



Clean Boating on Big Lake

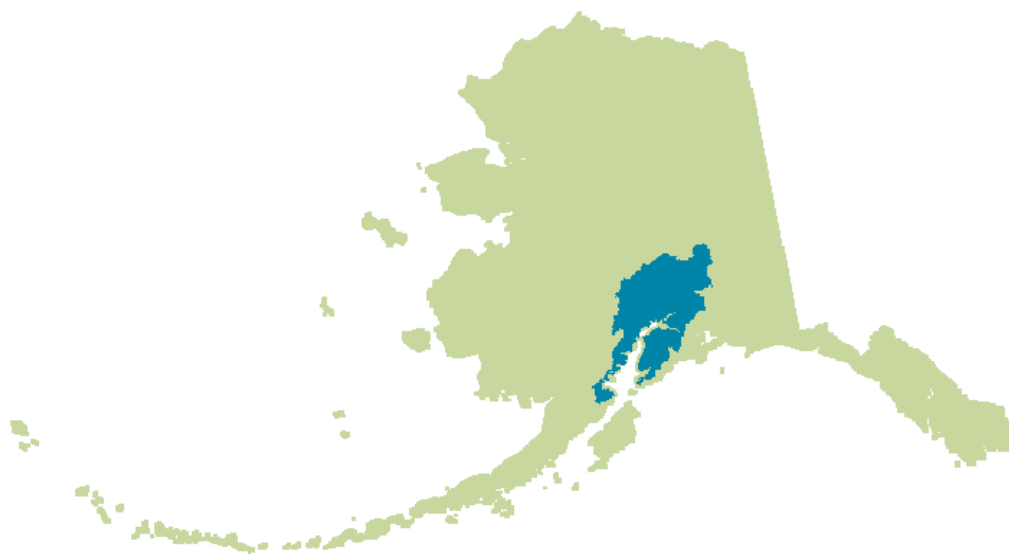
FY 2013 Final Report



Prepared for:

Alaska Department of Environmental Conservation
Alaska Clean Water Action Grant #13-02

July 1, 2012—June 30, 2013



Cook Inletkeeper is a community-based nonprofit organization that combines advocacy, outreach, and science toward its mission to protect Alaska's Cook Inlet watershed and the life it sustains.

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Cover photo: North Recreation Launch Site during a busy summer weekend on Big Lake. Picture by C. Inman

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Additional content provided by Mat-Su Conservation Services, contractor for this project, within the Launch Host Program and Public Outreach & Community Participation sections.

INTRODUCTION

Big Lake is a recreational hotspot in the Mat-Su Valley, and the recreational boating opportunities provide economic growth for the area, resulting in a vibrant community deeply connected to Big Lake and its culture of heavy recreational use. Drivers entering the Big Lake community are greeted by a large map of the area with the headline: “Alaska’s Year-Round Playground”.

The residential community in Big Lake is growing. The 2010 population was 3,350; this represents an increase of over 27% from the 2000 census. Additionally, thousands of visitors come

to the lake, as well as to surrounding waterbodies that offer recreational opportunities.

In 2006, the State of Alaska listed Big Lake as impaired for petroleum hydrocarbon pollution above state water quality standards. The primary source of hydrocarbons (e.g. gasoline) to Big Lake is motorized watercraft—boats and personal use watercraft. Gasoline can come from individual leaks and spills, with additional (and likely larger) inputs from the release of unburned fuel out of the exhaust into the water during combustion. This is especially the case with older 2-stroke engines. Water monitoring results show higher concentrations of hydrocarbons during busy holiday weekends and in certain locations: near marinas, boat launches, and other high traffic areas in the east basin. With this information, this project focuses on these high use areas and targets outreach for high-use holiday weekends.

Starting in 2010, a community Water Quality Workgroup of Big Lake residents and stakeholders developed an Action Plan for reducing hydrocarbon pollution in Big Lake. Among other identified action items, outreach and education is a primary focus. The Big Lake Water Quality Workgroup prioritized ensuring that all motorized watercraft users on Big Lake know and implement basic skills to maintain and run their engines with minimal fuel, oil, and other hazardous materials released into the water. Unfortunately, these skills are often not learned and tend to be overlooked by boaters throughout Alaska. All boaters can use efficient and effective best management practices to dramatically reduce, and in some cases eliminate, harmful discharges. Best management practices can also save money in fuel costs and maintenance.

Boaters on Big Lake can no longer afford to recreate without understanding how they can be



Memorial Day weekend saw beautiful blue skies, but boaters were left waiting for ice out on Big Lake. Photo by C. Inman.

to Big Lake during summer months for boating, fishing, and jet skiing. There are 4 private marinas on Big Lake with over 300 slips for boat moorage. There are public boat launches at two state and one borough-owned public recreation areas, all of which are heavily used for lake access during the summer. Five additional public access points for boats were highlighted in the 2009 Big Lake Comprehensive Plan. Through this Comprehensive Plan, the community of Big Lake laid out a vision to increase visitors and ac-

part of a solution to the pollution problems facing the community. Other regional waterbodies face similar pollution concerns as well, including the Little Susitna River. Looking forward, materials developed through this project are starting to be widely utilized, thereby helping to reduce petroleum-based pollution into our waterbodies, protect human health and fish habitat, and pre-



A map of Big Lake greets visitors at the turn-off to North Shore Drive.

serve recreational opportunities across Alaska.

As an impaired waterbody, Big Lake is vulnerable to increased regulations and a negative public image. Through this project, our overarching objective is to work with the community of Big Lake to identify gaps in clean boating education and resources, and help reduce petroleum pollution in Big Lake and improve water quality.

Cook Inletkeeper began in 1995, and is a 501c(3) non-profit organization with the mission to protect Alaska's Cook Inlet and the life it sustains. Organizational values include protecting water quality, wild salmon, lasting communities and sustainable local economies. Given Big Lake's position within the Cook Inlet watershed, the vibrant local community, and the water resources

at stake, Cook Inletkeeper is able to offer the community of Big Lake assistance to receive grant funds to help meet the goals of water quality education and restoration activities from their Action Plan. Funding for this project came from the Alaska Department of Environmental Conservation's Alaska Clean Water Actions grant program. Through this funding we can work with members of the Big Lake community, as well as Alaskans around Southcentral Alaska who recreate and enjoy Big Lake, on our common long-term goal to improve water quality so that Big Lake meets State water quality standards.

The individual tasks under this project all move towards meeting this long-term goal. Objectives for this specific grant year were to:

- 1) Develop and implement an educational clean boating program, ensuring that boaters have locally available resources and know how to practice clean boating skills with an understanding of the negative impacts of petroleum on human health and fish habitat; and,
- 2) Empower campground hosts and local business owners to encourage 'Clean Boating on Big Lake'.

