What is a Watershed Council?

Watershed Councils are local, volunteer groups established to improve the condition of watersheds in their area. Oregon legislation authorized the creation of non-regulatory watershed councils. They offer local residents the opportunity to evaluate watershed conditions and identify cost-effective and acceptable opportunities for improvement. Watershed councils help residents, local, state and federal agency staff and other groups implement scientifically informed restoration and education activities.

WWBWC Mission

The mission of the Walla Walla Basin Watershed Council is to protect the resources of the Walla Walla Watershed, deal with issues in advance of resource degradation and enhance the overall health of the water-shed, while also protecting as far as possible the welfare, customs, and cultures of the citizens residing in the basin.

For more information please visit our website:

www.wwbwc.org

and friend us on our Facebook page:

Walla Walla Basin Watershed Council

There are two separate projects currently being constructed in the Walla Walla River directly below Nursery Bridge to repair and improve the Milton-Freewater flood protection levee system. The original flood protection levee and the concrete drop structure were designed and built by the US Army Corps of Engineers (USACE) in the 1940s, and then rebuilt in 1968 after damage from the 1964-1965 floods. Severe erosion of the riverbed (known as a headcut) downstream of Nursery Bridge over the last 10-15 years has created the need to repair the levee system. The Walla Walla River has eroded vertically within this leveed portion of the river downstream of the existing Nursery Bridge Grade Control Structure. This Structure is a full-river-spanning concrete grade control structure flanked on both banks by concrete fish ladders.

One project, the Milton-Freewater Water Control District’s Nursery Bridge Vicinity Right Bank (Levee) Repair Project (Levee Repair Project), is improving 2900 linear feet of the Eastside levee downstream of the Eastside fish ladder by extending the large boulder (rip-rap) surface of around 15-20 feet. This work has been ongoing over the last month, and will continue until the end of September.

A separate project that started in August is designed by the USACE to protect the concrete drop structure from being undermined by erosion. This project, the Milton-Freewater Nursery Bridge Drop Structure Emergency Repair/Rehab Project, entails the construction of wire mesh gabion baskets filled with rock and then encased in concrete that will be placed immediately downstream of the existing flat concrete stilling basin and end sill. There will also be the placement of large riprap boulders downstream of the gabions for a length of 10 feet. A final component of the project will be attaching steel plating to protect the drop structure vertical face and a portion of the stilling basin from erosion.

A third project currently going through finalization of designs and permitting is the Nursery Bridge Fish Passage and Channel Stabilization Temporary Emergency Phase 1 Project to remedy fish passage problems...
that have occurred due to the downward erosion of the river. The headcut has eroded the riverbed upstream several thousand feet up to the Grade Control Structure and the vertical drop in the river bottom near the eastside fish ladder and is making upstream passage for adult Steelhead, Chinook salmon, rainbow trout, and bull trout difficult. The proposed fish passage Project is intended to improve upstream fish passage and stabilize the river bed throughout the incised/headcut reach downstream of the Structure in two phases.

Phase 1 is intended to be a temporary, emergency measure that will stabilize the riverbed and provide upstream fish passage with the limited funding currently available. The timing of the Phase 1 construction is scheduled to coincide with two other related projects along this reach during September and October. Constructing these three projects during the same season enables related features to better accommodate one another. Additionally, it will reduce overall project costs and minimize disturbance to the river and fishery.

The concept for Phase 1 involves constructing an engineered roughened riffle at a 2 percent gradient from the eastside fish ladder and the USACE’s Repair Project downstream approximately 500 feet. The roughened riffle will be composed of a mixture of boulders, cobbles, gravels and fines and will back water into the eastside fish ladder. The roughened riffle will have a low flow channel to enable upstream fish passage during extreme low flows, a “bankfull” channel to convey relatively frequent bankfull discharges and a floodplain to convey larger flood discharges. The proposed roughened riffle will extend from the west side levee toe to the east side levee toe.

Phase 2 will be longer, more permanent, and is intended to be constructed in 2015. Phase 2 involves extending the Phase 1 roughened riffle further downstream for a total length of approximately 4,000 feet at gradients that range from 1.3 percent to 1.1 percent. Unlike the roughened riffle in Phase 1, the floodplain area of the Phase 2 riffle will be vegetated with trees, shrubs and grasses to provide added stability and to enhance instream and riparian habitat.

