

CURRENTS

Newsletter of the Kenai Watershed Forum



Spring 2012

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Working together for healthy watersheds on the Kenai Peninsula

The Development of Habitat Permitting, Ordinances and Regulations for the Anadromous Streams of the Kenai Peninsula

By Suzanne Fisler

Development adjacent to salmon streams on the Kenai Peninsula has been ongoing since the turn of the century. Communities were established, roads were built, harbors were dredged, and airports were built. Homesteads and subdivisions appeared and more people moved into the area. Natural disasters such as forest fires, floods, and earthquakes resulted in major habitat changes too. But fish and wildlife resources appeared to be abundant and impacts to habitat were not always considered by agency permitters in conditioning development. The identification and development of habitat protection areas and habitat permits has also been a long evolving process. It is necessary to focus on the Kenai River and a twenty-year span of time to understand how we got to where we are today.

In the early 1980's the topics of public safety, public access, and the long term biological health of the Kenai River's salmon fisheries were surfacing in agency and public forums. Governor Jay Hammond proposed uniting the public and the state/federal agencies to join together to address the future management of the river. The Kenai River Task Force was formed in 1982 and it included regulatory agencies and user groups associated

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Do You Know What's Hitching a Ride on Your Waders?

By Nelli Williams, Special Projects Coordinator
Trout Unlimited-Alaska

If you've spent time fishing in the Lower 48, you know that freshwater aquatic invasive species (AIS) such as New Zealand Mudsnaills, Zebra Mussels, Atlantic Salmon, Northern Pike, Didymo and Whirling Disease have caused havoc for many rivers and lakes. Although Alaska seems isolated from the risks aquatic invasive species bring, Alaska's waters are in increasing danger as these aquatic hitchhikers are reported both within and near our waters.

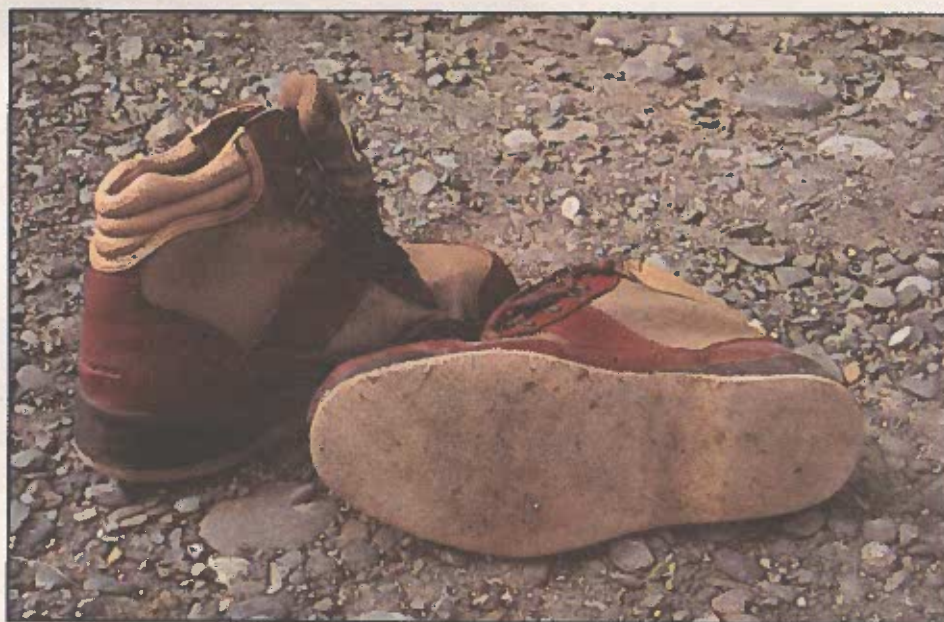
Recent studies show that one angler carries about 17 grams of sediment on their wading boots and waders. That's one pound for every 26 anglers! Many of the aquatic species mentioned above can be transported via this sediment. If you think of the number of anglers that fish on places like the Kenai and Russian River, the Bristol Bay drainages and many other places that's a lot of sediment (and potentially unwanted species) moving around the state!

As an angler you can play a major role in preventing the introduction and spread of aquatic invasive species in our prized fishing waters. Please take this simple, three step, clean angling pledge:

Inspect - carefully examine your gear at the end of each fishing trip. Look for visible signs of unwanted material that may be attached. This includes any types of plants or mud. If you see any sign of a problem:

Clean - first remove any visible material by hand then use water to wash your equipment clean in the water you are leaving. If you cannot clean before leaving a site, when you return home clean in an area far away from waterways.

Dry - thoroughly drying your equipment will kill many invaders which may have



been picked up. To eliminate all moisture from your equipment, dry for 5-9 days.

