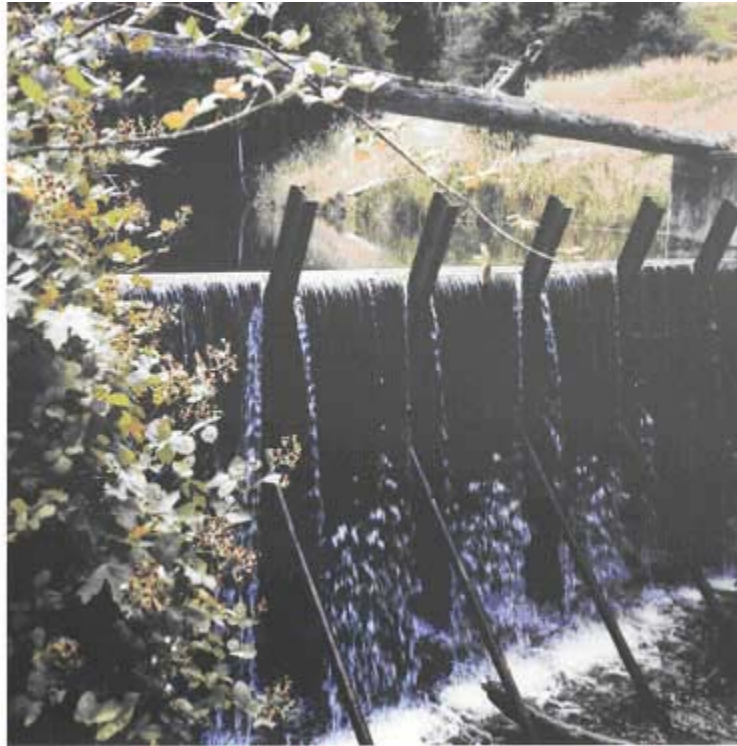


**PROJECT COMPLETION REPORT**  
**South Myrtle Ditch and Dam Removal**



*Prepared by*

**Bob Kinyon**  
Umpqua Basin Watershed Council

November 15, 2001

# South Myrtle Ditch and Dam Removal

## BACKGROUND

### Landowners:

Michael G. and Pauline R. Danielle  
12716 S. Myrtle Road  
Myrtle Creek, OR 97457

Richard M. and Emma P. Deam  
293 Whitetail Lane  
Sequim, WA 98382

Howard Kevin White, Karen L. Smithson-White and Frances Ward White  
2098 Castro Street  
San Francisco, CA 94131

James G. and Dottie M. McKinney  
11315 S. Myrtle Road  
Myrtle Creek, OR 97457

David A. Shepherd  
10920 S. Myrtle Road  
Myrtle Creek, OR 97457

Randall and Lorraine Walls  
1455 Harbison Canyon Road  
El Cajon, CA 92019

Al and Ginger Zuppan  
11780 S. Myrtle Rd.  
Myrtle Creek, OR 97457

Richard and Sandy Graf  
10062 S. Myrtle Road  
Myrtle Creek, OR 97457

**Project Location:** T29S, R3W, Sections 19 & 20 and T29S, R4W, Section 24

**Scoping:**

In early June 1998 I met with Mike Danielle for the first time at his 12-Mile Ranch home on South Myrtle Creek. Also at the meeting were Dave Williams, Douglas County watermaster and his assistant, Don Henry. This was the genesis of the effort to take out the diversion structure, fill in the irrigation ditch and change all water right holders on the ditch from flood to sprinkler irrigation. Mike was uncomfortable with the potential liability of someone putting up or taking down the splashboards on the dam. He was also annoyed that downstream water users were blaming him for fluctuations in water level because the diversion structure was on his property. Having the reservoir serve as the community swimming hole added to potential liability. As a consequence, the Danielle's were motivated to move the project along.

At subsequent meetings at Mike's home, Dave and I met with Kevin White. He is an absentee landowner but was influential in gaining support for the project from his neighbors.

I penned a letter to all the landowners on the ditch dated June 30, 1998. In it I described the purpose and need for the project. I indicated that a commitment of support from each water right holder was necessary if we were to proceed with the project. Responses varied from "I support the project and have some ideas on how to go about it" to "no way is that dam going to be removed. I'll take it to the Supreme Court". It took a lot of cajoling and neighbor-to-neighbor peer pressure to turn the skeptics around, but 2 ½ years later the project is nearing completion. Some of the concerns expressed by affected parties were:

- It costs nothing now to flood irrigate. Why should I change?
- The power costs for the electric pumps will be enormous.
- The Craig ditch has sentimental value to me. My father and I put a lot of time and sweat into making it work.
- There will be strings attached if we use funds from state or federal agencies.

