



ALASKA DEPARTMENT OF FISH AND GAME
Public Meetings Scheduled to Consider
Soldotna Creek Drainage Northern Pike Issue
March 2012

Interest: I have lived and still live in the Soldotna Creek area and have children and grandchildren who fish, play, swim and enjoy the Soldotna Creek Drainage. I am interested in environmentally safe solutions to problems which will affect my children and grandchildren.

Thoughts on Pike Presence: The introduction of pike into the Soldotna Creek Drainage has created a change in the ecological habitat which warrants sensitive, intense and **really open and honest** dialogue by Fish and Game officials.

Pike Removal Thoughts:

1. Presentations regarding rotenone use on waterways seem to minimize the chemical effects of the toxin on the habitat while maximizing the use of rotenone as the prime mechanism for eliminating pike from the Soldotna Creek Drainage. Information regarding thousands of fish being killed outside the intended treatment area of Lake Davis was not presented nor the fact that noninvasive fish were killed 2.4 miles downstream in a Missouri rotenone treatment. (Has anyone considered on the basis of these other escapements that Rotenone could get into the Kenai River? Using potassium permanganate and adjusting the rotenone concentration to protect the Kenai is a great idea in a closed system. But in an open system such as Soldotna Creek, protecting the Kenai River is inexact at best.)
2. Rotenone has been found to "persist in cold environments where it might remain at levels causing effects for 160 days." A reference at the Presentation to rotenone being administered when it is warm omits the fact that Alaska summer waterways are still cold environments even in the summer.
3. Not presented was the MSDS statement for rotenone which states, "To the best of our knowledge, the chemical, physical and toxicological properties (of rotenone) have not been thoroughly investigated." It was said that lab animals were given **huge** amounts of rotenone to exhibit Parkinson's disease symptoms. Research has shown that rotenone in **undetectable levels** caused Parkinson's disease in lab rats. Thus, the statement presented is just not true.
4. Information about rotenone use needing to be away from potable water sources was another area not completely presented.
5. Rotenone is used to cause Parkinson's disease in lab animals. During the presentation on pike and rotenone usage, it was emphasized that rotenone was used in huge quantities to cause Parkinson's disease when studies show that rotenone at undetectable levels caused Parkinson's disease in lab rats. (Obviously there have been no lab tests on humans to gauge human levels needed to introduce Parkinson's symptoms.)

Concerns: Fish and Game's presentation seemed subtly slanted towards presenting an argument for using rotenone in the Soldotna Creek Drainage. (see above)

1. Hiring an outside firm (which utilizes public relations strategies) with tax dollars to run these seeming slanted public meetings is an affront to those citizens not in favor of rotenone usage.
2. I would like the above five concerns addressed and included in the report and an ecologically sound solution be found to this issue.

Sara Wilson Doyle
USKH
351 West Parks Highway
Suite 200
Wasilla, Alaska 99654

3/25/12

Here are my comments on the scoping meeting about the pike problem in the Kenai River that was held at the Kenai National Wildlife Refuge headquarters on March 22.

As a semi-retired fishery biologist I have been concerned about the impact northern pike could have on the Kenai River sport fishery for coho salmon if reproducing pike populations become established in the Beaver Creek or Moose River watersheds. The Moose River is estimated to produce one quarter of the coho salmon that return to the Kenai River. Beaver Lake, near the headwaters of Beaver Creek, is a rearing area for coho salmon that also contribute to the Kenai River coho salmon run.

Soldotna Creek has been and continues to be the source of the few pike that have been captured or reported in the Kenai River watershed. If nothing is done to remove pike from Soldotna Creek it is only a matter of time before reproducing pike populations will become established in additional Kenai River tributaries.

I strongly support ADF&G efforts to remove pike from the Soldotna Creek basin.

I would like to take this opportunity to suggest that the ADF&G Sport Fish Division investigate the feasibility of a water level control structure at the outlet of Sevena Lake. Such a structure could be used to manipulate water levels to leave shallow pike spawning areas high and dry. Such a structure may also be useful if the State decides to use rotenone to eliminate the Sevena Lake pike population.

The precedent for a water level control structure has already been established on the Kenai Peninsula. The Cook Inlet Aquaculture Association operates a water level control structure at the outlet of Daniels Lake. This structure is used to create high water levels in the outlet stream to enable lake spawning sockeye salmon to reach Daniels Lake from Bishop Creek.