You can learn about aquatic invasive species, other ways to clean gear, and more at:

www.protectyourwaters.net, www.tu.org/science/aquatic-invasive-species-ais or www.adfg.state.ak.us/special/invasive/invasive.php

Additional efforts are going on throughout the state and nation to help anglers combat the spread of AIS. Trout Unlimited (TU) is working with retailers to help develop gear such as feltless wading boots that help reduce the chance of hitchhikers. In addition, the State of Alaska began implementing a felt sole wading boot ban beginning Jan 1st, 2012.

For more information on those efforts, please contact Nelli Williams at nwilliams@tu.org or 907-230-7121

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A Message from our President

Dear KWF Members and Friends,

As winter starts to wane and signs of spring set in around the Kenai Peninsula, it is a good time to reflect on all the great accomplishments of the Kenai Watershed Forum's last field season. In doing so, it is also important to point out that the great work of KWF would not have happened without KWF's dedicated staff, volunteers, project partners and members.

KWF projects and initiatives continued to provide benefits to critical habitats as well as community service. The Anchor River restoration project is now a prime example of how successful large scale habitat restoration can be when properly designed and constructed. The Stream Watch program continues to work with dedicated volunteers to protect the Russian River and lower Kenai River. This year, with the help of dedicated sponsors, KWF hosted the first summer camp at Soldotna Creek Park - a hit with the kids and parents. The annual Kenai River Festival was a roaring success and the new family oriented Farm Fest proved big fun for all who attended. The KWF Board and staff plan to do our best to continue to provide these and other successes this year.

One recent milestone is the completion of the Soberg Building renovation project. More of a challenge than originally anticipated, the Soberg project not only serves as a permanent home for KWF but an example of the broad support for KWF's mission and goals. Substantial financial support by the M. J. Murdock Charitable Trust and Rasmuson Foundation demonstrate that KWF is recognized as an important and effective community organization. More importantly, the continued financial support of our members is a reminder that KWF has an obligation to our many neighbors and friends as we strive to implement projects and develop programs for our community.

I would like to remind everyone to check out our web site [<http://www.kenaiwatershed.org/>] for more details on what KWF has been doing and what is in our future. I encourage you to contact KWF via email or at our new office if you would like to find a way to lend a hand with one of the many projects - it is fun!

On behalf of the Board, I want to thank everyone for their support and look forward to another busy and successful year in 2012.

Sincerely,

Jim Butler - President, KWF Board of Directors



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KWF Calendar of Events



May 17-20, 2012 • Kenai Birding Festival

A birding MUST with workshops, outings, rafting trips, films, art shows and more! Alaska's Kenai Birding Festival is full of activities designed for birders of all levels, including young and beginning birders. Come learn from local birding experts as well as world-renowned birder and Bird Watcher's Digest Editor Bill Thompson III. This 3-day event showcases the beautiful state parks, fantastic wildlife refuge and pristine beaches that draw thousands of birds to the Kenai Peninsula each year. For more information, including a detailed schedule, visit www.kenaibirdfest.com.

June TBA--Stream Watch Ambassador Orientation

Make a difference this summer: Become a Stream Watch Ambassador! Ambassadors provide a stewardship presence on the river by sharing information on ethical angling, bear safety and river health. Meet river enthusiasts from across the state, enjoy a volunteer campsite and make a difference by protecting local rivers. For more information contact StreamWatch@kenaiwatershed.org or (907) 398-4304.

June 8, 9, 10, 2012 • Kenai River Festival

Let's Celebrate! Free, Family Fun for Everyone! The 22nd annual Kenai River Festival, June 8-10, grew out of the Kenai Watershed Forum's desire to provide a free, fun setting for the community to celebrate the river, that gives so much. Learn how to give back to the river keeping it healthy and productive for generations to come. Legendary festival highlights include 20 foot long magical Luq'a the salmon, world famous pioneer salmon dinners, Run for the River 5K/10 mile race, free riverside entertainment and more. To learn more, visit www.kenaiwatershed.org.

REGISTRATION IS OPEN!



Kenai Watershed Forum
**Summer
Camp**
FUR • FINS • FEATHERS • FLOWERS • FUN



GAMES
ARTS & CRAFTS
HANDS-ON SCIENCE
ADVENTURE

WWW.KENAIWATERSHED.ORG

KWF Education Bugs Local Students

By Dan Pascucci, KWF Education Coordinator

In the dark days of winter, it's easy for people to wish for the long summer days that Alaska is so well known for. It's easy to think about early morning fishing expeditions and late-night hiking excursions. Forget about long nights of cold temperatures and howling winds, most people prefer the (sometimes) sunny skies and the (sometimes) warm temperatures that summer brings along with it. There is one thing to remember, however, while you curl up next to your space heater, wrapped in innumerable layers, wishing for summer...bugs. Alaska isn't just a paradise for people in the summertime; it's also a buffet for mosquitoes, white socks, black flies, and many other six-legged friends.

