From the Director’s Corner

I hope you are enjoying the summer and are getting outdoors. The late rains this year helped with stream flows for fish movement and irrigation water for farming—now the heat is on. Fish run totals have been compiled for this year, with 837 steelhead adults and 397 Chinook salmon adults counted as they passed through the Milton-Freewater reach of the Walla Walla River. Additional steelhead and salmon were counted accessing upper Mill Creek and the Touchet River.

Conditions in the Walla Walla River are continuing to benefit from the work of the Walla Walla Basin Watershed Council and our watershed restoration partners also working in the valley. Projects are continuing to be planned, designed and constructed for fish passage, fish habitat, water use efficiency, and groundwater level recovery. In addition, we are collecting and sharing hydrology data, and providing science education. Check out our website www.wwbwc.org to learn more.

We have completed some staffing changes at the WWBWC. Hydrologist Rick Henry resigned from his position in July. He and his family have moved back to Pennsylvania to be closer to relatives. Filling the senior scientist position is Steven Patten, former WWBWC Environmental Scientist. Steven has been a vital part of the WWBWC team for over three years and is well versed in the workings of the Walla Walla River Basin and the WWBWC mission.

With Steven’s promotion to Senior Environmental Scientist, Lyndsi Hersey has been hired as the new Environmental Scientist to take over the duties previously fulfilled by Steven. Lyndsi received her Master of Science in Biology in March 2012. She has already proven herself to be a great addition to the team.

Following Hydromania 2012, Graham Banks took over the STELLAR program as WWBWC said goodbye to Bob Chicken who retired. Graham worked alongside Bob during Hydromania and is already proving himself to be a favorite with the STELLAR program’s youth.

Even with all the changes, the WWBWC staff continues moving forward with work to restore watershed conditions based on local knowledge and science. With all of the projects underway and getting started, it promises to be a busy fall and winter.
Get to Know Caldwell Creek, Walla Walla

By Judith Johnson—Kooskooskie Commons

Caldwell Creek emerges from springs in the area of south Wilbur Street in Walla Walla and flows west southwest for about a mile eventually flowing into Yellowstone Creek. Jon and Mary Campbell's property is bordered on the north by Yellowstone Creek and on the south by Caldwell Creek. Before restoration was begun, Yellowstone Creek was characterized by a single line of black locust trees with an understory largely composed of Himalayan blackberries and reed canary grass in a narrow strip. Caldwell Creek lacked the locust over story but streamside and in stream vegetation was, like Yellowstone, largely invasive non-native species. The Campbells' stretch of both Yellowstone and Caldwell Creeks were characteristic of their status throughout the system.

The Campbells began restoration in November of 2005 by tearing out the blackberry bushes on both Caldwell Creek and Yellowstone Creek. The buffers were planted in the early spring of 2006, including 1700 shrubs and trees. In the subsequent three years the Campbells planted 1300 more plants/trees, approximately two acres total. The total stream frontage, which includes both sides of Yellowstone Creek and the north side of Caldwell Creek that has been restored, is about 2,470 feet. (This number actually includes 50 feet on the south side of Caldwell Creek that belongs to a neighbor, restored with his approval.)

Shortly after restoration began a wind storm blew down over twenty of the black locust trees that lined Yellowstone Creek, essentially removing the over story shade. Weed control in the areas not covered by mulch cloth (that eventually decomposes) has been a constant battle to keep the blackberries from re emerging and consuming the new plantings. The Campbells found most effective method for discouraging reproduction of blackberries is to employ people to hand clip emerging spring blackberry shoots and apply a root killing compound. Tarps to keep out sunlight has also been effective for both reed canary grass and blackberries. In the spring of 2016 the Campbells will experiment with the effects of removing the tarps in some areas and seeding with native grasses.

Jon and Mary have observed increases in native and migratory water birds, hawks and passersines in the thriving native vegetation. They enjoy the beauty of the blossoms of wild roses, mock orange and other native shrubs in the spring and the production of red rose hips and waxy white snowberries attract deer and other wildlife in the fall.

LEFT: 2005—Before blackberry removal
RIGHT: 2009—After planting (3 years of growth)
This June, Walla Walla Basin Watershed Council, in conjunction with the Milton-Freewater Unified School District and the City of Milton-Freewater, developed and sponsored Hydromania 2012, a three-day outdoor camp that ran June 12-14. More than 25 students and the camp’s five staff members were treated to a fun way to learn about the many roles that water plays in our basin.

Youth participated in daily field trips and hydrologic presentations from nine guest presenters, that gave students a broad understanding of this ever-more-important resource. One trip was a visit to a river and riparian restoration project at the Lampson property along the Walla Walla River south of Milton-Freewater. The Lampson visit provided the perfect opportunity for the students to see how continued restoration efforts provide for fish success and improved wildlife habitat. The kids got more hands-on science education in the Walla Walla River where they did activities that included riparian assessment, water testing and a macro-invertebrate survey. In addition, the kids got to see multiple elements of the city of Milton-Freewater’s municipal water system, including well head production, wastewater treatment plant, and the city farm where the waste water is used to irrigate crops.

The students learned about measures taken to improve natural habitat in river ecosystems while still protecting the welfare of the local citizens. They learned about conservation and management techniques to preserve water resources while still sustaining our local economy. A tour and presentation in the fish ladder viewing room at Nursery Bridge gave the participants insight into the work the Confederated Umatilla Tribes is doing to monitor fish populations in the Walla Walla River. A bus ride to Wallowa Gap provided the opportunity for a geological hike to the Twin Sisters formation and a chance to do scientific analysis at the mouth of the Walla Walla River. The experience was rounded out with educational crafts and games that enforced the students’ “field” learning.
UPCOMING EVENTS:

August 2012:
Aug 17-19  WWBWC Booth—Muddy Frogwater Festival
Aug 20   WWBWC Board Meeting—7:00pm

September 2012:
Sept 17    WWBWC Board Meeting—7:00pm

October 2012:
Oct 2    Philanthropy Northwest Conference—2:45pm
         WWCC Water & Environmental Center
Oct 15   WWBWC Board Meeting—7:00pm

For more information regarding projects in this newsletter and other activities that the Watershed Council participates in please give us a call, stop by or visit our website:

www.wwbwc.org

Walla Walla Basin Watershed Council

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Hey Water Skippers here are 5 Fun Facts You Should Know About Water

Water is made up of two elements, hydrogen and oxygen. Each molecule of water has 2 hydrogen atoms bonded to a single oxygen atom—hence its chemical formula H₂O.

Water can move up narrow tubes against the force of gravity in what is known as capillary action. Go to this Science Kids website for an experiment that will show you capillary action at work [www.sciencekids.co.nz/experiments/escapingwater.html](http://www.sciencekids.co.nz/experiments/escapingwater.html). Remember, only visit websites and perform experiments with your parents permission.

Pure water has no smell and no taste; it also has a pH level around 7.

While most people know that water boils at 100°C (212°F), this is at normal conditions of sea level. The boiling point of water actually changes relative to the barometric pressure. For example, water boils at just 68°C (154°F) on the top of Mount Everest while water deep in the ocean near geothermal vents can remain in liquid form at temperatures much higher than 100°C (212°F).

Water covers around 70% of the Earth’s surface, but only approximately 1% of that is drinkable. This is important to know because the existence of water is essential for life on Earth. Our bodies need it to avoid dehydration; we need water to grow our crops, firefighters need it to put out fires, and we even need it for fun things like swimming and other water sports, so please remember to take care and conserve our water.