In October 1998 I met with Mike to discuss the status of the project. Responses from landowners were mixed and we needed a firm commitment prior to grant writing. Mike offered to draft a second letter and attached to it a one-page commitment document to be signed and returned by the affected individuals. The landowners agreed at this time that Mike would serve as project manager. Funding was subsequently procured to pay him a salary for his efforts. The project was too large and too complex for me to manage from the watershed council office. Mike was hired through the Douglas Forest Protective Association as a seasonal and then later through Cardinal Services, a temporary service provider. This played out as a smart move as Mike lived at the project site and was able to work effectively with all the landowners and contractors.

Mike began to get estimates for various components of the project work such as road boring (Tri-City Boring and Trenching), ditch filling (South Fork Roads) and costs for pumps and pipes (Douglas County Farmers Co-op). With the commitment letters in hand it was time for grant writing.

## **FISCAL**

### **1. Agency/Organizations:**

U.S. Fish and Wildlife Service  
Oregon State Office  
2600 SE 98<sup>th</sup> Avenue, Suite 100  
Portland, OR 97266

### **Program:**

Oregon Jobs in the Woods (JITW)  
Contact: Al Wetzal, Fish & Wildlife Biologist  
Phone: 503-231-6179 Fax: 503-231-6195

**Agreement:** FWS Agreement # 13420-99-J127

**Amount Obligated:** \$71,000.00

**Date of Award:** May 14, 1999

**2. Agency/Organizations:**

Bureau of Land Management  
Branch of Procurement Management  
PO Box 2965  
Portland, OR 97208

**Program:**

Wyden Amendment Funding  
Contact: Steve Shapiro, Ordering Officer  
Phone: 503-952-6227 Fax: 503-952-6312

**Agreement:** Agreement Number: HAA993B00  
Task Order: HAW993B03

**Amount Obligated:** \$50,000.00

**Date of Award:** September 23, 1999

**3. Agency/Organizations:**

Department of Environmental Quality  
1102 Lincoln  
Eugene, OR 97401

**Program:**

Contact: Bobbi Lindberg, Project Officer  
Phone: 541-686-7838, x 242 Fax: 541-686-7551

**Agreement:** Project Number: OR-99-62-319  
PCA Number: 60341  
DEQ Agreement Number: 133-00

**Amount Obligated:** \$10,000.00

**Date of Award:** May 3, 2000

**4. Agency/Organizations:**

Oregon Department of Fish and Wildlife  
PO Box 59  
Portland, OR 97207

**Program:**

Fish Restoration and Enhancement Program  
Contact: Dale Nelson, R&E Coordinator  
Phone: 503-872-5252 Fax 503-872-5632

**Agreement:** Project Number: 99-038

**Amount Obligated:** \$12,639.00

**Date of Award:** June 30, 1999

**5. Agency/Organizations:**

Joe Merchep Umpqua River Foundation  
c/o Sun Studs, Inc.  
2635 Old Highway 99 South

**Program:**

Challenge Grant  
Contact: Rick Sohn, Chair  
Phone: 541-673-0141, x323 Fax: 541-440-2516

**Agreement:** South Myrtle Ditch

**Amount Obligated:** \$500.00

**Date of Award:** December 18, 1998

**6. Agency/Organizations:**

Douglas Timber Operators  
3000 Stewart Parkway  
Suite 208  
Roseburg, OR 97470

**Program:**

Umpqua Fisheries Enhancement Derby  
Contact: Dan Johnson, Executive Director  
Phone: 541-672-0757 Fax: 541-672-3833

**Agreement:** South Myrtle Ditch

**Amount Obligated:** \$2,500.00

**Date of Award:** July 1, 1999

**7. Agency/Organizations:**

**Program:**

Oregon Watershed Enhancement Board  
942 SW 6<sup>th</sup> Street  
Suite E  
Grants Pass, OR 97526

Watershed Management Grant  
Contact: Mark Grenbemer, Region 2 Representative  
Phone: 541-471-2886 Fax: 541-471-2876

**Agreement:** Project Number: 99-303

**Amount Obligated:** \$45,818.00

**Date of Award:** June 9, 2000

**TOTAL AMOUNT OBLIGATED FOR THE PROJECT: \$192,457**

**Landowner Contribution (Match):**

- Danielle \$4,618.65
- Deam 1,570.00
- Graf 1,612.97
- McKinney 5,279.70
- Shephard 3,984.28
- Walls 10,196.01
- White 7,225.55
- Zuppan 4,913.76