Now, just because there aren't a ton of mosquitoes buzzing around the minimal amount of skin on your face that is revealed when you shovel, doesn't mean that there aren't any bugs in Alaska in the wintertime. In fact, there are just as many insects in Alaska in the winter months, they're just chilling out in the water.

The Kenai Watershed Forum's Adopt-A-Stream classes spent the month of December celebrating insects and the many roles that they play in stream ecology and Alaska's ecosystems. Instead of students in a classroom, KWF staff turned all classes into entomologists (insect scientists). Students learned the three parts of an insect and sang "Head, Thorax, Abdomen" to the tune of "Head, Shoulders, Knees, and Toes." After learning about the structure of an insect, students learned about metamorphosis and the changes an insect goes through as it develops into an adult. Once students had a basic understanding of insects in general, they were taught to identify common species in Alaskan streams. At the end of class, students learned that insects were an important part of the food chain, the nutrient cycle, and very important to biological monitoring of streams.

While December was dedicated to insects in the classroom, students take monthly field trips with KWF staff to stream areas to monitor water quality as well as insect populations. Identifying the insects that live in a stream can help determine



whether the stream is polluted. A stream that doesn't have plenty of insect life in the winter is not likely to be a good place to go fishing in the summer. The salmon, steelhead, trout, and other fishes that folks love to catch and eat rely on insects as an important part of their diet.

So whether they're buzzing around in your face, or being caught in students' nets in area streams, insects are an important part of the Alaskan experience. We're just glad we only have to experience mosquito season once a year.

Kid's Corner: Some Buggy Tunes

Lyrics written by Dan Pascucci, KWF Education Coordinator

FROSTY THE SNOWMAN

a-quatic insects
Are cool and really neat
With their compound eyes and their antennae
and their legs and sticky feet.

a-quatic insects
Can help us rate our creek
Cause they let us know as they come and go
If our stream is strong or weak.

We've got to find some insects in
The creek when we go down,
For if our creek weren't healthy then
There'd be no bugs around.

a-quatic insects
Are as great as they can be,
And you children know in the ice and snow
That they're fun for you and me.

RUDOLPH THE RED-NOSED REINDEER

I like aquatic insects,
I think they are really fun,
And if you go stream dancing,
You would get a view of some.
All the aquatic insects,
Tell the health of our stream,
They never live in places,
Where conditions are too mean.

Then one chilly afternoon, we went down to see
All the things inside our creek,
and we got a real good peek
Of some aquatic insects,
And we shouted out with glee,
"I love aquatic insects,
They are fun for you and me."

SANTA CLAUS IS COMING TO TOWN

They just swim around, and no they don't fly
But they're still real cool, I'm telling you why
Insects help us check up on our stream

We're counting them up, we're checking them twice
We find 'em in water and under the ice
Insects help us check up on our stream

We catch them in a kicknet
We put them in a tray
We count them up and add them up
to make sure our stream's okay
I hope our stream's okay

WE WISH YOU A MERRY CHRISTMAS

Insects do metamorphosis
They change in metamorphosis,
They grow in metamorphosis,
And become adults there.

They start as an egg, and then they grow legs,
And into a pupa and they grow wings in there.

Insects do metamorphosis
They change in metamorphosis,
They grow in metamorphosis,
And become adults there.

All insects they change, so don't think it's strange
Whether nymph or egg or pupa, there's an adult in there.

DECK THE HALLS

Let's stream dance and find some insects,
Fa la la la la, la la la la
Here's some ones that we can expect,
Fa la la la la, la la la la
Caddisflies and stoneflies, mayflies,
Fa la la la la, la la la la
And there's others so don't be surprised,
Fa la la la la, la la la la

Catch them in a lovely kicknet,
Fa la la la la, la la la la
Don't fall in or you could get wet,
Fa la la la la, la la la la

Put them in a tray and count 'em,
Fa la la la la, la la la la
I'm so happy that we found 'em,
Fa la la la la, la la la la

JINGLE BELLS

Going to the creek,
With our class all in the cold,
In our nets we peek
To find the insects that they hold.
Dancing in the stream,
Collecting in a tray,
What fun it is to count the bugs
That we have caught today!
Insects rule, they are cool, they have got three parts.
The abdomen has digestive things
And the thorax holds the heart.
The head is neat, but not complete, without the antennae,
And then you've got a mouth
And a simple or complex eye.
When we find them in a stream,
They tell us if it's clean.
Well actually, they don't talk to us,
But you know what I mean.
We want to find a bunch!
The fish eat them for lunch.
I think that they are helpful, and
It's not a crazy hunch.
Insects rule, they are cool, we love them every day!
We want to keep a healthy stream, so they don't go away!

