

# Soldotna Creek Northern Pike Eradication



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Division of Sport Fish



**Northern pike are an invasive species  
on the Kenai Peninsula**

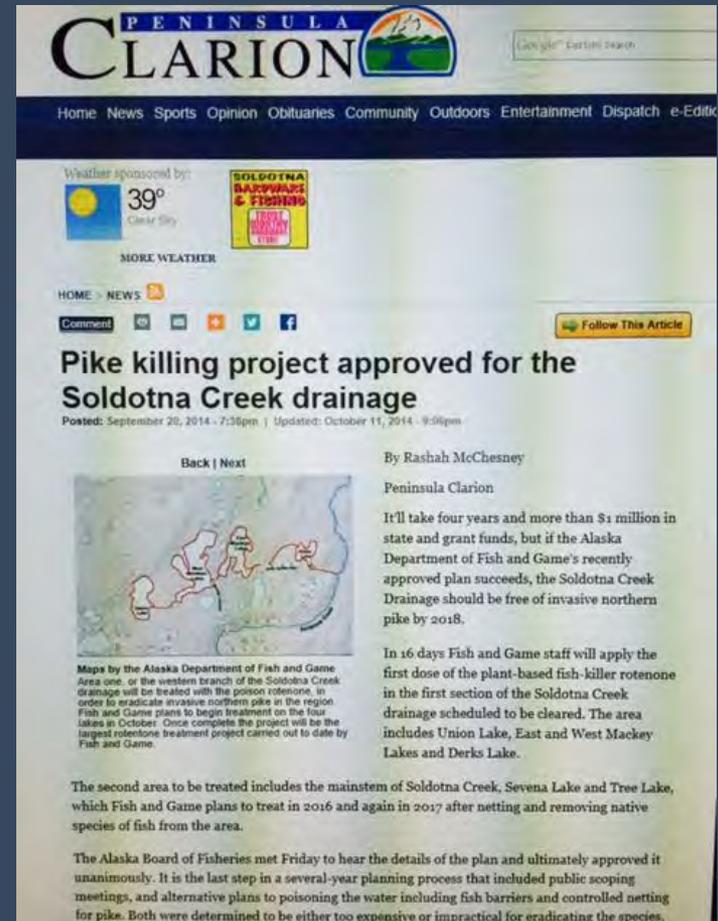
# Rotenone Treatments

- One of only two proven methods for eradicating fish
- Comes from tropical plant roots
- Used in the U.S. since 1930s
- Inhibits cellular respiration
- Absorbed through gills
- Used in small concentrations
- Not harmful to mammals or birds
- Commonly used for fisheries management



# Public Involvement

- National Environmental Policy Act Review (NEPA)
- AK Dept. Environmental Conservation Pesticide Use Permit
- Alaska Pollutant Discharge Elimination System Permit
- Public scoping process and public meeting series with USKH
- Mailings, Signs, and Media Articles
- Door-to door visits with lake residents



The image is a screenshot of a news article from the Peninsula Clarion website. The article is titled "Pike killing project approved for the Soldotna Creek drainage" and is dated September 20, 2014. The author is Rashah McChesney. The article discusses a project by the Alaska Department of Fish and Game to eradicate invasive northern pike in the Soldotna Creek drainage area. The project involves treating the western branch of the Soldotna Creek drainage with poison rotenone in October. The article also mentions that the project will be the largest rotenone treatment project carried out to date by Fish and Game. The article is accompanied by a map of the Soldotna Creek drainage area and a "Follow This Article" button.

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## Pike killing project approved for the Soldotna Creek drainage

Posted: September 20, 2014 - 7:36pm | Updated: October 11, 2014 - 9:56pm

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By Rashah McChesney  
Peninsula Clarion

It'll take four years and more than \$1 million in state and grant funds, but if the Alaska Department of Fish and Game's recently approved plan succeeds, the Soldotna Creek Drainage should be free of invasive northern pike by 2018.

In 16 days Fish and Game staff will apply the first dose of the plant-based fish-killer rotenone in the first section of the Soldotna Creek drainage scheduled to be cleared. The area includes Union Lake, East and West Mackey Lakes and Derks Lake.