Jack Dean
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Sterling, Alaska 99672
907/262 9769
songbird2@alaska.net

From: Dwight Kramer [<mailto:dwimar@gci.net>]
Sent: Friday, March 30, 2012 9:12 AM
To: Massengill, Robert L (DFG)
Cc: Begich, Robert N (DFG); Pawluk, Jason A (DFG)
Subject: Soldotna Cr. Pike

Hello Rob,

Sorry that I was unable to attend the recent Soldotna Cr. Pike scoping meetings. Family matters precluded my attendance during that time frame. One of our Kenai Area Fisherman's Coalition (KAFC) Board of Directors, Jack Dean, was able to attend and forwarded us a copy of his letter to Ms. Doyle of USKH stating his reasons for supporting ADF&G's efforts to remove Pike from the Soldotna Cr. basin.

Please be aware that KAFC, as an organization, also lends our support to this very critical resource effort. As you know, we are a science based organization with eight retired fishery biologists on our BOD. We have been following the Soldotna Cr. Pike issue for quite sometime and understand the implications to Kenai River juvenile fish and resident species stocks if this issue isn't resolved sooner rather than later. We have seen the devastation unchecked pike stocks have caused in other Cook Inlet regions to salmon stocks and resident species over the last decade and recognize the importance of invasive pike removal in instances where they jeopardize the rearing capabilities of other native stocks.

I would like to thank ADF&G and everyone who is involved in this effort. The department's pro-active stance on Kenai Peninsula Pike issues is very much appreciated by anglers and everyone concerned about the future of our resources. Please forward this message to Ms. Doyle as well.

Thanks Again,

Dwight Kramer, KAFC Chairman
283-1054

-----Original Message-----

From: Ricky Gease [<mailto:ricky@krsa.com>]

Sent: Wednesday, September 12, 2012 1:14 PM

To: Massengill, Robert L (DFG); 'mark_laker@fws.gov'; McKinley, Timothy R (DFG); Pawluk, Jason A (DFG); Cope, Jenny L (DFG); Eskelin, Anthony A (DFG); Strait, Jerry R (DFG); Reimer, Adam M (DFG); Begich, Robert N (DFG); Perschbacher, Jeffrey T (DFG); Berkhahn, Patricia G (DFG); Litchfield, Virginia P (DFG); 'matt_bowser@fws.gov'; 'toby_burke@fws.gov'; 'todd_eskelin@fws.gov'; Douglas.Palmer@fws.gov; Ken Gates; Cheryl.Anderson@fws.gov; 'jeffry_anderson@fws.gov'; 'james_boersma@fws.gov'; Dunker, Kristine J (DFG); Erickson, Jack W (DFG); Bosch, Daniel E (DFG); Craig, Adam J (DFG); Repetto, Skip L (DFG); Rutz, David S (DFG); Jacobson, Cody J (DFG); Pratt, Charles T (DFG); Vangelder, Timothy J (DFG); Glick, William J (DFG); Hatfield, Mark D (DFG); Philip.Johnson@fws.gov; Neustel, Raye A (DFG); Amanda.zoe.Alaniz@gmail.com; Jack Dean (songbird2@alaska.net); Tesch, Andrea H (DFG); briankarefinlayson@att.net; Robert Ruffner; Branden Bornemann; Blackwell, Jack D (DNR); John.M.Morton@fws.gov; Sara Wilson Doyle; Hasbrouck, James J (DFG)

Subject: RE: Thank you!

Rob;

From KRSA, great job and excellent work in containing the spread of Northern Pike on the Kenai Peninsula. Onto the Soldotna Creek drainage!

All the best,

Ricky Gease
Executive Director
Kenai River Sportfishing Association
224 Kenai Avenue, Suite 102
Soldotna, Alaska 99669
Office: 907-262-8588
Cell: 907-398-2260
Fax: 907-262-8582



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Give Us Your Input Please answer the questions below and leave this form with the meeting facilitator today. Alternately, provide your comments by **April 10th, 2012** to the contact address at the bottom of the page.

- What is your interest in Soldotna Creek Drainage (e.g., fishing, neighbor)
 - Life time resident ~ lived 48 years on Kenai River + watershed
 - Deeply concerned about well being + balance of entire watershed
 - I take my stewardship of this place seriously →
- What are your thoughts around northern pike's presence in Soldotna Creek Drainage?
 - As a child I remember overhearing conversations about their introduction → well meaning, uninformed people
 - The Mulligans on Severna Lake, were family friends - saw impacts on that lake →
 - It's critical to act NOW or we will end up like the Susitna drainage

- What are your thoughts about removing northern pike from Soldotna Creek Drainage?

Critically necessary!
Time is of the essence.