O, CHRISTMAS TREE

O Healthy Stream, O healthy stream,
You've got all kinds of insects
O healthy stream, O healthy stream
You get all of our respect,

We stream dance and we catch the guys,
And look at all the different flies;
O healthy stream, O healthy stream,
You really are amazing.

Northern Pike... a game changer!

By Robert Massengill, Fishery Biologist II
Alaska Department of Fish & Game

Since the early 1970's, when northern pike were first detected in Soldotna Creek, this illegally introduced predator has wreaked dramatic changes to the drainage's aquatic ecosystem. Northern pike are not native to Southcentral Alaska and their presence on the Kenai Peninsula is a game changer. Some of the lakes in the Soldotna Creek drainage – including East and West Mackey Lakes, Sevena Lake and Derks Lake – once supported thriving native rainbow trout fisheries. Some of these lakes also provided habitat for rearing coho salmon, Dolly Varden and fish like sticklebacks and sculpins. Another lake in the drainage, Union Lake, supported a popular fishery for stocked coho until the 1990's when pike took over. Today, the Mackey Lakes, Union Lake and Derks Lake contain nothing but northern pike. Pike have spread through most of the drainage from its headwaters at Tree Lake to its mouth at the Kenai River in Soldotna Creek Park.

In 2009 and 2010, the U.S. Fish and Wildlife Service operated a video weir near the Soldotna Creek mouth and, as suspected, northern pike were discovered leaving the creek both years and entering the Kenai River. This is a big deal.

The concern is that northern pike will continue spreading into new areas that offer suitable habitat, such as the Moose River. Currently, a sustaining population of pike has not been detected anywhere else in the Kenai River drainage. Pike flourish in shallow, calm, heavily vegetated waters like those of the Moose River drainage. Unfortunately, these waters provide critical habitat for native rainbow trout, Dolly Varden and rearing salmon. Should a sustainable population of invasive northern pike become established in the Moose River drainage, we can expect losses to these native fish populations.

Soldotna Creek has already been dramatically affected by invasive northern pike, as have Stormy Lake near Nikiski and scores of waters in the Susitna River drainage where some salmon populations are now imperiled. Kenai Peninsula residents have a choice to make: We can work to restore the Soldotna Creek drainage by removing northern pike, or accept the present and future losses that will occur as pike from Soldotna Creek spread. Please support agency efforts to restore the Soldotna Creek drainage by removing northern pike. For more information call the Alaska Department of Fish and Game in Soldotna at 262-9368.

Since the early 1970's, when northern pike were first detected in Soldotna Creek, this illegally introduced predator has wreaked dramatic changes to the drainage's aquatic ecosystem.



Photos: Top and middle, Alaska Department of Fish and Game; Bottom, stock photo



\$5,000 REWARD

for information leading to the conviction of someone introducing northern pike into Kenai Peninsula waters.



Northern Pike (*Esox lucius*)



To report illegal activity, call the Alaska Department of Fish & Game Invasive Species Hotline at 877-468-2748, Alaska Fish & Wildlife Safeguard at 800-478-3377 or Kenai National Wildlife Refuge at 907-362-7021.



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.



A BIRDING FESTIVAL HELPS SALMON????

By Ken Tarbox, Keen Eye Bird Club President
Retired Fish Biologist, AK Dept. Fish & Game

One has to be kidding to say birders help Kenai Peninsula salmon survive and prosper. How can that possibly be true? Well, stick with me as the tale of salmon and birds reveals a long history together.

The Kenai River is home to the largest run of sockeye (red) salmon in Cook Inlet, Alaska with an average of 3 million fish returning each year to spawn or be harvested by all user groups. Tens of thousands of chinook (king) salmon and coho (silver) salmon spawn every year in these productive glacial waters. Kenai River pink (humpy) salmon return in even years in the millions. Other rivers of the Kenai Peninsula produce millions of additional salmon.

Salmon require, at minimum, good clean water and a good food resource to survive and be sustainable. That means a system that is not degraded. A system (ecosystem), where the structural components (water, land, air, animals) are connected and functioning in sync.

Birds of the Kenai Peninsula are part of this system. A number of species depend on salmon for their food. Up to 20,000 herring gulls breed in the Kenai River estuary every spring and summer and feed on over 50 million salmon fry, juveniles, and smolt found through out the river. Ground up fish waste from the fish processing plants and personal use fishermen also provides a major food resource.