Work done through this project builds on work that has been done already in Big Lake, including coordination with the State Parks concessionaire at public boat launches and utilization of clean boating materials such as the 'Fuel Out, Fish On' pamphlets and clean boating signage at the boat launches developed by the Alaska Department of Environmental Conservation (ADEC). Tasks within this project help to meet the following action items in the Big Lake Action Plan:

- Develop a clean boat launch campaign (#1);
- Place absorbent pads in bilge; dispose of pads; encourage Big Lake stores to sell bilge

pads (#5).

These efforts build off of work done in 2011-2012 under ACWA Grant #12-02, which also included efforts towards three additional Action Plan items:

- Install good signage (#6);
- Educate marina staff on how they can help implement specific actions (#7); and
- Support and recognize the marinas through the Clean Harbor Program (#8).

The full Action Plan can be seen online at: <http://dec.alaska.gov/water/wnpspc/protection/restoration/biglakewq/index.htm>

The FY12 Clean Boating on Big Lake final report can be found on Cook Inletkeeper's website: <http://inletkeeper.org/resources/contents/clean>



In 2011, Cook Inletkeeper's Rachel Lord attended the Big Lake Community Picnic to give out clean boating kits and talk about clean boating practices with the community. Through these projects, Cook Inletkeeper has enjoyed getting to know Big Lake community members, and hearing about how we can best provide resources as needed to help meet community goals, such as restoring and protecting water quality in Big Lake.

[-boating-on-big-lake-fy12-final-report/view](#)

Cook Inletkeeper, as the grantee for this project, utilized state fiscal year (FY) 13 (July 1, 2012–June 30, 2013) funding from the state of Alaska to hire contractor Mat-Su Conservation Services (MSCS) to oversee the on-the-ground implementation of these goals, including continuation of the Launch Host program and clean boating outreach to the wider regional community of boaters. MSCS hired local Big Lake resident Randi Perlman to assist further in the community with these projects. Included in this final report are summaries of all activities done under this grant project in FY13. Outreach and education efforts will continue again at Big Lake, primarily through the continuation of the Launch Host Program, through FY14 (July 1, 2013–June 30, 2014) under the third year of this state funding. FY14 funding also includes expansion of this work to include similar clean boating outreach for boaters on the Little Susitna River.

LAUNCH HOST PROGRAM

Identified within the Big Lake Water Quality Action Plan, the Launch Host program in Big Lake is intended to educate boaters one-on-one about the importance of clean boating and tools to keep Big Lake clean. Similar programs exist in other states, including a large “Dockwalker” program in California (<http://www.coastal.ca.gov/ccbn/dockwalkers.html>). Trained volunteers are stationed at the public boat launches during busy summer weekends. Throughout the day, they engage with boaters as they launch and load their boats. Through this engagement, volunteers hand out free clean boating kits and ask boaters to fill out a clean boating survey. For this project at Big Lake, clean boating kits include an oil absorbent pillow to be used in the boat’s bilge, an oil absorbent pad, a magnet with clean fueling tips, tip sheets on clean bilges/spill response/clean oil changes, a floating keychain, a Clean Boating on Big Lake sticker, and a tote bag. A blank copy of the FY13 boater survey is included in the Appendix.

Under our previous FY12 grant, MSCS developed training tools for volunteers, tip sheets and talking points to use while doing outreach, and an outreach schedule for the three public boat launches. MSCS and local hire Randi Perlman spent several weeks again in the spring of 2013 outreaching with local community organizations, including the Lions Club, Chamber of Commerce in Big Lake, Palmer, and Wasilla, and the Rotary Clubs of Wasilla, Sunrise, and Susitna. Faith Bible High School Youth Group and the Mat-Su Girl Scout Council Leaders were also included in outreach activities.

Similar to efforts in FY12, finding volunteers proved challenging to cover the public launches during the busy summer weekends. Youth at the campgrounds (particularly at the North Launch,



Top: A clean boating banner welcomes boaters at the North Boat Launch entrance. Bottom: Catherine and local hire Randi Perlman give out clean boating kits and talk about pollution prevention at the North Rec Site. Photos provided by C. Inman

where they assist Concessionaire Holly Peterson) were eager to help, however were difficult to schedule in advance. As anticipated through previous experience, volunteer training was best provided one on one, right as the volunteer begins working with kits and surveys. Much of the outreach was performed directly by MSCS.

Feedback from boaters continued to be over-

whelmingly positive. 80 clean boating kits were distributed and surveys collected through the FY13 Launch Host program, mostly from the North campground launch. One kit was generally distributed for each survey, and boaters with two jet-skis or watercraft got two kits. In addition, 10 kits were given to Shilanski Marina owner Floyd Shilanski, five kits were given to volunteers from Girl Scouts, Boy Scouts, launch hosts at North & South campgrounds, and Steve's Toyostove, and seven kits were distributed to Alaska Extreme Motor Sports owner Helen Heirat. 450 stickers were given to Chamber of Commerce, Tesoro station, boat repair shop, local marinas, Mat-Su Angler's, Sportsman's Warehouse, and Girl Scout volunteers for distribution. A box of 30 wrapped bilge pillows was given to the Girl Scouts for distribution at Sportsman's Warehouse, and a box of 30 to Burkesshore Marina for distribution to their service customers. South Port Marina took Clean Boating on Big Lake stickers, but so far they have not shown significant interest in partnering for further clean boating outreach at their facility.

An outreach table was set up during Launch Host efforts at the boat launches. Each table had a project banner, a boating kit, and a demonstration of the amounts of oil and gas lost with three types of common outboard engines. This was a great, interactive, and fairly neutral way to get a message out about pollution prevention. MSCS also set up a big bucket (during the busiest days) with some motor oil and a bilge pillow for a demonstration. Kids especially liked making a mess and seeing how well the pillows could work. The South Shore campground allowed for both boat launch surveys and time talking in a relaxed way with campers. North Shore Launch has less camping space, and more in-and-out launching activity. The Borough Public launch



Clean boating kits include an oil absorbent bilge pillow with custom wrapper (center on the table), oil absorbent pad, Fuel Out, Fish On! Brochure, clean fueling magnet, tide book, floating keychain, Clean Boating on Big Lake sticker, and relevant clean boating materials as available.

has no camping, and people are focused on getting loaded in and out of the water. In FY14 we will continue to visit the Borough launch site more in the mornings and late-afternoons during this launch and load period. The campground launches are busy throughout the day due to the more regular flow of traffic.