The second area to be treated includes the mainstem of Soldotna Creek, Sevena Lake and Tree Lake, which Fish and Game plans to treat in 2016 and again in 2017 after netting and removing native species of fish from the area.

The Alaska Board of Fisheries met Friday to hear the details of the plan and ultimately approved it unanimously. It is the last step in a several-year planning process that included public scoping meetings, and alternative plans to poisoning the water including fish barriers and controlled netting for pike. Both were determined to be either too expensive or impractical for eradicating the species,

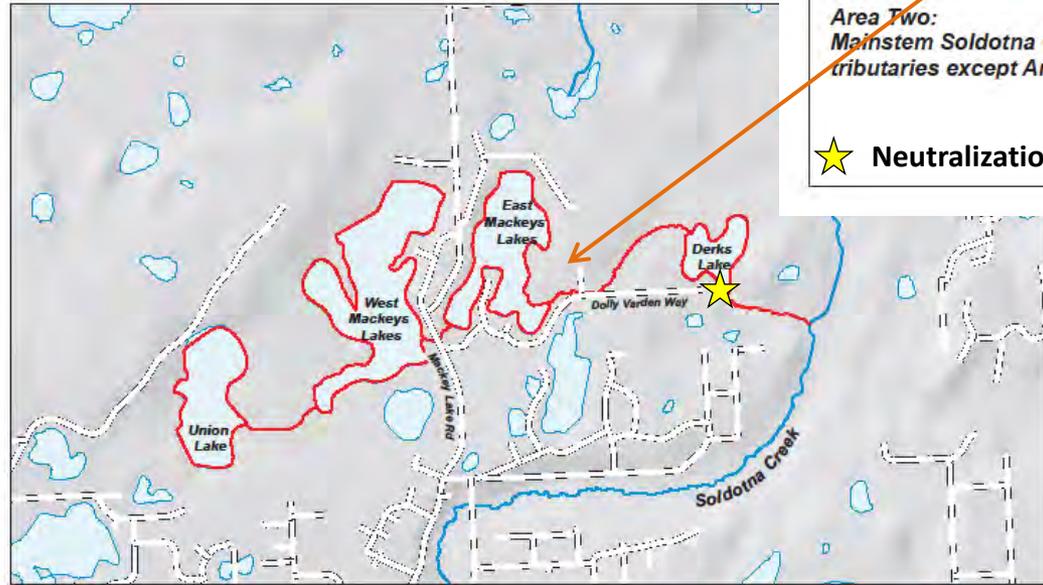
# Project Design

## Soldotna Creek Treatment Areas

### Area 1

Union Lake, West Mackeys Lake,  
East Mackeys Lake, Derks Lake

Treatment Timing: 2014



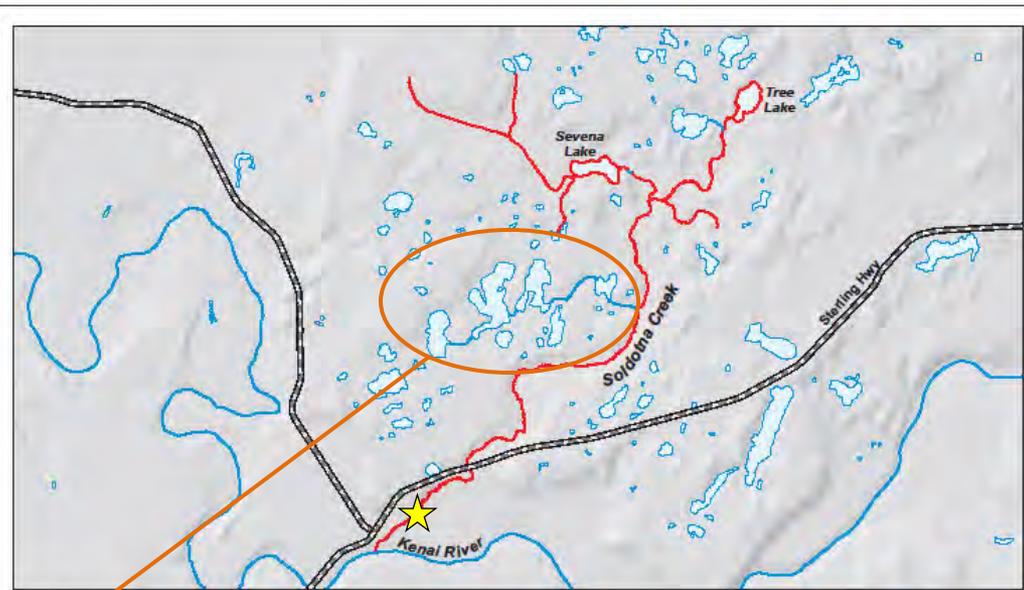
**Area One:**  
Western Branch of the  
Soldotna Creek Drainage