Arctic terns that have traveled 12,000 miles from South America to nest and raise young can be seen diving for fish in salmon streams of the Kenai Peninsula. Yellow legs feed on rearing salmon in the tidal sloughs of the Kenai and Kasilof River estuaries. American dippers, with their bobbing up and down body, feed on juvenile salmon in a number of smaller streams.

Marine birds should not be ignored. As salmon leave their river of origin for their marine journey, sea birds feast on their abundance, including puffins, murres and kittiwakes.

One would think woodland and riparian (near water) birds would have no connection to salmon. However, adult salmon die after spawning. Bears and scavengers carry their bodies inland to feed. Thus, marine nutrients locked in salmon flesh, from living in the sea, become available for inland vegetation to grow and prosper. Insects feed on dead salmon, and birds found away from the water's edge benefit from this increased productivity.

Over 275 species of birds can be found on the Kenai Peninsula. Their connection to salmon cannot be denied.



Bird watchers at the Kenai River estuary in May 2011 enjoying the viewing opportunities and the tremendous system at work.

What does this have to do with a birding festival and birders? It is a simple answer. Birders are aware of these connections and understand that no single species can survive alone. The connectivity of these species is important to all users of the resource. When something or someone threatens salmon productivity, by altering habitat or ecosystem functions, birders join with others to fight for salmon sustainability. They educated the general public, speak out at community meetings, and join organizations like the Kenai Watershed Forum.

How do they know about all of these important issues or biological concepts? Obviously from a variety of sources, but education at birding festivals is one important avenue. Education can take the form of lectures and workshops or, more importantly, getting out in the field and observing these system interactions in person with local experts. They become active and engaged.



Wildlife and bird viewing platform near the mouth of the Kenai River.

Aldo Leopold summed it up for all of us:

"The good life of any river may depend on the perception of its music; and the preservation of some music to perceive."

"A thing is right when it tends to preserve the integrity, the stability, and beauty of the biotic community. It is wrong when it tends otherwise."

"That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics."

Our new Headquarters

Kenai Watershed Forum recently moved into our new building in Soldotna Creek Park. Known as the Soberg Building, this location will serve as our headquarters and hub for watershed education, restoration, and research across the Kenai Peninsula. This is a monumental event in the history of Kenai Watershed Forum and conservation efforts across the Kenai. We would like to express our sincerest appreciation to the individuals, businesses, agencies, and industry leaders that supported this effort. Your support is an investment in the future health of our watersheds! Thank you!



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with the Kenai River. The group focused their efforts towards social/recreational issues and biological/habitat issues. The Kenai River Task Force was important because it represented one of the first comprehensive gatherings of regulatory agencies and the public to discuss their common concern for the Kenai River. This model becomes a standard format for all future planning efforts along the river.

The Task Force's report was also one of the first documents to publicly recognize impacts to salmon habitat caused by human use and recommends a comprehensive agency approach to the management of the watershed. As a result of the task force recommendations, the Alaska Legislature passed a resolution recognizing the Kenai River as an important natural resource that must be protected and

preserved for the maximum benefit of all Alaskans. The resolution refers to river impacts such as stream bank development and increasing public use as activities that endanger fish habitat. It recommended an interagency effort be started to develop a comprehensive study of the problems that the river faces.

Legislation establishing the Kenai River Special Management Area (KRSMA) was introduced to the state legislature in 1984. The legislation, SB 417, placed management of the KRSMA with the Department of Natural Resources, Division of Parks and Outdoor Recreation (DNR/DPOR). The legislation also contained several new concepts in state park land management. It created the first state park that was primarily focused on the water and fish/wildlife habitats of the Kenai River. While state lands were included in the legislation, the primary focus of the legislation is the protection and perpetuation of fish and wildlife habitat. This was a revolutionary management mandate since most State Parks along the road systems were developed for maximum use. The Kenai Peninsula Borough (KPB) Assembly reviewed the legislation and KPB Assembly Resolution 84-58 proposed several changes to the language in the legislation. The primary change was a suggestion that "the commissioner of DNR and the Kenai Peninsula Borough shall develop and adopt a comprehensive management plan for the KRSMA.

Other changes proposed that the DNR and the KPB would periodically review and amend the plan, the KPB would be a part of the public involvement process, and the commissioner would include the KPB and

municipalities in any cooperative management agreements. These amendments were included in the legislation and the KRSMA was established. This was another important step because it had the potential to develop regulations that would protect the riparian area managed by the municipalities and KPB and the river managed by the State.



Aerial photograph of the Big Eddy area during the fall flood of 1995. After the flood the KPB assembly went on to establish the Kenai River tax credit by KPB Ordinance 95-32: An Ordinance Establishing the Kenai River System Habitat Protection Tax Credit. This ordinance provided tax credits as a partial reimbursement for habitat protection or restoration projects.