In FY13, 11 volunteers assisted with the Launch Host program, many of whom were Girl Scouts. A number of local businesses and publications also assisted in spreading the word about the Clean Boating on Big Lake campaign and Launch Host program (more on this in the Public Outreach section on Page 12). Extra banners were printed in May 2013, and hung in June at the entrance to North launch, the "Kids Don't Float" life jacket stations at North and South Launches, Burkesshore Marina, and at Alaska Extreme Motor Sports' highly visible fence on Big Lake Road by the supermarket mall.

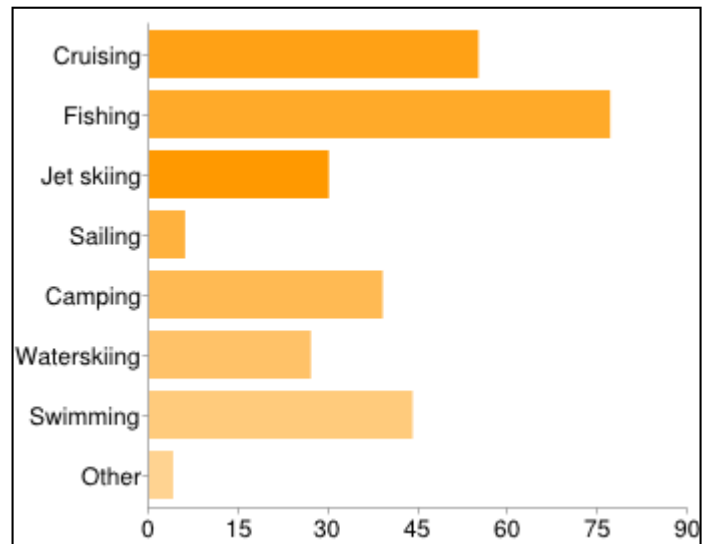
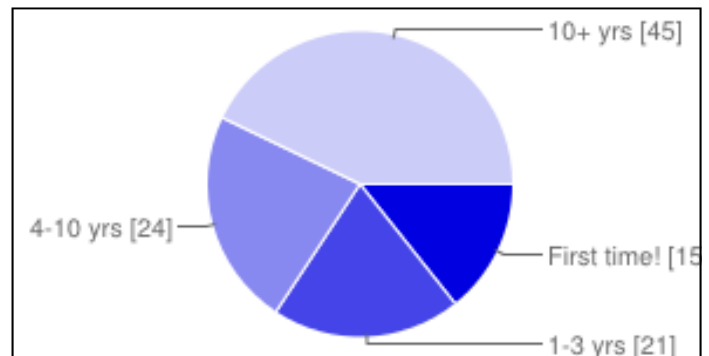
BOATER SURVEY RESULTS

As part of the Big Lake Launch Host program, boaters complete a clean boating survey in exchange for a clean boating kit from local volunteers. A copy of the 2013 survey is included in the Appendix. The same survey was distributed during the FY12 project. Responses and general feedback from these surveys help us track boating behaviors on Big Lake. We have found in the past two years that generally boaters a) don't know that Big Lake is listed as polluted, and b) want to have clean water and help to improve the water quality at Big Lake.

During FY13, boaters filled out 107 surveys, including 27 completed during the Mat-Su Outdoorsman's Show in March 2013. Surveys were distributed at boat launches during busy weekends, targeting holidays and good weather windows when the most boaters would be at the launches. We were unable to conduct outreach during Memorial Day weekend 2013 because of the extensive ice that still covered Big Lake at that time (see the top photo on page 11).

Of the 107 responses from our surveys, the majority of boaters (63%) were male. 48% were between the ages of 31 and 50, 31% were between 51 and 65, 12% were between 21 and 30, 6% were over 65, and 4% were under 20 years old. Boaters were from Anchorage (n=32), Wasilla (32), Palmer (15), Big Lake (13), Eagle River (7), Houston (2), Chugiak (2), Talkeetna (1), Willow (1), Beaver Lake (1), and one provided no response. These demographic distributions are similar to those seen from our FY12 clean boating surveys.

42% of respondents said they have boated on Big Lake for 10 or more years. It was the first time on Big Lake for 14% of respondents, and 20% had been boating on Big Lake for 1-3 years. 22% had been boating on Big Lake for 4-10 years. This shows a fairly even distribution of boater experi-



Top: Distribution of years spent boating on Big Lake. 35% of respondents have boated on Big Lake for 10 years or more. Bottom: Boaters indicated they enjoy fishing on Big Lake, followed by cruising and other activities such as swimming and jetskiing.

ence at Big Lake, with just over half of all respondents having 4 or more years of boating on Big Lake. These results are also very similar to those found during FY 12.

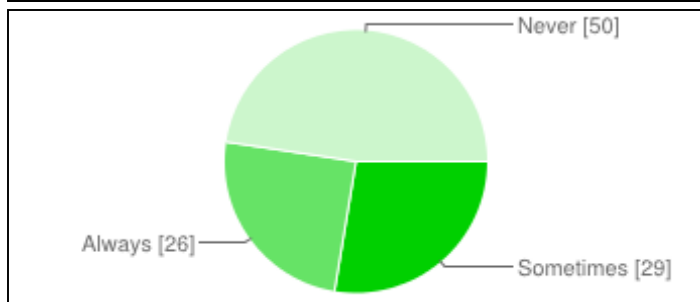
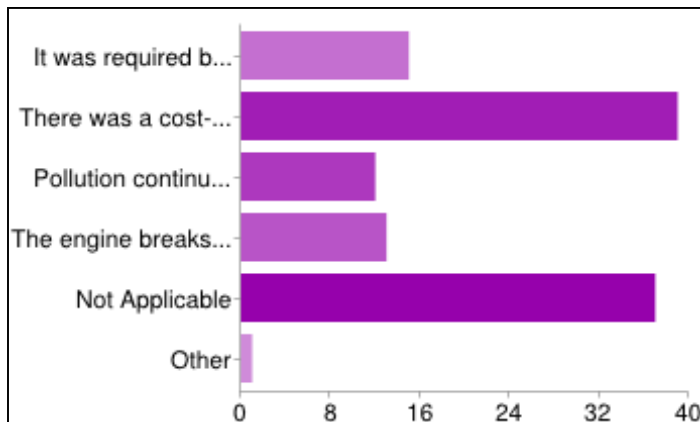
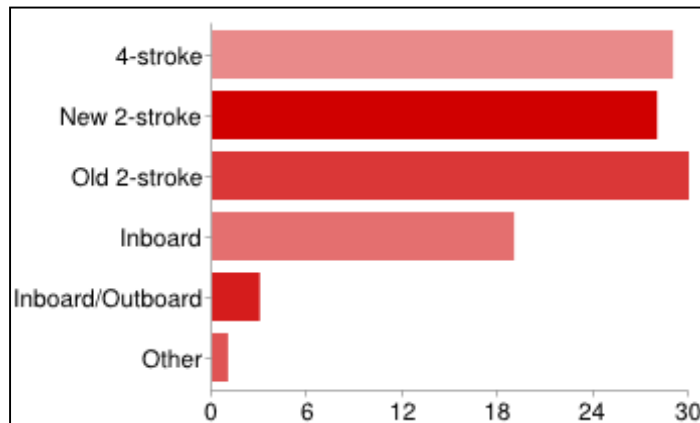
The chart above (bottom) shows the breakdown of recreational activities boaters said they enjoyed while on Big Lake. Cruising/boating and fishing were the top two, with swimming and jetskiing also very popular. There was a similar distribution of activities in FY12, however this year we saw more people mark fishing as an ac-

tivity they enjoy on Big Lake, surpassing the number of people who marked cruising. In FY12 these two activities were tied for the most popular.

