Submit entries via www.virginriverprogram.org no later than September 30, 2010.

Getting rid of the Virgin River's most wanted (criminal)

By Steve Meisner, Local Virgin River Program Coordinator

You haven't seen its picture hanging on the wall of your post office, but a small, unwanted, nonnative fish has moved into and taken over the Virgin River.

This criminal is the red shiner, a fish that originally came from Midwest streams. It got into the Virgin River from Lake Mead in the late 1970s, moved into Utah's Virgin River in the 1980s and has been destroying native fish populations ever since. In 2009, the Virgin River Program (Program) built a fish barrier about three miles upstream from the mouth of the Virgin River gorge. This six-foot high concrete wall creates a small waterfall and prevents the red shiner from moving upstream.

During the Fall of 2010, several agencies including the Program and its federal, state and local partners will remove red shiner and other nonnative fish (catfish, mosquitofish) from a 17-mile section of river through the Virgin River gorge. The Program has been working hard and has removed the unwanted fish in the upper Virgin

River down to the Arizona state line. Fish will be removed with the chemical rotenone that does not allow the fish to use oxygen in the water. Native fish will be removed in the weeks prior to the treatment out of target reach and placed either upstream or in temporary holding facilities until after the treatment. Once the chemical has travelled the 17 miles, it will be neutralized by potassium permanganate.

A couple of weeks ago, biologists sampled this particular stretch of river. They found 588 native fish of which 171 were classified as endangered. They found over 236,000 red shiners. That works out to 400 red shiners to each native fish.

What might you see during the course of this effort? You might see a purple tinge to the river during the



treatment itself in the lower part of the gorge.

Until the potassium permanganate dissipates, the river may look a little strange. Rotenone affects organisms with gills and does not affect other animals or people. The potassium permanganate used to neutralize the rotenone is a chemical that is used at the Quail Creek Water Treatment Plant and other drinking water plants to help purify the water for drinking.

If anyone has questions about this project, please contact Steve Meisner at 435-673-3617.



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State of Utah Department of
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U.S. Bureau of Land Management
U.S. Forest Service
Dixie Conservation District
Washington County Farm Bureau
The Nature Conservancy

Virgin River Program Word Search

aquatic	hatchery
chub	irrigation
dexter	river
ditch	spawn
diversion	species
endangered	sucker
floods	wildlife
habitat	

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b p s c u q b v p i p j w n t
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