An anxious homeowner, eyeing the 23’ sheet pile structure used during construction, called me one night in June during the installation of an oil and grit separator (OGS) on Eyak Lake. We call the lake our “Million Dollar Lake” because of the number of sockeye and coho salmon that spawn there and contribute to Cordova’s commercial fishery.

All the stormwater from one of Cordova’s biggest sub-divisions, over 100 acres, drains into Eyak Lake. This surface run-off picks up automobile fluids, animal waste, sediment, and heavy metals every time it rains.

Run-off sediments, created from eroded topsoil and sand, affect fish in all life cycle phases. Excessive sediment can smother incubating eggs. Rearing habitat is compromised because aquatic insects cannot live in the silty water, reducing the food supply for juvenile salmon. The run-off sediment clogs juvenile fish gills and can irritate fish scales, leading to infection and disease.

The CRWP also detected polycyclic aromatic hydrocarbons (PAH) in run-off through use of passive sampling devices in 2005 – 2006. Lab results showed that “PAH composition patterns [in the lake] were heavily petrogenic, indicating that uncombusted oil such as spills or urban run-off was the source” (NOAA, 2006).

Sediment and petroleum pollutants are washed into the City’s storm drain system, which discharges the storm water – unfiltered – directly into Eyak Lake.

But not any more.

With funds from NOAA’s Habitat Restoration Center from the American Recovery and Reinvestment Act, we purchased an oil and grit separator for filtering stormwater draining into Eyak Lake. The unit is a giant chamber of cast concrete, 16 feet high by 14 feet wide, buried underground. Stormwater entering the unit’s main chamber swirls around, allowing sediment to settle out on the bottom. A weir in the upper cylinder forces water from the middle of the water column out of the chamber into the lake. Since hydrocarbons are lighter than water, they rise to the top in the main chamber. During a storm, the water that drains into the lake is forced out of the chamber from the middle of the water column. After the storm, what’s left in the vault settles to the bottom. The City of Cordova will vacuum the chamber empty several times a year.

If you drive by Eyak Lake, look for the oil and grit separator next to Nirvana Park. You’ll see new grass carpeting the construction site, two manhole covers next to Lake Avenue, and a lot of clean water flowing into Eyak Lake.
The question I hear most often about the Copper River, from funders, visitors and friends, is “WHAT ARE THE MAIN THREATS TO THE COPPER RIVER?”

If I have to sum it up in one phrase, my answer is “FRAGMENTED RESOURCE MANAGEMENT.”

The Copper River is described by those who raft it as world-class wilderness. And it is! The high bluffs through the Copper River basin are the rim of ancient Lake Atna, and you can see bison grazing along their shoulders. Farther down, the river cuts a canyon through the Chugach Mountains and all the water from the Copper River’s dozens of tributaries and the Chitina River is forced through Woods and Baird Canyons. You almost always see bear tracks at campsites along the river. They’re after the same fish that subsistence fish wheel users, dip netters, and commercial fishermen are trying to catch.

But is this watershed pristine, public, and protected, as so many seem to think? It seems more like swiss cheese to me.

Throughout the 26,500 square miles of the drainage, there are two regional native corporation land owners, six tribal councils, five federal land and resource managers, and three state agencies involved in resource management.

As an example of how the layers interact, when the CRWP works on marshalling resources to replace a culvert to restore fish passage, we talk to the Alaska Department of Transportation & Public Facilities and the land owner first. Depending on the site conditions, we may also need to consult with neighbors – a tribal council and/or private land owners, and possibly a utility cooperative. Then we consult with the permit agencies: Alaska Department of Fish & Game, U.S. Fish & Wildlife Service, and the Army Corps of Engineers.

And that’s the crux of the issue. Fish and wildlife are managed by state and federal agencies, land and some waterbodies by other state agencies, roads and the culverts and bridges that cross those waterbodies by another entity.

How do you integrate all those decision-making factors? By thinking, and planning, on a watershed scale.

Our job is to push decision makers throughout the region to take fish habitat into account, to consider the cumulative impacts of development on the fish productivity of the entire watershed. We know that diversity is critical in biological systems, and that nicks in the region’s habitat integrity here and there add up to losses system-wide over time.

Your support is what keeps us working at this level, working at a watershed scale. It’s critical for the Copper River watershed, and for coastal communities that depend on wild Alaska salmon everywhere.

Take a look at the newsletter and website to see how we’re doing this through our campaign for citizen oversight of the Trans-Alaska Pipeline, watershed education for youth, efforts to support the growth of a local tourism industry, and fish habitat restoration projects this year.