- Are there any technical questions or issues of concern you would like addressed at future public venues or in the final scoping report?

I'm surprised at the level of misinformation and general lack of education.

Wide spread education campaign is necessary.

Rob did great - Tim's presentations are equally effective
→ Get in the schools ←

Feel free to use the back of this form to provide any further input, comments or questions.

Mail: Sara Wilson Doyle, USKH, 351 West Parks Highway, Suite 200 Wasilla, Alaska 99654

Email: swdoyle@uskh.com Fax: 907-376-7819 Phone: 888.706.8754

The experiences of the people who are yet to come here
as our children + future generations deserve to
inherit an intact, healthy system.

This is a man made disaster -

- Inaction is NOT an option
- Critical to act now

The development of the AFDF plan is insightful,
thoughtful, technically sound, well researched
and without question our best bet

We are in an unfortunate situation, but its one
that will not get better unless aggressively,
addressed. ~~This is introduced by~~

I support the proposed plan of retinone introduction



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lived here all my life - VERY IMPORTANT

- What are your thoughts around northern pike's presence in Soldotna Creek Drainage?

we need to get rid of them asap -
for future generations, + to save our
River

- What are your thoughts about removing northern pike from Soldotna Creek Drainage?

fox it! come to my lake anytime
(w. Mackey)

- Are there any technical questions or issues of concern you would like addressed at future public venues or in the final scoping report?

NO, we support you - great presentation

Feel free to use the back of this form to provide any further input, comments or questions.

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- What is your interest in Soldotna Creek Drainage (c.g., fishing, neighbor)
To bring back native species
- What are your thoughts around northern pike's presence in Soldotna Creek Drainage?
Kill all pike
You have my support, I like your presentation and really encourage the retention
- What are your thoughts about removing northern pike from Soldotna Creek Drainage?
Retention all lakes & creek.
- Are there any technical questions or issues of concern you would like addressed at future public venues or in the final scoping report?

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- What is your interest in Soldotna Creek Drainage (e.g., fishing, neighbor)
Stakeholder, BABY MARY'S LAKE
- What are your thoughts around northern pike's presence in Soldotna Creek Drainage?
THEY NEED TO BE GONE, OR AT LEAST LIMITED IF THAT IS POSSIBLE
- What are your thoughts about removing northern pike from Soldotna Creek Drainage?
I'M IN SUPPORT OF ACTION
- Are there any technical questions or issues of concern you would like addressed at future public venues or in the final scoping report?

Feel free to use the back of this form to provide any further input, comments or questions.

Mail: Sara Wilson Doyle, USKH, 351 West Parks Highway, Suite 200 Wasilla, Alaska 99654

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- What is your interest in Soldotna Creek Drainage (e.g., fishing, neighbor)
mainly interested in what can be done to eradicate
the pike in the Mackey lakes, I live on E. Mackey.
- What are your thoughts around northern pike's presence in Soldotna Creek Drainage?
Need to eradicate them.
- What are your thoughts about removing northern pike from Soldotna Creek Drainage?
see above.
- Are there any technical questions or issues of concern you would like addressed at future public venues or in the final scoping report?
Methods avoid + impact to non-target
animals near/long term.

Feel free to use the back of this form to provide any further input, comments or questions.

Mall: Sara Wilson Doyle, USKH, 351 West Parks Highway, Suite 200 Wasilla, Alaska 99654

Email: swdoyle@uskh.com Fax: 907-376-7819 Phone: 888.706.8764



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- What is your interest in Soldotna Creek Drainage (e.g., fishing, neighbor)
Own home on Denise Lake.
- What are your thoughts around northern pike's presence in Soldotna Creek Drainage?
They need to be removed to prevent colonizing Kenai and Moose rivers.
- What are your thoughts about removing northern pike from Soldotna Creek Drainage?
Yes, remove them
- Are there any technical questions or issues of concern you would like addressed at future public venues or in the final scoping report? *Can we get 100% removal?*

Feel free to use the back of this form to provide any further input, comments or questions.

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- What is your interest in Soldotna Creek Drainage (e.g., fishing, neighbor)

I live on West Mackey Lake.

- What are your thoughts around northern pike's presence in Soldotna Creek Drainage?

*Kids like to fish for them.
I have no other reason to keep them
AROUND.*

- What are your thoughts about removing northern pike from Soldotna Creek Drainage?

*Go For It,
I worry about Pike taking over the
Kenai River someday*

- Are there any technical questions or issues of concern you would like addressed at future public venues or in the final scoping report?