The final 1986 Kenai River Comprehensive Management Plan (KRCMP) recommended the creation of an ordinance establishing a two tiered "Kenai River Conservancy District" (KRCD) adjacent to the Kenai River, its tributaries and encompassing lands. The district would include a Protection Area made up of riparian ecosystems, contiguous wetlands, and other habitats within the 100 year floodplain. The Conservation

Buffer would extend 300 horizontal feet behind the outer boundary of the Protection Area. The purpose of the Protection Area was to allow the Kenai River to function naturally and enable fish and wildlife resources to maintain critical life functions and productivity. The Conservation Buffer provided a vegetated buffer for the Protection Area. Compatible/incompatible uses for the KRCD as a whole were developed and compatible/incompatible uses

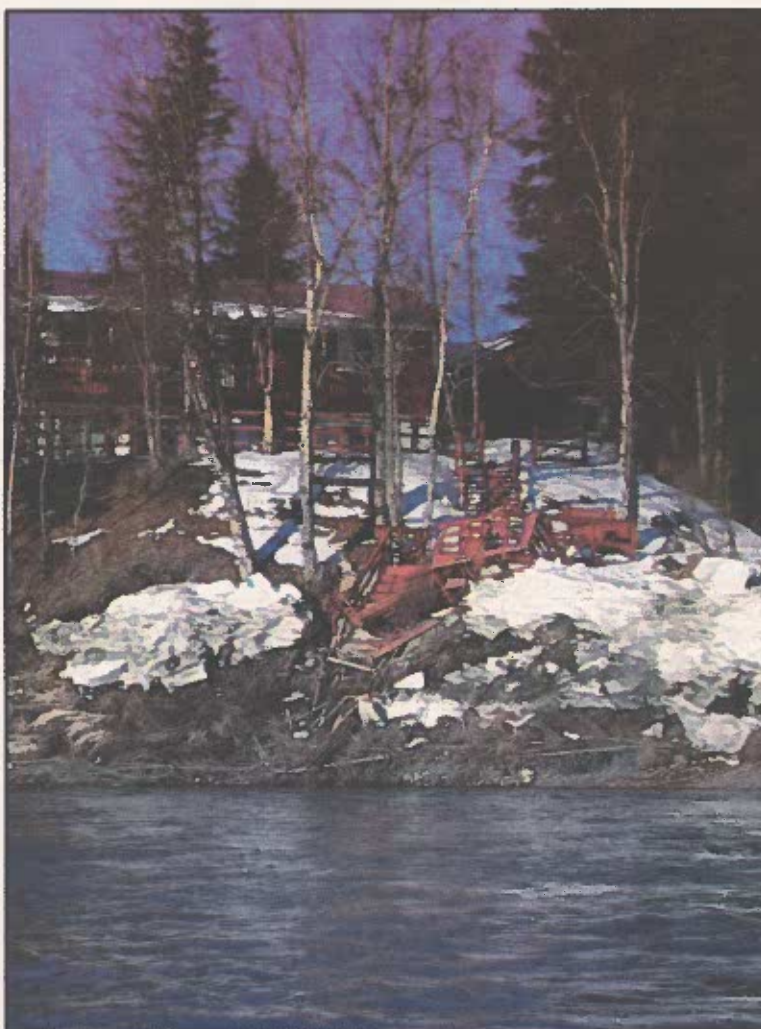
within the two zones were also developed. The KRCD would not supersede any more restrictive ordinances, codes, statutes, or regulations that currently apply to the land.

Additional recommendations included the establishment of a KRCD Planning Commission and a Riparian Habitat Protection Ordinance complete with tax incentives.

Needless to say, this recommendation was never adopted because it was considered too severe in relation to the public's perception of the resource issues the Kenai River was facing. But it kick started the first discussions and recommendations regarding riparian habitat protection and related tax credits and exemptions.

In the period between 1988 and 1990 the KPB Planning Commission and Assembly developed and approved the KPB Coastal Management Plan and started the development of a new comprehensive management plan. The City of Soldotna introduced the concept of an overlay district as a zoning method for the Kenai River in 1992.

During the 1990's Alaska Department of Fish and Game's research started publishing more information about the early and late run Chinook salmon and other salmon species in the



Photograph documenting property damage in February 2007, shortly after the Kenai River experienced one of the largest winter floods in years.

Kenai River. Research revealed that there are specific "races" of salmon and that all of the species of salmon in the Kenai River spawn and rear in different habitats. The importance of the riparian zone along the Kenai River became even more evident because all juvenile fish use the area for rearing or migration. Continued development of nearshore areas without vegetation to slow water velocities for juvenile fish would seriously impact the juvenile salmon. Based on this information, the resource agencies began focusing on bank restoration and healthy riparian vegetation in permits for development projects.