We asked boaters to tell us what kind of engine is on their primary vessel. 29% of boaters said they have a 4-stroke engine, and 28% said they have a newer 2-stroke engine. Older 2-stroke engines were reported for 30% of the boats used by our respondents. The percentage of “old” two strokes reported was similar to results from FY12 (29%), with considerably more people reporting having a “new” 2-stroke (18% in FY12 compared to 28% in FY13).

Similar to our last round of surveys in FY12, the majority of respondents (70%) did not know that Big Lake was listed as polluted by the state of Alaska. However when broken down by location, nearly 40% of Big Lake respondents knew of the listing, while only 26% from Anchorage/Eagle River and 28% from Palmer/Wasilla knew of the listing. This suggests that while our initial outreach efforts to-date have made some impacts in the Big Lake-area, there are many boaters coming in from larger population centers where education will take longer to reach more people.

When asked to complete the statement “I would be more likely to replace my older 2-stroke engine if...”, 37% said if there was a cost-share/buy-back program and 35% indicated they would replace an older 2-stroke if their current engine broke and couldn’t be repaired. These results illustrate the cost of less-polluting 4-stroke engines as a major barrier to change among boaters. 11% did say they would replace their engines (presumably voluntarily) if pollution continues in lakes and rivers, and 14% said they would if it was required by law. This number is likely low since there were other options available, and



Top: Most boaters who participated in our survey indicated they have a 4-stroke or ‘new’ 2-stroke engine on their primary vessel. Middle: Responses to the questions, “ I would be more likely to replace my older 2-stroke engine if: “. Answer choices, from top to bottom, were: It was required by law, There was a cost-share/buy-back program, Pollution continues in lakes and rivers, The engine breaks down and can’t be repaired, Not applicable, Other. Bottom: How often do you use absorbent pads/diapers when fueling? The number of people responding ‘Always’ doubled from FY12.

many boaters don't want to see a legal change to require a switch in engine types.

When asked about fueling practices, 78% of boaters said they most often fuel their boat at the gas station prior to leaving for the launch ramp. Only 13% said they fuel at a marina with a fuel dock and 21% said they bring their own gas cans to refuel, presumably at the launch or on the water. This information mirrors the results from FY12, and indicates two things about our respondents: most boaters are fueling their vessels away from the water, and gas stations in Big Lake and the surrounding communities (Houston, Wasilla) are possibly good outreach locations to reach boaters about clean boating practices. As shown in the bottom chart on the facing page, 47% boaters surveyed said they never use absorbent pads when fueling their boats. 24% said they always do, and 27% said they never do. The number of people who reported always using absorbents when fueling doubled from FY12, when only 12% of respondents indicated they always used absorbent pads. This is a positive trend and we hope to see increased indications of absorbent use in our survey responses as we continue the Launch Host program and community outreach in FY14.



Top: Ice covered Big Lake throughout May in 2013, including on what is usually a busy Memorial Day weekend. Bottom: Volunteer Lindsey talking with the boating public and handing out clean boating kits at the Mat-Su Outdoorsman's Show Clean Boating booth. Photos provided by C. Inman.

PUBLIC OUTREACH & COMMUNITY PARTICIPATION

A major component of this ongoing project is raising awareness among boaters and the surrounding communities of the collective impact of individual spills of fuels and oils on water quality. Throughout the year, Cook Inletkeeper's Rachel Lord and Mat-Su Conservation Services' (MSCS) Catherine Inman participated in the Big Lake Water Quality Workgroup meetings to better understand how the community wanted to implement the relevant educational components of their Action Plan. During FY13 the Water Quality workgroup met on September 19, 2012 and April 16, 2013. Minutes and information from those meetings can be found on the Alaska Dept. of Environmental Conservation's (ADEC) Big Lake water quality website: http://www.dec.state.ak.us/water/wnpspc/protection_restoration/biglakewq/index.htm.

In addition to the Launch Host Program (described on page 7), specific actions to increase public awareness and community participation are described in detail below.

News & Media

Significant media attention was gained during the latter portion of FY12, with a 5-minute television special interest spot airing on Channels 4 and 13. This was a great segue into the start of FY13 and the busy July Fourth holiday weekend.

To kick off the boating season in FY13, local hire Randi Perlman wrote an article on the Clean Boating on Big Lake campaign and Launch Host program that was published in the Valley-wide "Make a Scene" newspaper, the Chamber of Commerce newsletter, the Mat-Su Valley Frontiersman and the Anchorage Daily News. Copies of these articles can be found in the Appendix.

The spring of 2013 was one for the record books, with thick ice blocking boaters from a usually



Top: ADEC Project Manager Laura Eldred at the shared Clean Boating table during the spring Big Lake Boat Show at the Big Lake Lion's Club sports arena. Bottom: MSCS's Catherine Inman at the Mat-Su Outdoorsman's Show Clean Boating booth. Photos provided by C. Inman.

busy Memorial Day weekend. Despite this, Rachel Lord spent 10 minutes on the Friday leading up to Memorial Day on the Tom Anderson radio show in Anchorage to plug the Clean Boating program on Big Lake. Randi Perlman also worked with a local radio station in the Mat-Su Valley to record a 90-second Clean Boating on Big Lake Public Service Announcement (PSA). This PSA began running five times per day on station Q99.7FM just prior to the July 4th weekend and will continue in FY14. Also in June 2013

Randi was interviewed by country radio station 100.9 in the Valley during a popular morning program. Conducting radio-based outreach continues to be an effective method of communicating clean boating messages to a large geographic area that extends beyond the Big Lake community and to more boaters the Mat-Su Valley and Anchorage.