Thank you, always, for keeping us going,

Kristen Carpenter

RAFTING THE COPPER RIVER IN AUGUST, 2009
PHOTO BY ANNIE HOAG
BY KATE ALEXANDER

Building a watershed community has been a major goal of Copper River Watershed Project’s education efforts. We continue to work with diverse partners to connect students throughout the region. Read on for a taste of what’s we’ve been up to, and visit www.copperriver.org to virtually visit our wayside signs, view students projects, and learn more about these programs!

- We have set up a tank for raising salmon in Cordova’s Mt. Eccles Elementary School. We will facilitate Skype exchanges between 2nd-5th graders in Cordova, Kenny Lake, Yakutat and Valdez, AK to share weather data collected by students and salmon tank observations. Watch as our salmon grow by visiting our education pages on our website or following us on Facebook (Facebook.comCopperRiver).

- In June, 2011, five Cordovans joined five upriver high school students on the Copper River Stewardship Program. Experience their journey through the watershed from Kennecott Mines to the Copper River Delta by watching their trip video on our “Tour our Watershed” interactive map.

- Cordova’s 7th grade class has initiated another year-round study of Odiak Pond. Their data will help track changes over time as CRWP works to improve water quality in the pond and stream. Students will connect regularly with their peers in Kenny Lake who will be monitoring Willow Creek, a small stream by their school that eventually drains into the Copper River.

- This fall, CRWP scholarships are supporting three recent graduates as they start their first year of college. Congratulations to co-recipients from Cordova: Jessica Smyke, at Fort Lewis College in Durango, CO, and Shannon Lindow at University of Colorado in Boulder, CO. Congratulations to our upriver recipient from Kenny Lake, Ellie Bowman, who is attending University of Alaska Fairbanks.

Don’t forget to visit www.copperriver.org/programs/watershed-education to learn more about these programs and see our list of project partners and sponsors!
Grayling in Little Tulsona Creek will have a much easier time migrating upstream of the Tok Cut-off. In September, 2011, with funding from Alaska Department of Fish & Game, three old culverts were removed from the old highway roadbed in order to restore the natural hydrology of the area and improve passage for fish and wildlife.

CRWP staff came across these problem culverts while in the field collecting fish habitat data during the summer of 2009. The culverts had been left in place when the Tok Cut-off was re-routed, and time had taken its toll on their condition. The culverts were old and partly crushed, affecting the natural hydrology of the area and fish passage between Little Tulsona Creek and the upstream pond system, a known grayling system.

With support and expertise from the United States Fish & Wildlife Service, Alaska Department of Fish & Game, and the Cheesh'na Tribal Council, Copper River Watershed Project was able to hire a contractor to remove the culverts and establish a low water ford with an armored bottom to support ATV crossings by hungry grayling fishermen. The streambanks were also re-vegetated in order to stabilize the re-established banks.

This project demonstrates the importance of having eyes in the field to identify such issues, and given the size of our watershed, we need your help! Please let us know of any issues or observations you have in your area that we might be able to help with. We want to work with you to help keep the water clean and fish running freely in the Copper River watershed.

We are excited to share our newly completed Culvert Mapping Tool, developed in cooperation with the U.S. Fish & Wildlife Service, Alaska Department of Fish & Game, Alaska Department of Transportation & Public Facilities, and Ecotrust. This mapping tool displays site photos, fish habitat and culvert data. It also includes objective “ecological” and “culvert condition” scores that we developed in order to help identify high priority fish passage improvement projects that make the best use of limited resources and have the greatest benefit to fish and the stream system. Visit our “Fish Habitat Restoration” link under “Programs” on our website to learn more about this effort and to link to the mapping tool.
When we asked Claudia Hartley, CRWP’s 2011 summer intern, to help with a community campaign on reducing stormwater, she hit on the idea of conducting a “scoop the poop” campaign. It’s not a sexy issue – just the opposite – but she chose it because:

- water quality ranked as the top concern of Cordova residents in a survey conducted by the Native Village of Eyak’s (NVE) CARE (Community Action for a Renewed Environment) program;
- Dog poop has a very real and negative effect on water quality; and
- Compared to other non-point water pollution sources, dog poop is a relatively straight-forward problem to fix: scoop it!

Claudia and Simeone Haynes, NVE summer intern, surveyed several neighborhood routes at the beginning of the summer and again at the end of the summer, after we worked to raise awareness about the need to clean up pets’ sewage on our town sidewalks and streets. She reported that the total poop counts went from 187 at the beginning of summer down to 127 at the end, which is a 32% decrease. We can’t necessarily take credit for that, but at the very least, it does mean less poop on Cordova streets and, consequently, in our salmon streams and lakes.

The CRWP and NVE are working to purchase and install biobag dispensers at key locations around Cordova. We hope to make it convenient for pet owners to clean up after their animals. We’ll post the locations on our web site when the dispensers are installed.

