



# Boise River Side-Channel Habitat Improvement Project

## SUMMARY

After consulting with fishery experts at BioAnalysts and Idaho Fish and Game (IDFG), the Boise Valley Fly Fishers (BVFF) obtained the needed Stream Alteration permits and with the help of Boise Flood District 10 added 10 cubic yards of spawning-size gravel to a side channel of the Boise River. The gravel was generously donated by Sunroc and came from a nearby quarry. The goal of the project is to increase trout spawning which will result in more wild trout in the river and improved fishing opportunities for the Treasure Valley. BVFF is working on an educational sign at the site which has been sponsored by a grant from Fly Fishers International.

## F.A.Q.

1. What are you doing?

The Boise Valley Fly Fishers club is doing habitat improvement in a side channel of the Boise river to improve spawning conditions for trout.

2. Q: Do you have permits for this work?

A: Yes. We have Stream Alteration Permits from the Idaho Department of Water Resources and Army Core of Engineers. Copies of the permit are posted at our website, <http://www.boisevalleyflyfishers.wildapricot.org/>.

3. Q: Why are you adding gravel?

A: The Boise river has lost the smaller gravel that trout need to spawn. High water moves the small gravel downstream but Lucky Peak keeps new spawning-size gravel from replacing it.

4. Q: What kind of gravel are you adding?

A: Mostly smaller round gravel from 1/2 inch to 1 inch in size, with some larger 1-2 inch gravel mixed in.

5. Q: Where did the gravel come from?

A: Gravel was donated by Sunroc and came from a quarry downstream less than a mile away.

6. Q: Won't this gravel just wash away in the spring?

A: Some gravel will migrate downstream every year, depending on river flows. The side channel gets much less water velocity so we expect the gravel will stay for at least 5 years after which we plan to refresh it, if needed.

7. Q: Does Idaho Fish and Game know you are doing this?

A: Yes, IDFG are very supportive of side channel improvements like this. They reviewed our plans and recommended optimal locations for the gravel.

8. Q: How many times have you done this?

A: This is BVFF's first gravel augmentation. If all goes well, BVFF hopes to continue to do trout habitat improvement and protections like this.

9. Q: How do you know if this will work?

A: Gravel augmentation has been shown to help trout, steelhead and salmon populations in rivers that have lost spawning-size gravels. Our local Trout Unlimited project has done several gravel augmentations on upstream

sections of the Boise river with good results. BVFF plans to monitor the side channel for trout spawning and review IDF&G's trout-fry survey results.

10. Q: When do trout spawn?

A: Rainbow trout spawn in the spring, typically April and May. Brown trout spawn in the Fall, typically late-October thru November.

11. Q: How long do the eggs take to hatch?

A: Incubation time depends on water temperature. Rainbow trout eggs will hatch in 4 to 7 weeks, but brown trout eggs take longer because they are in colder water. During this time it is important for anglers to avoid walking through the redd-areas. (Images courtesy of FishPond and the Wild Trout Trust.)



## **BROWN TROUT LIFECYCLE**



### **Spawning**

Occurs October thru December in riffles with gravel.



### **Eggs**

Hatch into alevins December to February



### **Alevins**

Stay in the gravel thru March

## THANKS



We would like to recognize and thank all of those who contributed to this project. Thanks to:

- Our local chapter of Trout Unlimited for sharing their knowledge of how to do gravel augmentation;
- BioAnalysts who helped us evaluate the side channel for viability and target improvement areas;
- Idaho Fish and Game who helped us choose optimal areas for gravel augmentation;
- Sunroc who donated gravel for the project;
- Boise Flood District 10 who moved the bulk of the gravel to the river and helped improve the large woody debris in the side channel to improve habitat for trout fry;
- Fly Fishers International for their grant to put a trout habitat educational sign at the project site;
- BVFF for sponsoring the project and BVFF volunteers for their help distributing gravel in the side channel;