This two-phase approach is viewed by the project proponents as the most practical approach to achieve upstream fish passage and river stability in both the short and long terms within the constraints of funding.
The Truth About Healthy Streams?

1) True or false, in 2004, the U.S. Environmental Protection Agency reported to Congress that 25% of the streams in the United States were not clean enough for fishing or swimming?

2) True or false, studies by the American Fisheries Society show that 37% of the native freshwater fish species in North America are at risk of extinction?

3) True of false, healthy streams are characterized by habitat diversity, channels that meander, flow apart and come back together, and an abundance of logs, boulders, pools, and undercut banks?

4) True of false, most stream systems can be restored by changing whatever land use was causing degradation?

5) True of false, in order to maintain a healthy stream, it is important to remove tangled roots and tree limbs?

6) True or false, diverting water away from a stream does not affect the health of that stream?

Hey Water Skippers

Did you know that studies by the American Fisheries Society show that 37% of native fish species, 36% of amphibians, and 69% of freshwater mussels in North America are threatened with extinction?

Remember, that by educating yourself about your environment, you can better protect it.

Together we can protect our watershed.

Answer Key

1) False, U.S. Environmental Protection Agency reported that 44% of the streams in the U.S. were not clean enough for fishing.

2) True

3) True

4) True

5) False, a stream in top condition will have clean, flowing water, but it will also contain tangled roots and tree limbs which provide habitat for insects, fish, and amphibians.

6) False, diverting water from a stream usually leads to the loss of native fish and amphibians which are characteristic of a healthy stream.
The third annual Hydromania summer science camp, sponsored by the WWBWC and the Milton-Freewater Unified School District, gave seventeen students from the Milton-Freewater area three days of learning activities, from the head waters of Couse Creek in the Blue Mountains to McNary Dam on the Columbia River.

The WWBWC lead nine campers from the YMCA Leadership Camp on activities that improved their understanding of Salmon and Steelhead. A hike up the South Fork of the Walla Walla River provided an opportunity to discuss ecosystem interactions and habitat requirements for these fish. Campers also got to see adult salmon at the holding facility on the South Fork Walla Walla River.

The three-day Hydromania camp provided participants with a wide variety of interactive experiences. The campers spent some time at Central School gaining background knowledge, interacting with ground water and surface water models (pictured above right), creating their fish-print t-shirts, and making underwater viewing tubes. Field lessons included touring an irrigation diversion on the Walla Walla River, and visiting Davis Orchards (pictured left, second from top) to hear how irrigators are improving efficiency in order to leave more water in the river and sustain the local economy. The day spent in the mountains was a favorite for many of the campers. Stream monitoring, plant identification, water testing, a US Forest Service presentation given by Jimmye Turner (pictured left, second from bottom), and a hike (pictured left, top) searching for biodiversity kept students busy. A visit to McNary Dam (pictured left, bottom) on the third day provided input for the need of dams and how they work to ensure fish make it to their spawning waters.

The Walla Walla Basin Watershed Council (WWBWC) provided area youth with two fun and educational summer camp experiences in and along the basins waterways. Lessons focused on the importance of water to all life and its value as a natural resource. Presentations, games, diverse hands-on field experiences, restoration site visits, and some free time to explore natural areas gave these campers a better appreciation and understanding of water and the ecosystem it supports.

The WWBWC lead nine campers from the YMCA Leadership Camp on activities that improved their understanding of Salmon and Steelhead. A hike up the South Fork of the Walla Walla River provided an opportunity to discuss ecosystem interactions and habitat requirements for these fish. Campers also got to see adult salmon at the holding facility on the South Fork Walla Walla River.
The third annual Hydromania summer science camp, sponsored by the WWBWC and the Milton-Freewater Unified School District, gave seventeen students from the Milton-Freewater area three days of learning activities, from the head waters of Couse Creek in the Blue Mountains to McNary Dam on the Columbia River.

