



Adopt A Stream 2012 *in* Review



Chena River Watershed

Rain to Rivers - Adopt-a-Stream Program Activities for the Fairbanks Storm Water Advisory Committee

The Fairbanks Storm Water Advisory Committee (FSWAC) and Tanana Valley Watershed Association (TVWA) have a Memorandum of Agreement to implement Adopt-a-Stream programs within the cities of Fairbanks and North Pole. The FSWAC contributes annual funding and additional in-kind assistance to the TVWA to support Adopt-a-Stream program efforts. In return, the TVWA implements the program and submits an annual report to the FSWAC outlining tasks accomplished during the past year. Attachment A summarizes Adopt-a-Stream program tasks completed through the TVWA in 2012.

Implementation of the Adopt-a-Stream programs is required by the Alaska Department of Environmental Conservation in accordance with Alaska Pollutant Discharge Elimination System (APDES) Permit No. AKS-053406. The permit is collectively held by the City of Fairbanks, City of North Pole, Alaska Department of Transportation & Public Facilities, and University of Alaska Fairbanks, which also comprise the majority of member agencies of the FSWAC.

The Adopt-a-Stream programs are community-based programs with a variety of volunteer water-quality monitoring and stream restoration activities which provide residents and other stakeholders with the opportunity to actively participate as stewards of their watershed. Elements of the programs include water-quality monitoring, bio-assessment studies, litter pick-up, stream bank restoration and maintenance, and management of flow restrictions. Through

implementation of these programs, the FSWAC and TVWA raise community awareness of water-quality issues, improve local water quality and develop a strong volunteer base by providing members of the community a sense of ownership in local water quality issues.

The TVWA administers the Adopt-a-Stream programs with the support of the FSWAC. The TVWA schedules program activities and maintains a list of stream-section adoptees with the stream sections they are responsible for maintaining. The FSWAC provides program support through annual funding and additional in-kind assistance to the TVWA, as well as hosting an annual Stream Cleanup Day.

Annual reporting requirements include records of program meetings held, number of community members participating in the programs, description of adopted stream sections, and a summary of cleanup efforts performed by adoptees and other volunteers. The measurable goals of the programs are to increase the number/length of stream sections adopted each year and to continue to expand cleanup efforts within the watershed.

13 Locations regularly sampled along the Chena River



Highlights & Resources

Locals lending a hand, learning how to make a difference.

- The FSWAC provided \$9,965 in annual funding to the TVWA in early 2012 in support of program costs.
- Citizen Scientists completed water quality field datasheets each week on write in the rain paper and turned them into staff.
- The TVWA maintained a list of stream section adoptees and the stream sections they were responsible for conducting water quality sampling in 2012. A total of 16 families and individuals signed up to participate in water quality sampling. Of these participants, all completed at least one sampling event during the 2012 sampling season. A total 27 of locations were sampled on waterbodies:



the Chena River (12), Chena slough (2), Goldstream creek (3), Piledriver slough (10). Included in the volunteers was the Salcha Elementary School who were taught by TVWA, different methods of water quality for their appropriate age groups.

- Water quality monitoring equipment was inventoried, cleaned, and serviced before and after the summer sampling season.
- Water quality (temperature, pH, and conductivity) was tested during each sampling event using a Hanna HI 98129 pH/EC/TDS/Temperature meter. Meter calibration was checked each week before and after testing using pH 4, pH10, and 1413µS standard solutions.





**8TH ANNUAL
STREAM CLEANUP DAY**

**Saturday, JUNE 9th
9:00 am to noon**

WHERE **NOYES SLOUGH & CHENA RIVER** – Rain or shine!
Safety Briefing at 9:00 am at Lions Club Park picnic shelter off Danby Road.

WHO **YOU!** Come out and help...on foot or in a canoe! We need volunteers. All cleanup supplies will be provided – trash bags, orange safety vests, gloves, bottled water, snacks, and t-shirts.

Please note that children under 13 must be accompanied by a responsible adult.