By 1994 the KPB was considering adopting zoning similar to the City of Soldotna's and KPB Ordinance 94-52: Establishing the Kenai River Overlay District Conditional Use Permit Requirements and Setting Forth Conditional Use Permit Approval Criteria was developed. The draft ordinance created a Kenai River Overlay District that applied to all lands located between the waterline of the Kenai River and 150 feet away from the river or from the waterline to the line that defines the 100 year floodplain. It also established special requirements for the development and use of land adjacent to the Kenai River, tributaries of the Kenai River, Skilak Lake and Kenai Lake. In addition, the overlay district gave the KPB mayor, with Assembly consent, the authority to enter into inter governmental agreements with municipalities and state/federal entities for joint administration and enforcement. It also allowed the KPB to assume delegate responsibility by cooperative agreement with state/federal agencies for a one-stop general permitting authority for the lands affected by the overlay district. The intent of this section was to eliminate duplication of enforcement personnel and laws, provide accountability, and develop intergovernmental financial assistance to help the KPB administer the ordinance. KPB Ordinance 94-52 required use permits, created a bank area zone and a protection area zone, and described the prohibited uses and uses requiring a permit. It outlined the permit procedure, public notice requirements, permit issuance criteria, defined nonconformity, defined variances, and set penalties. It also charged the Planning Commission with ensuring that all streets, easements, and pedestrian ways are designed to minimize degradation of the bank and protection areas. The Assembly took public comment on the ordinance and much of the public comment was against the amount of land that was regulated in this ordinance. After several additional KPB Assembly meetings, a final motion was made to enact the ordinance and it failed. The meeting adjourned and Ordinance 94-52 was not enacted. This ordinance was important because it was the first KPB Assembly movement towards zoning adjacent to the Kenai River and the discussions about a one-stop permit center.

In June of 1995, the KPB Assembly established a round table group called the Kenai River Working Group (KRWG). Property owners, municipalities, agencies, NGO's, and fishery groups were all represented. Federal, state, and KPB planning department staff took on advisory roles. The group recommended a 50' habitat protection area, prohibition of uses that effect riparian habitat, allowable structures in the habitat protection area, floodplain development permits and the conditional use process. The group also recommended that the KPB should take an active leadership role in resolving the fish habitat degradation causes identified in its report. The recommendations of the KRWG are not earth shattering, but it once again shows the value of bringing all the stakeholders table. At the end of the day, all the issues were much better understood and everyone learned more and realized how far they had to go.

The KRWG report was delivered to the Assembly right before the 1995 Fall Kenai River Flood. The Kenai River was in flood stage for over two weeks and all agency resources were pulled together to respond to the emergency. This was the unofficial establishment of the Kenai River Center (now called Gilman River Center). Agency staff was available to answer questions about permits and help the public determine what needed to be done and how to do it. It was a luxury to have habitat biologists, engineers, emergency response staff and field rangers all in one place.

After the flood the KPB assembly went on to establish the Kenai River tax credit by KPB Ordinance 95-32: An Ordinance Establishing the Kenai River System Habitat Protection Tax Credit. This ordinance provided tax credits as a partial reimbursement for habitat protection or restoration projects. The KPB Administration considered this to be the first step towards gaining acceptance of habitat protection in the Kenai River drainage. On February 20, 1996 Ordinance 96-06: Establishing Areas for Regulation of Activities for Kenai River Habitat Protection and Enacting Land and Use Restrictions Within Those Areas was introduced. When it was finally enacted as KPB Ordinance 21.18 Anadromous Streams Habitat Protection it protected riparian habitat within fifty feet of specified anadromous streams. The regulated riparian area is referred to as the protection area. The ordinance lists "allowed activities" that are considered less destructive to riparian areas than past unregulated practices. The ordinance minimizes the footprint of permitted near shore structures, e.g. elevated light-penetrating gratwalks, stairways, etc. to reduce impact to riparian vegetation. It also allows for conditional use permits to be considered by the KPB Planning Commission for activities that are prohibited by the ordinance. The Kenai River and its tributaries are well known for their Chinook salmon resources and other salmon/steelhead rivers such as the Kaslof River, Anchor River, Ninilchik River, Stariski Creek and Deep Creek were now included in the Habitat Protection Ordinance. The development of this ordinance was the first step in providing a vehicle for the resource agencies to interface with private property owners throughout the Kenai Peninsula Borough.