**TOTAL LANDOWNER IN-KIND CONTRIBUTION: \$39,400.92**

**Miscellaneous Contributions:**

- NRCS Riparian Fencing, funded through the EQIP program (12 Mile Ranch): **\$10,000.00**

**TOTAL PROJECT COST: \$ 241,857.92**

The landowner's contribution was pegged at 10% of project costs, based on the original budget. If a landowner opted for an improvement in their irrigation system beyond the original budget, they would pick up the difference. An example would be a wheel line or water gun as opposed to the less expensive hand line.

An agreement was secured with each of the original owners. This Watershed Restoration Agreement spelled out the objectives of the project, the landowner and council obligations and term (10 years). This instrument has been an integral component of all council projects.

**Project Statistics:**

- Culverts 1 each
- Risers and Rainbird Sprinklers 181 each
- Valves 139 each
- Project Manager 380 hours (9.5 weeks)
- Pumps
  - 2 @ 11/2 hp
  - 2 @ 5 hp
  - 2 @ 7 1/2 hp
  - 3 @ 15 hp

- 1 @ 20 hp
- Pipe
  - Aluminum
    - 1" x 30' – 30 feet
    - 2" x 40' – 160 feet
    - 3" x 20' – 1,380 feet
    - 3" x 30' – 2,430 feet
    - 3" x 40' – 480 feet
  - PVC
    - 1" – 120 feet
    - 2" – 1,680 feet
    - 3" – 6,480 feet
    - 4" – 7,540 feet
  - Poly Pipe
    - 1 1/2 " – 100 feet
    - 2" – 39 feet
- Fittings 1,478 Various, from 'adapters' to 'water meters'

**Assorted Costs:**

- Laborer \$112.50
- Fish Screen \$663.43
- Trencher Rental \$1,288.00
- Electrical Contractors \$11,016.82
- PPL Power Drops \$19,321.14
- Cat Work/Fill Material \$5,605.10
- Certified Water Right Examiner \$14,165.10
- Surveying/Easements \$1,715.00
- *The News-Review* legal notices \$450.24
- Road Boring \$13,031.80

**FISHERY**

The concrete apron of the diversion structure spanned the stream width between two, large concrete wings on each bank. This obstruction would allow adult, anadromous fish passage, mostly steelhead, only in high flows. It was a total barrier to juvenile fish passage with a two-foot outfall in summer flows. This barrier precluded those fish from reaching 10 stream miles of available habitat.

Native fish found in South Myrtle Creek at the project site are coastal cutthroat, winter steelhead and coastal coho. The project was deemed a success when over the Christmas Holiday, 2000 Mike and Pauline Danielle saw several coho upstream of the diversion site.

**FLOW MODIFICATION**

The diversion structure was engineered and built at its current location by the Soil Conservation Service in 1966. Other diversion structures preceded the current one as indicated on a map made by the county

surveyor, H.L. Eppstein on January 15, 1927. The structure site (point of diversion) is located on the Danielle property at T29S, R3W, Section 20, SE/NE.

The structure was built of rebar and concrete anchored in bedrock. It had angle iron supports that held splashboards that elevated the water level approximately 14 feet. Water flowed into the “Craig” ditch on the north side of the structure. The ditch carried 2.5 CFS for 2 ½ miles and ended at the Graf property. The objective for this project was to retain that water in South Myrtle Creek where it would be metered out by each landowner as needed by pumping for irrigation. The removal of the apron was contracted to Native American Contractors, c/o Tim Rondeau, 676 Branding Iron Lane, Roseburg OR 97470, Phone 541-679-6334. Using a jack hammer, acetylene torch, excavator, loader and dump truck, the contractor removed the concrete and rebar and hauled the spoils to an upslope ravine nearby.

## ENGINEERING

Bruce Shaner, owner of Shaner Engineering, Inc., PO Box 1430, Roseburg OR 97470, Phone 541-672-4074 was hired under a personal services contract (UBWC 99PS8/9) as the certified water right examiner for the project. Bruce researched water right records; surveyed water righted acres on the ground; and constructed various maps documenting the amount and location of affected acres and points of diversion.

It was evident early on that this process would be complex and costly as the watermaster discovered older water-righted acres were double permitted, one atop another. Working diligently with landowners, Dave Williams was able to rearrange the puzzle and correct errors made decades ago. Bruce would then redraw the master map to depict the new locations. It took Dave several weeks to describe all the changes in applications for changes of points of diversion. Kudos to Dave and the entire staff of the Water Resources Department in Roseburg and Salem who struggled and succeeded in getting applications through this often-lengthy bureaucratic maze expeditiously.