For additional information, contact Jackson Fox at 459-6758 or email jcfox@ci.fairbanks.ak.us.

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- The Annual Stream Clean Up Day was held on June 9, with about 40 volunteers in attendance. TVWA also held the first annual Chean Riverwalk, connecting with nature. The event was held to educate youth about water quality and their local watershed. The event had 16 partner agencies involved, with 89 people in attendance.
- To broaden the experience for the citizen scientists, habitat surveys based on the EPA Habitat Walk method were undertaken during the season to record changes in riparian habitat over time.



Tanana Valley Watershed Association Water Quality Field Data Sheet 2012

Name(s): _____ Date (mm/dd/yy): _____

Sampling Location: _____ Time (24 hr): _____

Site Observations

Please check all that apply:			
<input type="checkbox"/> Erosion	<input type="checkbox"/> Birds	<input type="checkbox"/> Aquatic Vegetation	<input type="checkbox"/> Other _____
<input type="checkbox"/> Runoff	<input type="checkbox"/> Animals	<input type="checkbox"/> Aquatic Insects	
<input type="checkbox"/> Odors	<input type="checkbox"/> Beaver Activity		
<input type="checkbox"/> Oil on Surface			
<input type="checkbox"/> Abnormal Water Color			
<input type="checkbox"/> Litter/Debris			
Describe your observations at this site on the back of your data sheet.			
Photos Taken? _____			
Current Weather (check one):			
<input type="checkbox"/> Clear	<input type="checkbox"/> Overcast	<input type="checkbox"/> Rain/Downpour	<input type="checkbox"/> Haze/Fog
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Drizzle	<input type="checkbox"/> Snow	<input type="checkbox"/> Other _____
Recent Weather (last 24 hrs; check one):			
<input type="checkbox"/> Clear	<input type="checkbox"/> Overcast	<input type="checkbox"/> Rain/Downpour	<input type="checkbox"/> Haze/Fog
<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Drizzle	<input type="checkbox"/> Snow	<input type="checkbox"/> Other _____

Water Quality Data

Meter Pre-Check	Field Sampling	Meter Post-Check
pH4 standard _____	pH _____	pH10 standard _____
btn 3.8 & 4.2 Y/N _____	Water Temp. _____	btn 9.8 & 10.2 Y/N _____
1413 standard _____	Conductivity _____	1413 standard _____
btn 1342 and 1484 Y/N _____	Air Temp. _____	btn 1342 & 1484 Y/N _____

Did you observe any invasive plants of concern? Y/N If Y, which one(s)? _____

Data Check Record	
Data Sheet Scanned:	Initial: _____ Date: _____
Data Entry:	_____
Data Verification:	_____

Contact your Field Representative
Or Email: twwatershed@gmail.com
Emergency Contact: Jewelz Nutter 322.2633 cell
Entered online: _____ date | entered by: _____



- Alaska Trappers Association volunteered to help clear a log jam in the Noyes slough that otherwise would have been hard to clear. The Alaska Trappers Association used care when removing the log job to ensure that no riparian damage was done.
- Alaska DEC submits all of the AAS data to EPA's Storage and Retrieval Data Warehouse (STORET) where the information will be joined and preserved with all National Water Information which is accessible by agencies and general public to look up all analytical all analytical details of each sample taken during the 2012 season.
- Bioengineering streambank assessment was conducted along the Chena River by TVWA. A Riparian demonstration for public education was presented by TVWA on September 29th on the Riverwalk behind the Carlson Center, 20 volunteers and partner agencies were involved in the projects.
- Advertisements for the Annual Stream Clean Up Day and Riverwalk Event included: an announcement in TVWA's e-news; an email on the TVWA mailing list; two advertisements in the Fairbanks Daily News Miner; posters to Noyes Slough landowners and former TVWA members; and outreach to the FAYEA, NAEC, UAF Wildlife, RMS, and Kayaking clubs, the Fairbanks Paddlers, Anne Wien and the Watershed School, and Ice Alaska. Outreach via radio talk on 97.0 KFBX AM news radio.
- The TVWA promoted Adopt-A-Stream activities at local events including the FSWCD Natural Resource Showcase, Noyes slough cleanup day and Riverwalk event, upword bound, summer solstice, Downtown Monday markets, farmers market, Salcha Elementary School, outdoor days and UAF watershed management class.