★ Neutralization Station



★ Neutralization Station

**Area Two:**  
Mainstem Soldotna Creek and all  
tributaries except Area One



### Area 2

Sevena Lake, Tree Lake,  
Mainstem of Soldotna Creek

Treatment Timing: 2016 and 2017

Native Fish Relocation effort from Area 2 →  
Area 1 in 2015

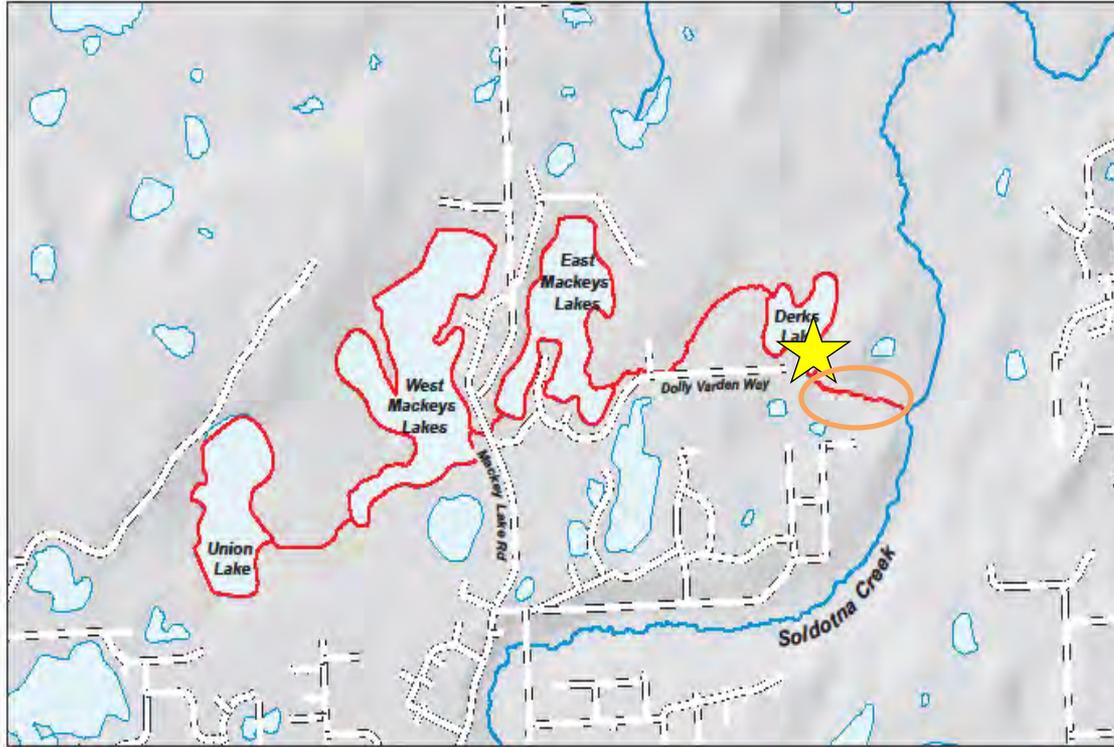
# Area 1 Rotenone Treatments

- October 6, 2014 – Union Lake
- October 7, 2014 – East Mackey Lake
- October 8, 2014 – West Mackey Lake
- October 9, 2014 – Derks Lake