Boat Shows

As part of this project, MSCS hosted a table at the Mat-Su Outdoorsman's Show for three days in March at the Menard Sports Complex in Wasilla. The show was a very effective early-season outreach event, and we will attend it again in FY14. Over three days approximately 500 people stopped by the "Big Lake Clean Boating" booth. 27 kits and surveys were distributed, and the fish-shaped keychains from ADEC disappeared by early Saturday. Four adult volunteers helped staff the booth, and the visitor pace was steady, with quite a few people familiar with Big Lake and recreating there. We had fun with the booth, adding fish hand stamps for kids and the motor oil "demo" bottles used in the Launch Host program showing engine efficiency.

MSCS also was present with a Clean Boating on Big Lake message at a shared booth with ADEC during the spring Big Lake Boat Show, held at the Big Lake Lion's Club sports arena. Several clean boating kits were distributed during the show. The boating public in attendance were mostly from Big Lake area. This provided a positive opportunity for productive conversations regarding the Clean Boating on Big Lake project.

Community Involvement

The following community partners have been involved in this project, either through volunteering or inviting project staff to connect with their

members:

- Rotary Clubs of Susitna, Wasilla Noon and Wasilla Sunrise
- Chamber of Commerce in Big Lake, Palmer and Wasilla
- Big Lake Lions Club
- Sertoma Club
- Boy Scouts and Girl Scouts
- Burkeshire Marina
- North Shore Marina
- Sportsman's Warehouse, Wasilla
- Alaska Extreme Motor Sports
- A-1 Signs, Big Lake
- Steve's Toyostove
- Big Lake Clean Water workgroup
- Alaska State Parks staff and campground concessionaire
- Lakeshore Entertainment

We have received positive and appreciative feedback from all community partners, many of whom believe this Clean Boating on Big Lake ef-



Big Lake Girl Scout Cassie Alexander shows off her Clean Boating on Big Lake display she developed for the Big Lake Public Library during FY13. Photo by C. Inman.

fort will be effective in reducing measurable pollution in Big Lake. Many boaters and businesses reported that awareness has increased substantially in the past two summers of the Clean Boating outreach program. Our approach of “common sense, good housekeeping tips” is appreciated, and has proven to be non-confrontational. Although it is difficult say how much pollution prevention has been achieved directly through the education efforts, clean boating awareness has certainly risen, and many businesses and boaters are appreciative of our efforts. Water quality testing by ADEC will be repeated in Big Lake in 2013 and 2014 to determine if there has been a change or reduction in high hydrocarbon levels seen during previous sampling efforts.

Beginning in FY12, MSCS and Cook Inletkeeper were pleased to work with local Big Lake Girl Scout Cassandra Alexander on a Gold Star project focused on pollution prevention on Big Lake. Cassie continued to work on the Clean Boating on Big Lake project during FY13, and on June 19, was invited to speak at a special briefing panel sponsored by the American Chemical Society, Congress, and Girl Scouts of the USA, on engaging girls and women in ‘STEM (Science, Technology, Engineering, and Mathematics) Workforce Equality’. Sen. Lisa Murkowski was a co-host for the event. Cassandra, a high school student, was the only youth speaker, and the only Gold Star Girl Scout from Alaska able to speak on the topic due to her Gold Star project having involved water science as part of the Clean Boating on Big Lake efforts. During summer and fall 2012, she assisted in conducting outreach for the Launch Host program, then went on to set up a display booth on her own at Sportsman's Warehouse, created an educational public display for the Big Lake Library, and worked with Big Lake Element-

tary students on clean water activities. In a June 24 article about her trip in the *Frontiersman* newspaper Alexander thanked MSCS and Cook Inletkeeper for their assistance with this project. A copy of this article is included in the Appendix.

2013 National Waters to Watch

On April 30, Big Lake was awarded the honor of being one of the 10 Waters to Watch by the National Fish Habitat Partnership (NFHP). Selected waters highlight voluntary habitat conservation efforts in progress during 2013 from around the country. Locally driven conservation projects which are implemented by partnerships are given this designation as a showcase of efforts working to avoid or reverse degradation of aquatic habitats. As demonstrated in this report, Big Lake has an impressive array of local partners and projects working for aquatic habitat and water quality protection and improvement, and this designation can help bring attention to issues facing Big Lake. The full narrative outlining Big Lake’s inclusion in this list can be found on the NFHP website: <http://fishhabitat.org/waters-to-watch/2013>.

OUR NEIGHBORS

Valley Girl Scout speaks at Capitol

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Posted: Monday, June 24, 2013 5:30 pm | Updated: 8:05 pm, Mon Jun 24, 2013.

0 comments

Posted on June 24, 2013 by Heather Resz

BIG LAKE — It wasn't the size of the audience that made Cassandra Alexander nervous June 19.

More than the crowd of 35 or so, the 17-year-old Colony High School senior said it was the location of her presentation Wednesday and the audience members themselves who rattled her.

"I was a little nervous, but I knew I could do it," she said by phone from Washington, D.C., Wednesday evening after participating in the "STEM Workforce Equality: Engaging Girls and Women" panel at the U.S. Capitol Visitors Center earlier that day. "It was more intimidating today."

Cassandra Alexander and Sen. Lisa Murkowski

Big Lake Girl Scout Cassie Alexander makes a splash with her Clean Boating on Big Lake efforts.

Cook Inletkeeper received a third year of funding under the Alaska Dept. of Environmental Conservation Alaska Clean Water Action grant program to continue this project through 2013 and into 2014. Work during the third year (FY14 from July 1, 2013 – June 30, 2014) will focus on continuing the Launch Host program and looking down the road for community-supported efforts to continue work towards improving water quality through education and outreach in Big Lake. The FY14 project objectives are twofold:

- 1) To continue implementing the Launch Host program as an educational clean boating program to ensure that boaters have locally available resources, know how to practice clean boating skills, and have an understanding of the negative impacts of petroleum on human health and fish habitat; and,
- 2) To continue empowering campground hosts and local business owners to encourage clean boating.

In FY14 we will also be expanding this project to include not only Big Lake but also the Little Susitna River. Similar work will be done at the public boat launch on the Little Su, as well as in the wider community at businesses and outreach events. We will again host a clean boating table, covering both Big Lake and the Little Susitna River, at the Mat Su Outdoorsman's Show in March 2014.

Mat-Su Conservation Services will continue to lead the charge on the ground for this project. We look forward to working more with the community of Big Lake. Our past work with Big Lake, beginning in FY11, has provided wonderful opportunities for Cook Inletkeeper staff to meet fantastic people in Big Lake and understand how



Cook Inletkeeper and local contractor Catherine Inman, from Mat-Su Conservation Services (shown above) are excited to continue work with Big Lake community members and expand these positive and productive efforts to the Little Susitna River during FY14 under a third year of ACWA funding. Photo provided by C. Inman.

we can best operate as a resource for the community now and in the future.