The WWBWC lead nine campers from the YMCA Leadership Camp on activities that improved their understanding of Salmon and Steelhead. A hike up the South Fork of the Walla Walla River provided an opportunity to discuss ecosystem interactions and habitat requirements for these fish. Campers also got to see adult salmon at the holding facility on the South Fork Walla Walla River.

The three-day Hydromania camp provided participants with a wide variety of interactive experiences. The campers spent some time at Central School gaining background knowledge, interacting with ground water and surface water models (pictured above right), creating their fish-print t-shirts, and making underwater viewing tubes. Field lessons included touring an irrigation diversion on the Walla Walla River, and visiting Davis Orchards (pictured left, second from top) to hear how irrigators are improving efficiency in order to leave more water in the river and sustain the local economy. The day spent in the mountains was a favorite for many of the campers. Stream monitoring, plant identification, water testing, a US Forest Service presentation given by Jimmye Turner (pictured left, second from bottom), and a hike (pictured left, top) searching for biodiversity kept students busy. A visit to McNary Dam (pictured left, bottom) on the third day provided input for the need of dams and how they work to ensure fish make it to their spawning waters.

Hydromania was made possible by grants from the Gray Family Foundation and the Oregon Watershed Enhancement Board (OWEB).
In 2005 the Walla Walla Basin Watershed Council (WWBWC) began a partnership with the Oregon Department of Environmental Quality to implement the Pesticide Stewardship Partnership (PSP) in the Walla Walla River Basin. This program works to identify potential problems and improve water quality associated with pesticide use in Oregon. The PSP uses local organizations with expertise in water quality sampling, like WWBWC, to work with area agriculture to encourage voluntary changes in pesticide use and implement best management practices (BMPs). These changes have lead to significant measurable water quality improvements in the Walla Walla Basin. So much is the case, that recently the U.S. Environmental Protection Agency Region 10 acknowledged the Oregon PSP program for their progress and highlighted the Walla Walla PSP as a “Best Practice” in the EPA 2010 National Water Program Best Practices and End of Year Performance Report (http://water.epa.gov/resource_performance/upload/FY2010_EOY_full_report.pdf).

The success of the PSP in the Walla Walla valley is an excellent example of voluntary efforts built on the collaboration of governmental agencies, local organizations, and our local agriculture to improve environmental issues within our watershed. The WWBWC would like to thank the many pesticide users who have volunteered for this program and worked hard to lower the presence of pesticides and made the Walla Walla Basin a model for other watersheds.

**The Truth About Healthy Streams?**

1) True or false, in 2004, the U.S. Environmental Protection Agency reported to Congress that 25% of the streams in the United States were not clean enough for fishing or swimming?

2) True or false, studies by the American Fisheries Society show that 37% of the native freshwater fish species in North America are at risk of extinction?

3) True of false, healthy streams are characterized by habitat diversity, channels that meander, flow apart and come back together, and an abundance of logs, boulders, pools, and undercut banks?

4) True of false, most stream systems can be restored by changing whatever land use was causing degradation?

5) True of false, in order to maintain a healthy stream, it is important to remove tangled roots and tree limbs?

6) True or false, diverting water away from a stream does not affect the health of that stream?

**Hey Water Skippers**

Did you know that studies by the American Fisheries Society show that 37% of native fish species, 36% of amphibians, and 69% of freshwater mussels in North America are threatened with extinction?

Remember, that by educating yourself about your environment, you can better protect it.

Together we can protect our watershed.

**Answer Key**

1) False, U.S. Environmental Protection Agency reported that 44% of the streams in the U.S. were not clean enough for fishing and swimming.

2) True

3) True

4) True

5) False, a stream in top condition will have clean, flowing water, but it will also contain tangled roots and tree limbs which provide habitat for insects, fish, and amphibians.

6) False, diverting water away from a stream does not affect the health of that stream.
that have occurred due to the downward erosion of the river. The headcut has eroded the riverbed upstream several thousand feet up to the Grade Control Structure and the vertical drop in the river bottom near the eastside fish ladder and is making upstream passage for adult Steelhead, Chinook salmon, rainbow trout, and bull trout difficult. The proposed fish passage Project is intended to improve upstream fish passage and stabilize the river bed throughout the incised/headcut reach downstream of the Structure in two phases.