# Neutralization



Area One:  
Western Branch of the  
Soldotna Creek Drainage

★ Neutralization Station



Map Produced by The  
State of Alaska  
Dept. of Fish & Game



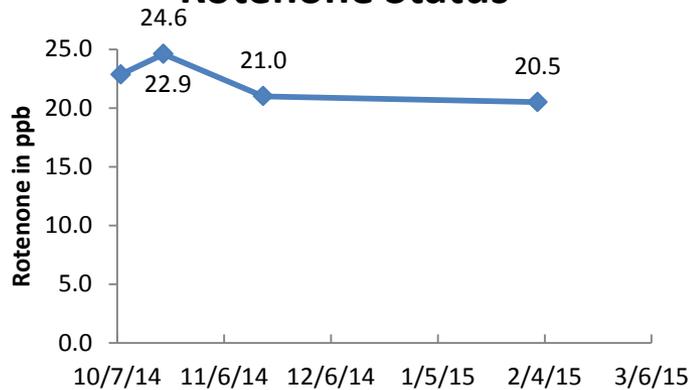
Deactivation Station



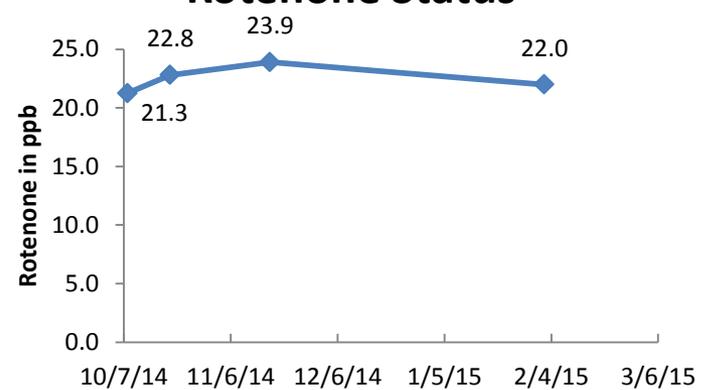
Derks Lake Barrier

# Rotenone Degradation

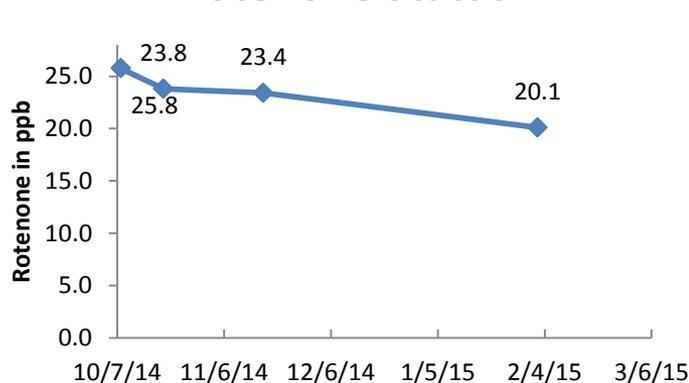
## Union Lake Average Rotenone Status



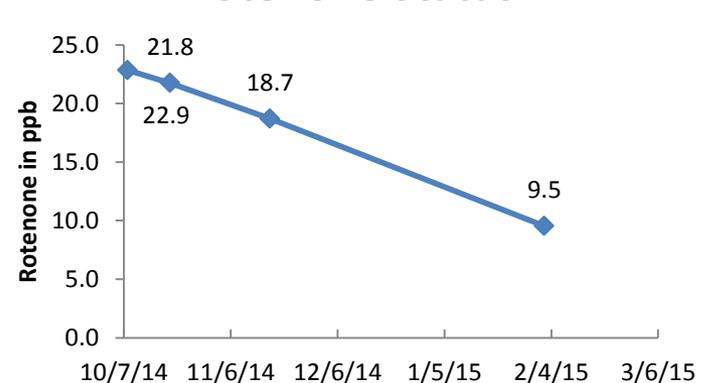
## W. Mackey Lake Average Rotenone Status



## E. Mackey Lake Average Rotenone Status



## Derks Lake Average Rotenone Status





# Project Funding

Phase 2 Funding Acquired: \$470,600 from AKSSF

# Next Steps

- Confirm pike were eradicated from Area 1
- Native fish relocation effort in 2015
- Treat Sevena and Tree Lakes in Soldotna Creek in 2016 and 2017
- Monitor sentinel fish in the Kenai River confluence and neutralize if necessary
- Breach the Derks Lake Barrier
- Begin process to remove pike from 6 lakes along Tote Road