ACKNOWLEDGEMENTS

Cook Inletkeeper would like to thank the community of Big Lake for their engagement, support, and dedication to these efforts and so many more to help improve and protect the water quality in Big Lake. We'd like to especially thank Randi Perlman, Steve Totten, Nick and Katie Gittlein, Paul Du-Clos, Floyd Shilanski, Gerard Billinger, Dan and Cathy Mayfield, Bill Kramer, Seth Kelley, Margaret Billinger, Ina Mueller, Helen Heirat, Barb and Don Smith of A-1 Signs, Diane Beauvais and Girl Scout Troop 941, Cassandra Alexander and Julie Alexander. Without their efforts, this project and others that have been initiated by them and the rest of the local Water Quality Workgroup, would be dead in the water. We'd also like to thank Holly Peterson, Shelly Wade, Catherine Inman, Frankie Barker, Cindy Gilder, Laura Eldred, and Wayne Biessel for their ideas, critical involvement, and support throughout this project and for their efforts on other efforts to protect Big Lake's water quality for present and future generations.

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APPENDIX

Appendix A

2013 Big Lake Clean Boater Survey

Appendix B

Media Excerpts

Perlman, Randi. Letter. "Keeping Big Lake clean is catching on" *The Frontiersman.com*. June 13, 2013.

Perlman, Randi. Letter. "Take a few simple precautions to keep fuel out of Big Lake" *Anchorage Daily News/AND.com*. June 14, 2013.

Perlman, Randi. "Keeping Big Lake Clean Is Catching On!" *Make-A-Scene*. June 2013.

Resz, Heather. Article. "Valley Girl Scout Speaks at Capitol" *The Frontiersman*. June 24, 2013.

"Big Lake, Alaska." *National Fish Habitat Partnership*. Web. <http://fishhabitat.org/content/big-lake-alaska>



Spring & Summer 2013 Big Lake Boater Survey

1. How many years have you been boating on Big Lake? (please circle one)

First Time! 1-3 yrs 4-10 yrs +10 yrs

2. Where do you live most of the year (city and state)?

3. What types of recreational activities do you enjoy on Big Lake (circle all that apply)?

Cruising Fishing Jet Skiing
Sailing Camping Waterskiing

Swimming Other: _____

4. What kind of engine is on your primary vessel?

"Old" 2-stroke "New" 2-stroke

4-Stroke Inboard

Inboard/Outboard

5. Where do you most often fuel your boat?

Gas station prior to launching

Marina with a fuel dock

Bring own gas cans to refuel

6. How often do you use absorbent pads/diapers when fueling?

Sometimes Always Never

7. How would you complete this statement: "I would be more likely to replace my older 2-stroke engine if: (circle one)

It was required by law

There was a cost share/buy-back program

Pollution continues in lakes and rivers

The engine breaks down and can't be repaired

Not Applicable

8. Did you know that Big Lake was listed as polluted by the state of Alaska?

Yes No

9. Please tell us a little about yourself:

Age: Under 20 21-30 31-50 50-65 65+

Gender: Male Female

Number of people in your household: _____

How many are under 18 years old? _____

☐ *YES! I want to get occasional updates about clean boating at Big Lake and around Alaska.*

Name: _____

Email: _____



Paid for (in part) by an Alaska Clean Water Actions (ACWA) grant from the Department of Environmental Conservation and with National Oceanic and Atmospheric Administration (NOAA) Pacific Coastal Salmon Recovery Funds.

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your listing in the
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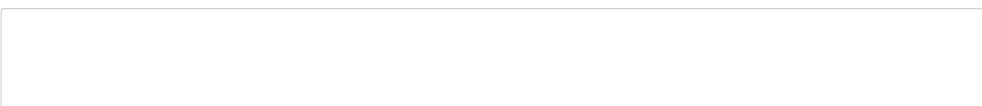
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Keeping Big Lake clean is catching on

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Posted: Thursday, June 13, 2013 7:46 pm

By [Randi Perlman](#) For [Frontiersman.com](#) | [0 comments](#)

BIG LAKE — The Clean Boating on Big Lake program is making a big splash. The program, now in its second season, has been a good first step in educating recreational users of Big Lake about some simple and common sense ways to help keep gas and oil out of the lake. These include draining your boat's bilge on land instead of in or near the lake, fueling your boat or water scooter before you launch — away from the water — and using an absorbent pad to catch your drips.

This is the third year of a grant from the Alaska Department of Environmental Conservation with Cook Inletkeeper, and the initial outreach effort has been a resounding success. Community members have been receptive to stepping up to the plate when it comes to learning simple ways to help keep Big Lake clean, and they are enjoying the free kits handed out by project volunteers. Keep Big Lake Clean boating kits include a variety of useful and educational items for those who like to recreate on the lake, with tips on how we can all do our part to keep small leaks and spills out of the lake.



Outreach for the Clean Boating on Big Lake program is an ongoing effort and will continue throughout this summer and into next. It will focus on promoting environmentally friendly boating practices by users on busy holiday weekends and around boat launch sites. This year's late breakup kept boaters away during Memorial Day weekend, but the outreach is particularly important over long weekends like July Fourth and Labor Day. Boaters and water sports enthusiasts want to protect shared water resources, and now they are receiving some free, helpful ways to do so. The support is building on last summer's success, and keeping Big Lake clean is catching on.

The Clean Boating on Big Lake Program is sponsored by a state grant, administered through Cook Inletkeeper and managed locally by Mat-Su Conservation Services.

For more information or to volunteer, contact Catherine

Inman at 841-2226 or visit bit.ly/11KR4zZ.

Wasilla, AK

Current Conditions



Broken Clouds

72°

Humidity: 50%

Winds: WNW at 8mph

Feels Like: 72°

Your Extended Forecast

Today



High 73°/Low 53°
Mainly sunny

Tomorrow



High 75°/Low 54°
Mainly sunny

Saturday



High 70°/Low 54°
Times of sun and clouds

Sunday



High 65°/Low 53°
Partly cloudy

7 Day Forecast

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Letter: To both sides, leave kids alone

Letter: Take a few simple precautions to keep fuel out of Big Lake

Published: June 14, 2013

As Alaskans from all over come to Big Lake on summer weekends, the amount of gas and oil in our lake increases to a dangerous level for fish and other water creatures. Boaters can take some simple, helpful actions to decrease that pollution, such as:

- Keep absorbent pads on board to collect small drips or spills when fueling/adding oil;
- Fuel slowly on land before launching; always use absorbent around the nozzle to absorb excess fuel;
- Don't drain bilge in the lake or on the launch ramp; make sure there's some vegetation between you and the lake before draining your boat. Use pillows to absorb oil/gas in the bilge.