ADOPT A STREAM
FAIRBANKS ALASKA

TRAINING HELD SATURDAY, APRIL 28TH
10:00 AM - REGISTER IN ADVANCE
TVWATERSHED@GMAIL.COM

IN 2007 THE TANANA VALLEY WATERSHED ASSOCIATION (TVWA) CREATED A COMMUNITY-BASED ADOPT-A-STREAM PROGRAM WITH AN ARRAY OF VOLUNTEER MONITORING AND RESTORATION ACTIVITIES. THIS PROVIDES RESIDENTS, LOCAL BUSINESSES AND ORGANIZATIONS WITH THE **OPPORTUNITY TO BECOME ACTIVE STEWARDS OF THE WATERSHED**. VOLUNTEERS CAN TAKE PART IN THE PROGRAM BY SIGNING UP FOR A VARIETY OF ACTIVITIES WHILE TAKING WEEKLY WATER SAMPLES TO MONITOR WATER QUALITY.

A COMMUNITY PARTNERSHIP



- The TVWA provided volunteers with individual water quality monitoring training at the pioneer park pavilion, on April 28th. The training was approximately one hour in length and covered how to use a Hanna meter to measure pH, conductivity, and temperature, useful observations to record, and proper sampling techniques. Volunteers were given information about invasive weed identification and were asked to report their presence along with the water quality monitoring data. The Invasive Weed Handout sheet.

Aquatic and riparian weeds to watch for and report

Waterweed
Elodea spp.
Waterweed is a long-lived underwater plant with trailing stems and green, semi-stemless leaves arranged in whorls of 3 around the stem. Stems are usually branched and can be lighter in color than the leaves. When introduced into a water body, waterweed often forms a dense monoculture. This dense mat reduces habitat for fish and other aquatic species and can alter water flow and other properties, such as decreased dissolved oxygen levels and increased sedimentation. It can also result in impacts to recreation by clogging waterways.

Purple loosestrife
Lythrum salicaria
Purple loosestrife is a perennial that grows from 1 to 8 feet tall. It reproduces through underground stems and seeds. Leaves can be opposite or whorled and the flowers have 5-7 petals each. The easiest way to differentiate it from fireweed is its square stem. Fireweed has a round stem. Purple loosestrife outcompetes native vegetation and takes over wetland environments, decreasing biodiversity, eliminating wildlife habitat, and resulting in ecosystem-wide impacts.

Reed canarygrass
Phalaris arundinacea
Reed canarygrass is a perennial grass. Some key characteristics for ID include a height of 2-6 feet and robust leaves up to 1/2 inch wide. This invasive grass can invade wetlands, river banks, ditches, and wet areas—affecting fish, moose, and wildlife habitat. If introduced to a stream bank, reed canarygrass could alter the flow by constricting the channel and promoting sediment deposition.

European bird cherry
Prunus padus
This deciduous tree can grow over 30 feet tall and is commonly planted around the state. White, aromatic flowers are borne on spikes. The black cherry fruits are highly prized by birds. Bird cherry has been observed moving into riparian areas in Fairbanks and Anchorage, which leads to changes in the plant community composition and alterations to the food web. Studies are currently being conducted on impacts to salmonids in Anchorage.

Ornamental jewelweed
Impatiens glandulifera
Ornamental jewelweed is an annual that grows from 3-6 feet tall. Leaves are opposite, sharply lobed, and approximately 6 inches long. Flowers can be white, pink, purple, or red. Seed pods explode at touch when mature. Impacts include the reduction of native plant populations and wildlife habitat, and altered water flow, which can impact erosion and flooding.

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This project was partially funded by NOAA
Pacific Coastal Salmon Recovery Funds
administered by the Alaska Department of Fish
and Game, Alaska Sustainable Salmon Fund.