Suzanne Fisler worked for Alaska State Parks, primarily on the Kenai River and has observed the many regulatory changes that have taken place concerning Kenai Peninsula Borough streams over the years. This is the first in a 2-part series in which she recounts the history of regulations affecting development on and around the Kenai River and other KPB anadromous streams.

KPB Ordinance 21.18 Anadromous Streams Habitat Protection was enacted to protect riparian habitat within fifty feet of specified anadromous streams. The regulated riparian area is referred to as the protection area. In 2009 KWF worked on a grant to evaluate the effectiveness of the ordinance.

A GIS database for the Kenai River below Skilak Lake was created and includes 50', 100' and 300' buffers on either side of the river (Figures 1 & 2), footprints from 1998 and 2002/03 imagery, and photos collected from the river from '07-'09 providing a river view perspective of structures (Figures 2 & 3). Permits issued are also tied to individual parcels adjacent to the river.

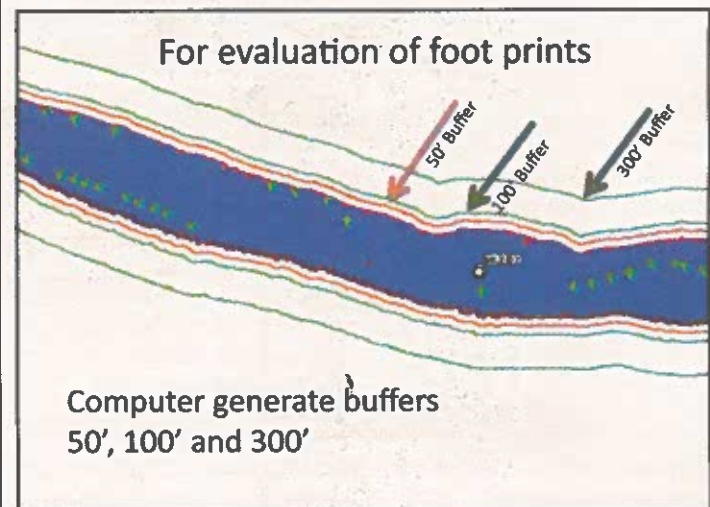


Figure 1: Buffers generated from imagery on either side of the Kenai River below Skilak.

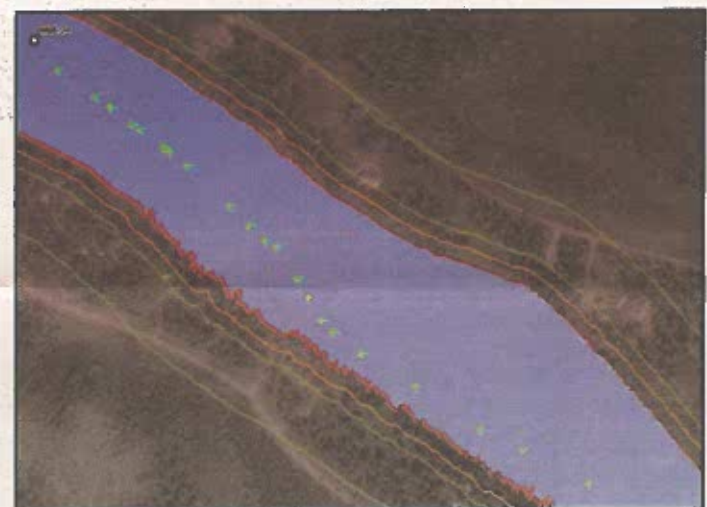


Figure 2: 2002/03 imagery used to extract footprints within the buffers. Also showing track of boat collecting pictures during summer 2009.



Figure 3: Boat track and direction of photos of structures collected during the 2009 field season.

KWF Membership - Help shape our Future

Thank you from the bottom of our hearts!

It is more important than ever to become engaged and help shape the future of our watersheds. Everyone that lives and plays on the Kenai Peninsula is responsible for its future. Membership in the Kenai Watershed Forum gives you an opportunity to help shape the future of our watersheds and celebrate KWF's ongoing commitment to healthy natural resources. Please participate and support KWF through our membership drive; become part of the largest community united by a common mission of "working together for healthy watersheds on the Kenai Peninsula."

We encourage you do your part and make a financial contribution to KWF. We continue to provide quality education, restoration, and research to the residents and visitors to the Kenai Peninsula and need your help to continue serving our communities.



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Planned Giving - Think of the Kenai Watershed Forum when preparing your long-term financial plans. A bequest is a wonderful way to leave a legacy and ensure our watersheds are healthy for generations. Please call us for more information about estate planning options, 907-260-5449.

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Volunteer - There are many ways you can help preserve the health of our watersheds. We have volunteer opportunities year-round and can always use an extra set of hands. Call us at 907-260-5449 for more information about current volunteer opportunities.