Volunteers working through Cook Inletkeeper and Mat-Su Conservation Services will hand out free clean boating kits at public boat launches in Big Lake this summer, with simple tips and tools to help you do your part to keep fuel and oil out of Big Lake, for our own health and enjoyment as well as a healthy environment for our fish and other water creatures!

— *Randi Perlman*

Big Lake

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Letter: Art Hackney wrong on oil issue

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Letter: To both sides, leave kids alone

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Keeping Big Lake Clean Is Catching On!

By Randi Perlman

The Clean Boating on Big Lake program is making a big splash! The program, now in its second season, has been a good first step in educating recreational users of Big Lake about some simple and common sense ways to help keep gas and oil out of the lake. These include draining your boat's bilge on land instead of in or near the lake, fueling your boat or jet-ski before you launch, away from the water, and using an absorbent pad to catch your drips.

This is the third year of a grant from the Alaska Department of Environmental Conservation (ADEC) with Cook Inletkeeper, and the initial outreach effort has been a resounding success! Community members have been very receptive to 'stepping up to the plate' when it comes to learning simple ways to help keep Big Lake clean, and they are enjoying the free kits handed out by project volunteers.

The "Keep Big Lake Clean" boating kits include a variety of useful and educational items for those who like to recreate on the lake, with tips on how we can all do our part to keep our small leaks and spills out of the lake.

Outreach for the Clean Boating on Big Lake program is an ongoing effort and will continue throughout this summer and into next. We'll focus on promoting

environmentally-friendly boating practices by users on busy holiday weekends and around boat launch sites. This year's late breakup of Big Lake kept boaters away during Memorial Day weekend, but the Clean Boating outreach is particularly important over long weekends like July 4th and Labor Day.

Boaters and water sports enthusiasts want to protect our shared water resources, and now they are receiving some free, helpful ways to do so.

The support is building on last summer's success, and keeping Big Lake clean is catching on! We hope to see you out there this summer, enjoying Big Lake and helping to keep it clean...

The Clean Boating on Big Lake Program is sponsored by a grant from ADEC, administered through Cook Inletkeeper, and managed locally by Mat-Su Conservation Services.

For more information or to volunteer, contact Catherine Inman at 841-2226 or check out inletkeeper.org/clean-water/clean-boating/biglake



► **Inletkeeper's Rachel Lord hands out clean boating kits at the 2011 Big Lake Community Picnic**

Cardboard City 2013

By Grace Kari

Think of all the places you've slept that weren't a bed.

The couch? A tent? Under the stars? Most of these answers probably involved a conscious decision to relinquish the comforts of your pillow fluff slumbers for an evening or two in the name of adventure, family bonding, or toasted marshmallows. However, some people have no choice but to sleep in boxes or their cars every night.

Family Promise Mat-Su's Cardboard City is an all-ages community fundraising event designed to raise awareness of the homelessness in the Mat-Su Valley. It will be held at the Alaska State Fairgrounds on July 19th and go straight until the morning of July 20th. Every year, about 200 people come out and sleep in their own homemade corrugated cranny

of comfort (cardboard box), listen to great live music, and in general just make sure that the voices of those in need are heard.

To get a starter box requires a \$50 donation to Family Promise Mat-Su, the non-profit whose sole purpose is to help homeless families get back on their feet and eventually eliminate homelessness completely.

This year, Cardboard City will feature music by exceptional local musicians Marching Band Solo and Julia Cannon, soup and bread provided by Turkey Red, Vagabond Blues, and Northstar Bakery, best cardboard dwelling contests, and testimonials by previous Family Promise Guests.

► **Contact Family Promise Mat-Su or Director Laurie Kari at (907) 357-6160**

Stop by the office on Nelson in Wasilla, or head over to familypromisematsu.org to register and for further information.





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Valley Girl Scout speaks at Capitol

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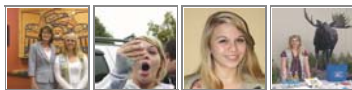
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Cassandra Alexander and Sen. Lisa Murkowski



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Posted: Monday, June 24, 2013 5:30 pm | Updated: 8:05 pm,
Mon Jun 24, 2013.

0 comments

Posted on June 24, 2013
by [Heather Resz](#)

BIG LAKE — It wasn't the size of the audience that made Cassandra Alexander nervous June 19.

More than the crowd of 35 or so, the 17-year-old Colony High School senior said it was the location of her presentation Wednesday and the audience members themselves who rattled her.

"I was a little nervous, but I knew I could do it," she said by phone from Washington, D.C., Wednesday evening after participating in the "STEM Workforce Equality: Engaging Girls and Women" panel at the U.S. Capitol Visitors Center earlier that day. "It was more intimidating today."

The American Chemical Society, Congress and Girl Scouts of the USA sponsored the briefing and panel discussion on "STEM Workforce Equality: Engaging Girls and Women." The event was co-hosted by Sen. Chris Coons (D-DE) and Sen. Lisa Murkowski (R-AK) and

moderated by Madeleine Jacobs, executive director for the American Chemical Society. In addition to Alexander, panelists included Girls Scouts of the USA CEO Anna Maria Chavez; Carol Amos, manager of the field engineering program for DuPont; and Judy Brown, senior vice president of education, Miami Science Museum.

The discussion centered on options to foster youths' — particularly girls' — curiosity and build a future STEM workforce that reflects the national population and helps deliver prosperity to communities. The acronym STEM stands for "science, technology, engineering and mathematics."

Panelists addressed best practices in out-of-school settings to engage and energize girls into STEM interests with a focus on the K-12 age group.

Alexander was the only youth included in the panel and she is the first Girl Scout from the Valley to earn a Gold Award since 2007.

Wasilla, AK

Current Conditions



Broken Clouds

72°

Humidity: 50%

Winds: WNW at 8mph

Feels Like: 72°

Your Extended Forecast



Today

High 73°/Low 53°
Mainly sunny



Tomorrow

High 75°/Low 54°
Mainly sunny



Saturday

High 70°/Low 54°
Times of sun and clouds



Sunday

High 65°/Low 53°
Partly cloudy

7 Day Forecast

Community News

News & Notes

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'Jul' Yule' concert to benefit Mat-Su Special



Alexander joined Girl Scouts when she was 5. This year she earned that organization's highest achievement, the Gold Award. It was a summary of her Gold Award project that earned her this most recent opportunity in a long list to come her way via Scouting.

Her mom, Julie Alexander, said her daughter has been earning money to go on Girl Scout trips for several years. The family says they are experts at fundraising through efforts such as cookie sales, babysitting, bake sales, a flagger at a motorcycle race, sweeping parking lots and once she made 10 cents a hat for putting price tags on them for a vendor at the Alaska State Fair.