Phase 1 is intended to be a temporary, emergency measure that will stabilize the riverbed and provide upstream fish passage with the limited funding currently available. The timing of the Phase 1 construction is scheduled to coincide with two other related projects along this reach during September and October. Constructing these three projects during the same season enables related features to better accommodate one another. Additionally, it will reduce overall project costs and minimize disturbance to the river and fishery.

The concept for Phase 1 involves constructing an engineered roughened riffle at a 2 percent gradient from the eastside fish ladder and the USACE’s Repair Project downstream approximately 500 feet. The roughened riffle will be composed of a mixture of boulders, cobbles, gravels and fines and will back water into the eastside fish ladder. The roughened riffle will have a low flow channel to enable upstream fish passage during extreme low flows, a “bankfull” channel to convey relatively frequent bankfull discharges and a floodplain to convey larger flood discharges. The proposed roughened riffle will extend from the west side levee toe to the east side levee toe.

Phase 2 will be longer, more permanent, and is intended to be constructed in 2015. Phase 2 involves extending the Phase 1 roughened riffle further downstream for a total length of approximately 4,000 feet at gradients that range from 1.3 percent to 1.1 percent. Unlike the roughened riffle in Phase 1, the floodplain area of the Phase 2 riffle will be vegetated with trees, shrubs and grasses to provide added stability and to enhance instream and riparian habitat.

This two-phase approach is viewed by the project proponents as the most practical approach to achieve upstream fish passage and river stability in both the short and long terms within the constraints of funding.
What is a Watershed Council?

Watershed Councils are local, volunteer groups established to improve the condition of watersheds in their area. Oregon legislation authorized the creation of non-regulatory watershed councils. They offer local residents the opportunity to evaluate watershed conditions and identify cost-effective and acceptable opportunities for improvement. Watershed councils help residents, local, state, and federal agency staff and other groups implement scientifically informed restoration and education activities.

WWBWC Mission

The mission of the Walla Walla Basin Watershed Council is to protect the resources of the Walla Walla Watershed, deal with issues in advance of resource degradation and enhance the overall health of the watershed, while also protecting as far as possible the welfare, customs, and cultures of the citizens residing in the basin.

For more information please visit our website:

www.wwbwc.org

________________________________________________________________________________________

WWBWC is a 501(c)3 non-profit organization. Donations are welcome to support our efforts and are tax deductible as allowed by law.

There are two separate projects currently being constructed in the Walla Walla River directly below Nursery Bridge to repair and improve the Milton-Freewater flood protection levee system. The original flood protection levee and the concrete drop structure were designed and built by the US Army Corps of Engineers (USACE) in the 1940s, and then rebuilt in 1968 after damage from the 1964-1965 floods. Severe erosion of the riverbed (known as a headcut) downstream of Nursery Bridge over the last 10-15 years has created the need to repair the levee system. The Walla Walla River has eroded vertically within this leveed portion of the river downstream of the existing Nursery Bridge Grade Control Structure. This Structure is a full-river-spanning concrete grade control structure flanked on both banks by concrete fish ladders.

One project, the Milton-Freewater Water Control District’s Nursery Bridge Vicinity Right Bank (Levee) Repair Project (Levee Repair Project), is improving 2000 linear feet of the Eastside levee downstream of the Eastside fish ladder by extending the large boulder (rip-rap) surface of around 15-20 feet. This work has been ongoing over the last month, and will continue until the end of September.

A separate project that started in August is designed by the USACE to protect the concrete drop structure from being undermined by erosion. This project, the Milton-Freewater Nursery Bridge Drop Structure Emergency Repair/Rehab Project, entails the construction of wire mesh gabion baskets filled with rock and then encased in concrete that will be placed immediately downstream of the existing flat concrete stilling basin and end sill. There will also be the placement of large riprap boulders downstream of the gabions for a length of 10 feet. A final component of the project will be attaching steel plating to protect the drop structure vertical face and a portion of the stilling basin from erosion.

A third project currently going through finalization of designs and permitting is the Nursery Bridge Fish Passage and Channel Stabilization Temporary Emergency Phase 1 Project to remedy fish passage problems.