*~~NO~~
CANCER concerns for ROTENONE
What happens to all the dead fish? Do
they float to the top. If other animals eat*

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them, are they safe?

Public Comments Received During Comments ADEC Permit and NEPA

Alaska Department of Environmental Conservation Pesticide Use Permit:

A part of the ADEC permitting process for this project involved officially announcing and conducting a 30-day public comment period. This commenting period was open between April 22nd and May 22nd, 2014. Only one comment was received (Appendix 1). This comment was from an individual who remains uncomfortable with the use of pesticides and has actively participated in all public meetings for northern pike work in the last five years on the Kenai Peninsula, including the public scoping process for the Soldotna Creek project.

ADEC, after weighing ADF&G's permit application package and this comment, issued the Pesticide Use Permit on May 23, 2014. There was a 40-day stay during which the commenting public had an opportunity to contest the DEC's decision. No further comments were submitted during this stay.

National Environmental Policy Act:

As part of the NEPA process for this project, ADF&G prepared a detailed environmental assessment and posted it on ADF&G's website for public review. The NEPA process also requires a 30-day comment period. For simplicity for the public, ADF&G ran the comment periods for the ADEC permit and NEPA concurrently. ADF&G advertised the comment period in the local newspaper, went door to door to ~50 residences, called households identified during public scoping as having a specific interest in the project, sent a courtesy letter to ~75 landowners, e-mailed stakeholders, and issued flyers at the Kenai Peninsula Sportsman's show to let the public know about the comment period. One comment was submitted to the USFWS against the project and was the same comment submitted to the ADEC for their review in their Pesticide Use Permit Decision (Appendix 1). The only other comment received was a brief e-mail in support of the project (Appendix 2).

The USFWS, after reviewing the environmental assessment and the public comments received issued a "Finding of No Significant Impact" on August 29, 2014 concluding the NEPA process. As per NEPA procedure, they announced their decision in a press release and on their website.

APPENDIX 2 (Comment submitted to both the DEC for the pesticide use permit and to the USFWS for NEPA)

Date: 5/18/2014

Re: ADFG Plan to Place Rotenone in Union Lake, East and West Mackey Lake, Derks Lake

Attention: Rebecca Colvin , Department of Environmental Conservation

I write to express my concern and opposition to the ADFG plans to treat Union Lake, East and West Mackey Lake and Derks Lake with the neurotoxin rotenone for the following reasons.

TIMING: The ADFG notification to landowners states that rotenone breaks down “naturally from sunlight and warm temperatures.” Yet, ADFG is proposing to “treat” Union Lake, East and West Mackey Lake and Derks Lake in October. Sunlight and warm temperatures are not typical of October but rather frozen lakes are the norm. The EPA states that “rotenone can be quite persistent in cold environments where it might remain at levels causing effects for approximately 160 days at maximum labeled treatment concentrations. This application timeline is contrary to approved procedures for use.

POTABLE WATER RESOURCES: There are wells around the Mackey Lakes, for example: as close as 110 feet. EPA guidelines state that a restriction against the use of rotenone within ½ mile of potable water must be included on rotenone labels. While ADFG personnel state that rotenone or a by-product trichloroethylene (a carcinogen) will not reach wells, their own literature uses the words “unlikely” and “slight.” ADFG’s plan will purposely inhibit rotenone’s degradation and dispersion and maximize and chance for groundwater leaching of this toxic chemical, the associated synergists and the numerous degradation products,

ROTENONE THE NEUROTOXIN: The MSDs sheet for rotenone states that “to the best of our knowledge, the chemical, physical, and toxicological properties (of rotenone) have not been thoroughly studied.” What is known that a 2010 study of mice administered rotenone intra-gastrically demonstrated Parkinson’s type changes in the usual locations of the CNS despite the level of rotenone being BELOW detectable limits. In addition, NIH in January 2011 associated the use of pesticides including rotenone as associated with Parkinson’s disease. Rotenone is also an accepted means of **inducing** Parkinson’s disease in studies in labs across the world!

While I can understand ADFG’s concern with the introduction of pike to our waterways, the introduction of another foreign (and toxic) entity such as rotenone might be even more devastating.

Carolyn Cannava

P.O. Box 502

Soldotna, Alaska 99669

APPENDIX 3 (Comment e-mailed to the USFWS for NEPA)

Received the letter attached to my front door to Waterfront Landowner.
I am delighted that this is being done on East Mackey Lake.

Thank you for the information.

Mary Lou Hendricks
41930 Dolly Varden Way
Soldotna, AK 99669

Sent from Windows Mail