Landowner, Mike Danielle standing in creek after removal of concrete apron, stream restored to natural channel level



## **South Myrtle Creek Ditch Project Douglas County, Oregon**

### **Project Background:**

The Umpqua Basin Watershed Council received a grant of \$10,000 from the Oregon Department of Environmental Quality on May 3, 2000, to help with the South Myrtle Ditch Project. The grant, known as a “319” grant based on its origin in Section 319 of the Clean Water Act, is targeted to projects that will improve water quality in streams that do not meet water quality standards.

South Myrtle Creek, which flows into the South Umpqua River, has been identified as having water quality problems from flow modification and high stream temperatures. These problems led the Oregon Department of Fish and Wildlife to identify low flows and flow alteration due to withdrawals as limiting factors on the populations of searun cutthroat trout and coho salmon. One significant flow modification is a diversion structure with a concrete apron and metal supports for planks used to raise the water level to provide water for irrigation.

The project, initiated by landowners along the creek, will remove the diversion dam and concrete apron, convert from ditch irrigation to sprinkler irrigation to conserve water, revegetate the denuded riparian area, and exclude livestock until the seedlings are well-established.

### **Oregon Plan Partnerships:**

The project was initiated when one of the landowners contacted the Water Resources Department for assistance. That landowner, along with the Department and the Watershed Council recruited all the other landowners who used water from the diversion, and they began to plan the various aspects of the project.

All the landowners are contributing to the project, donating services and supplies. In addition, funding is being provided by the U.S. Fish and Wildlife Service, the Oregon Watershed Enhancement Board, the Bureau of Land Management, the Natural Resources Conservation Service’s Conservation Reserve Enhancement Program, ODFW and its Restoration and Enhancement Program, and two local foundations, the Joe Mercep Umpqua River Foundation and the Douglas Timber Operators’ Fisheries Enhancement Derby. In addition, the Oregon Water Resources Department and Douglas County Watermaster have assisted the project by examining water rights and helping devise a plan whereby 2.5 cubic feet per second of water is being returned to



the stream. This project is in a high-priority area for flow enhancement based on priorities developed by ODFW and WRD as part of the Oregon Plan.

## **Project Highlights:**

### Removal of Diversion Structure:

Some form of diversion structure has been blocking South Myrtle Creek since the early twentieth century. The current concrete apron structure was installed in the 1960's, and during the summer, the structure is fourteen feet high, diverting water into a 2-1/2 mile irrigation ditch.

The removal of the structure, and the restoration of the streambed to its historic level will allow passage of salmon and trout to the ten miles of stream above the dam for the first time in nearly a century. Anadromous fish (cutthroat trout, coho salmon, and steelhead) will benefit from this additional habitat. Other aquatic life will also benefit from the reconnection of the areas above and below the dam.



### Increased Instream Flows

Currently 2.5 cfs of water is diverted from the stream into a 2-1/2 mile irrigation ditch. Ditch irrigation is the least efficient as far as water use is concerned due to losses from evaporation and leakage. In this case, irrigation will be switched to the more efficient sprinkler type, with individual pumps drawing from the stream's surface water instead of the ditch. This will result in an additional 2.5 cfs of water during the summer, which will help both flows and water temperatures.. In this case, irrigation will be switched to the more efficient sprinkler type, with individual pumps drawing from the stream's surface water instead of the ditch. This will result in an additional 2.5 cfs of water during the summer, which will help both flows and water temperatures.

### Riparian Restoration

Streambank restoration along the 2-1/2 mile project will consist of planting the riparian area, which has not supported vegetation due to annual flooding from irrigation. To

protect the young seedlings from livestock, the areas will be fenced until the vegetation is well-established.

Establishing this vegetation will contribute to the efforts to reduce stream temperatures to levels better supporting cold-water fish.

#### Further Opportunities

There may be opportunities for instream fish restoration in the ten miles opened up to anadromous fish.

This project has already spawned several similar projects in the Umpqua Basin.

#### **For more information:**

Additional information on the South Myrtle Creek Ditch Project may be obtained from Bob Kinyon at the Umpqua Basin Watershed Council (541-673-5756).

For additional information about other 319 projects in the Umpqua Basin, please contact Bobbi Lindberg of DEQ at 541-686-7838, x 242.

*May, 2000*