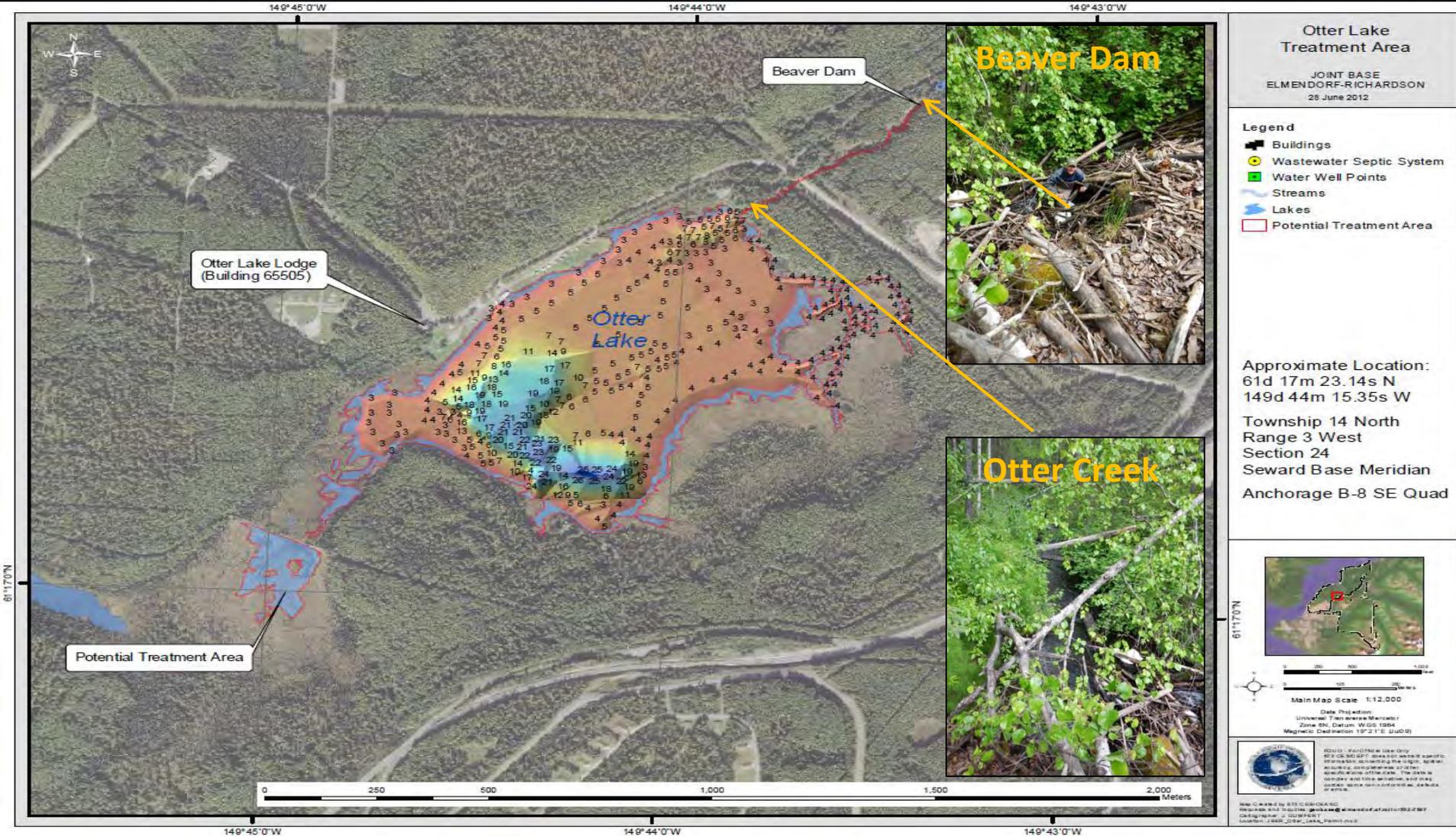


# Next Treatment

Otter Lake on Joint Base Elmendorf-Richardson



# Otter Lake Pike Eradication



Treatment Area: Otter Lake: 140 acres & Otter Creek: 1900 feet above a perched beaver dam

# Otter Lake Pike Eradication

Project Permitting:

NEPA:

FONSI issued July 13, 2013

Pesticide Use Permit: Issued January 29, 2015

# Questions