The two returned to the Valley June 20, but she will leave in about a month for her next Girl Scout adventure. This time she's one of 17 girls from across the U.S. picked to be part of a Girl Scout Destination trip to Peru from July 21 to 31.

Alexander said girls apply to participate in the Destinations trips. She's also been to Costa Rica, Japan and Panama with the Girl Scouts, and attended a marine biology camp in California and Space Academy in Huntsville, Ala.

So what was her Gold Award project?

Boaters on Big Lake will remember Alexander as the young woman at the boat launch last summer passing out boating kits and conducting a survey.

For a project to meet the qualifications for a Gold Award it has to address the root cause of a problem and seek to solve it in a sustainable way, she said.

It was a Girl Scout trip to Costa Rica last summer that opened her eyes to the importance of clean water in her community, she said.

When she got back to Alaska, Alexander said she learned that the Department of Environmental Conservation has classified Big Lake as an impaired body of water. So, she decided on a project to educate the public about better boating habits.

As part of her project, she made clean boating kits with tips on how to prevent spills, bilge pillows to absorb spilled oil and gas and a survey with questions like, "Did you know Big Lake is classified as impaired?"

After spending some time at the lake, she noticed it wasn't just adults who had a role to play in protecting the lake's water. She said she saw kids filling up Jet Skis and other watercraft along the edge of the lake and wanted to teach them to take care of the water, too.

To that end she made a display about the project for the Big Lake Library and scheduled time to talk to students at Big Lake Elementary about ways they can help, too. She also did a clean boating presentation at the 2012 Solstice Fair at Sportsman's Warehouse in Wasilla.

Alexander said Catherine Inman and CookInlet Keeper also deserve thanks for helping her with her Keep Big Lake Clean project. The teen said she met Inman several years ago through the Girl Scouts' Mat-Su Women of Science and Technology program. This year, about 320 girls from kindergarten through 12th grade participated in the annual Girl Scout program.

"She really went above and beyond," Alexander said. "She's an expert. That really helped me with my project."

Toward the goal of making the effort sustainable, Sportsman's Warehouse has agreed to hand out bilge pillows in its boating department and Inman will continue Alexander's survey.

After the panel discussion, Alexander also met with all three members of Alaska's Congressional delegation.

"It's definitely something I will never forget," she said.

Contact Heather A. Resz at 352-2268

or heather.resz@frontiersman.com.

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Partners put projects on the map

Explore the Partnerships that make up the National Fish Habitat Action Plan



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Big Lake, Alaska

A Waters to Watch project for 2013

(Mat-Su Basin Salmon Habitat Partnership)

Conservation Action: Big Lake, located in the fast-developing Mat-Su Borough, is a large, well-populated lake used for recreation in the growing community of Big Lake, just west of Wasilla. The lake itself, with 26 miles of shoreline and two streams in its basin, is used by spawning sockeye and coho salmon each year, and is host to resident populations of Dolly Varden, and rainbow trout. Threats include hydrocarbons from boats, habitat loss through shoreline development, urban stormwater runoff, and invasive northern pike. The Big Lake Community is working on a Community Impact Assessment Project with the Mat-Su Borough to address responsible growth, including habitat concerns.

Project Partners:

U.S. Fish and Wildlife Service – funding, juvenile fish abundance study 2011-2013, Spawning Distribution, Cold Water Inputs data, restoration assistance, and habitat utilization projects for both sockeye and coho adult salmon and for coho juveniles.

Alaska Department of Fish and Game, Division of Sport Fish - measured flow at four locations in the drainage in order to understand and protect the flows that support salmon. The weir at Fish Creek has been active past several decades, monitoring and managing adult sockeye and coho runs in the drainage. Sustainable escapement goals are in place for both species. ADF&G Sportfish supported Meadow Creek Restoration 2012, and Big Lake Sailing Club shoreline restoration 2012 & 2013

Department of Fish and Game, Commercial Fish Division - estimates the number of salmon smolt leaving the drainage each spring

Alaska Department of Environmental Conservation – funding for Boat Launch outreach, conduct water testing for hydrocarbons 2006-2013, responsible for Listing/Unlisting as Impaired Waterbody, Clean Water Working Group funding & facilitation

The Nature Conservancy – coordinates Mat-Su NFHP area

Cook Inletkeeper – Clean Boating and Marinas outreach, funding from DEC grants, Clean Boating and Alaska Clean Harbors outreach 2011, 2012, and 2013

Mat-Su Conservation Services – community & local business outreach, boat launch outreach, Girl Scouts participation, public education, restoration participation

Aquatic Restoration and Research Institute – various studies since 2004, most NFHP funding + DEC, AKSSF: Stream Temperature Monitoring, Relative Abundance of Juvenile Salmon in Meadow Creek, Stormwater Quality looking at fish, invertebrates and water chemistry, Bioenergetic Modeling, (using fish to look at differences in habitat quality on Meadow Creek) 2013, Water Sampling in Big Lake - Working with DEC impaired waters to test effects of education campaign, 2013

Matanuska-Susitna Borough – planning, shoreline vegetated setback outreach, lake water quality testing volunteers/program, public park at Fish Creek outlet,

Big Lake Elementary – classroom activities for clean water with Girl Scout project 2012

Midnight Sun Elementary – restoration at Fish Creek outlet & Borough Park 2009

Alaska State Parks, Mat-Su – maintain public launches, campgrounds, clean boating outreach, plan clean bilge dump facilities

Big Lake Sailing Club – shoreline restoration project, summer environmental camp, 2012-2013

Girl Scouts of America, Mat-Su Council – clean boating and clean water, stormwater 2012 outreach, Gold Star Award to high school student assistance for Big lake 2012 project with Mat-Su Conservation Services and Big lake Elementary

Sportsman's Warehouse store – booth space during sales for Big Lake Clean Boating displays with several partners

Wasilla Soil and Water Conservation District – Meadow Creek restoration 2012

Environmental Protection Agency – funding MSB stormwater management plan and green infrastructure demos for shoreline landowners

Alaska Sustainable Salmon Fund – funding for Shoreline Landowner Restoration and 5-year Stream Flow study data 2008-2013 aimed at securing in-stream flow reservations for fish

Cook Inlet Aquaculture - Hatchery fish released until 2008

Big Lake Chamber of Commerce – Clean Water Group, community newsletter updates

Big Lake Clean Water Action Group – DEC funded, meeting fall-winter-spring since 2010

Burkeshore Marina – clean-burning fuel disposal facility (DEC grant 2011), fuel clean-up stations, staff spill response training, clean water booth at yearly Big Lake Family Fishing Derby is a well-attended outreach event!