Visit www.copperriver.org/programs/scoop-the-poop to learn more about how you can help keep your streets, your shoes and your streams clean!
MINERAL EXPLORATION IN HEADWATERS OF WATERSHED
Ocean Park Ventures, a Canadian-based international mining exploration company, has committed $20 million to exploratory drilling in the Chisna prospect northwest of Slana. Surface and drill samples indicate substantial gold and copper deposits, and further laboratory tests on samples will be performed this fall. This prospect is a copper-gold porphyry formation similar to the Pebble deposit in southwest Alaska. Although this area has historically been subject to extensive placer mining, modern exploration of the site only began in 2006. Some of the prospects are located along tributaries to the Copper River known to be Chinook and sockeye spawning and rearing streams. At present, the corporate joint venture controls over 232,000 acres of State of Alaska Mining Claims and land leased from Ahtna Corporation. More information can be found at Ocean Park Venture’s website: http://oceanparkventures.com/ and Corvus Gold’s website: http://www.corvusgold.com/projects/alaska/chisna/.

REPORT ON WATER QUALITY ALONG MCCARTHY ROAD RELEASED.

COPPER RIVER HIGHWAY CLOSED AT 36 MILE
For the past few years the USGS has been monitoring the flow and channels of the Copper River along the highway from Flag Point (mile 27) to the Million Dollar Bridge. At mile 36, where Bridge 339 is located, the USGS has noted a significant channel shift that has now resulted in most of the flow of the Copper River passing through here. Bridge 339 was not designed to accommodate these high flows and as a result, as much as 50 feet of scour occurred from June through September of this year. Due to the severe scour, several piers cannot adequately support any loads on the bridge, requiring DOT to close the highway at mile 36 until further notice.

PLANT SOME SEEDS WITH NPS
Wrangell-St. Elias National Park and Preserve is developing a program to collect, clean, and revegetate with native seeds in the Copper River Basin. If you would like to be informed of volunteer opportunities or learn more about the program please email annmarie_lain@nps.gov.

HELP KEEP OIL OUT OF THE COPPER RIVER
The threat of a spill from the Trans-Alaska Pipeline System (TAPS) into the Copper River in real. As throughput declines, functions are automated, and the infrastructure ages, the risk increases. Help make sure citizens have a voice at the table through independent citizen’s oversight. Sign on to the petition today to tell Congress to create a Citizen Advisory Council for the Trans-Alaska Pipeline. More information on citizen’s oversight, TAPS, news, and the petition available at www.AKpipelinesafety.org.

RAFTING FOR A GREAT CAUSE
The Copper River Watershed Project is excited to team up with Sundog Expeditions to offer you a life-changing adventure rafting down the Copper River. From June 3-9th, 2012 enjoy breathtaking scenery, discover remnants of the Copper River Railroad clinging to the river banks, and unwind in a true wilderness setting - all while supporting our education and salmon habitat restoration programs! Experienced guides, rafting & camping equipment, and meals included, no experience necessary. Trip price: $2,150, with 20% going to support CRWP! For more information visit www.sundogexpeditions.com or call them at 1-888-455-5977.

FACEBOOK
Don’t forget to “like” us on Facebook in order learn about upcoming events, volunteer opportunities, or receive program updates. We’ll also post updates on the salmon tank in Mt. Eccles Elementary School here! facebook.com/coppermriver

IRON RAILS TO BE RELEASED APRIL 2012
BLM and NPS combined forces to help a Kenny Lake High School history class complete a trilogy of documentary films that have been focused on the history of the Copper River Basin. Now that filming is complete, a team of students will edit and produce the documentary during the 2011-2012 school year. “Iron Rails: The Story of the Construction of the Copper River and Northwestern Railway” will premiere in April 2012 - the 101st anniversary of the railroad’s completion. http://www.hawknews.org/copper-raft-trip.html

AROUND THE WATERSHED
Why I Support CRWP

Howard Baumann, Salem, OR

The CRWP is truly an amazing organization. The Copper River is big and looks very rugged just like Alaska itself, but it is fragile. Mankind is incessantly encroaching on this valuable resource and we need to take responsibility. Among other things, the Trans-Alaska Pipeline imprints itself directly on many of the upper tributaries of the Copper River. We need somebody to protect it!

It is reassuring to me that your Staff is so highly trained and the Board totally committed to its mission. I will continue to support the Copper River Watershed Project. And with my daughter and her family living in Cordova, I sleep much better at night. Thanks for all that you do.

Howard Spending Quality Time with His Grandson, Briggs Fritsch, in Cordova.

Time to Order Your Copper River Watershed Project Gear!

Show your support by sporting one of these fashion forward sweatshirts around town. Nothing says hip like showing awareness for your favorite watershed organization!

Contact Jessyka at jessyka@copperriver.org to place your order.