

# DRUM CONSOLIDATION PROJECT

## Nikolski, Alaska



1/3/2007

# PRESENTATION

Chris Riggio, PE

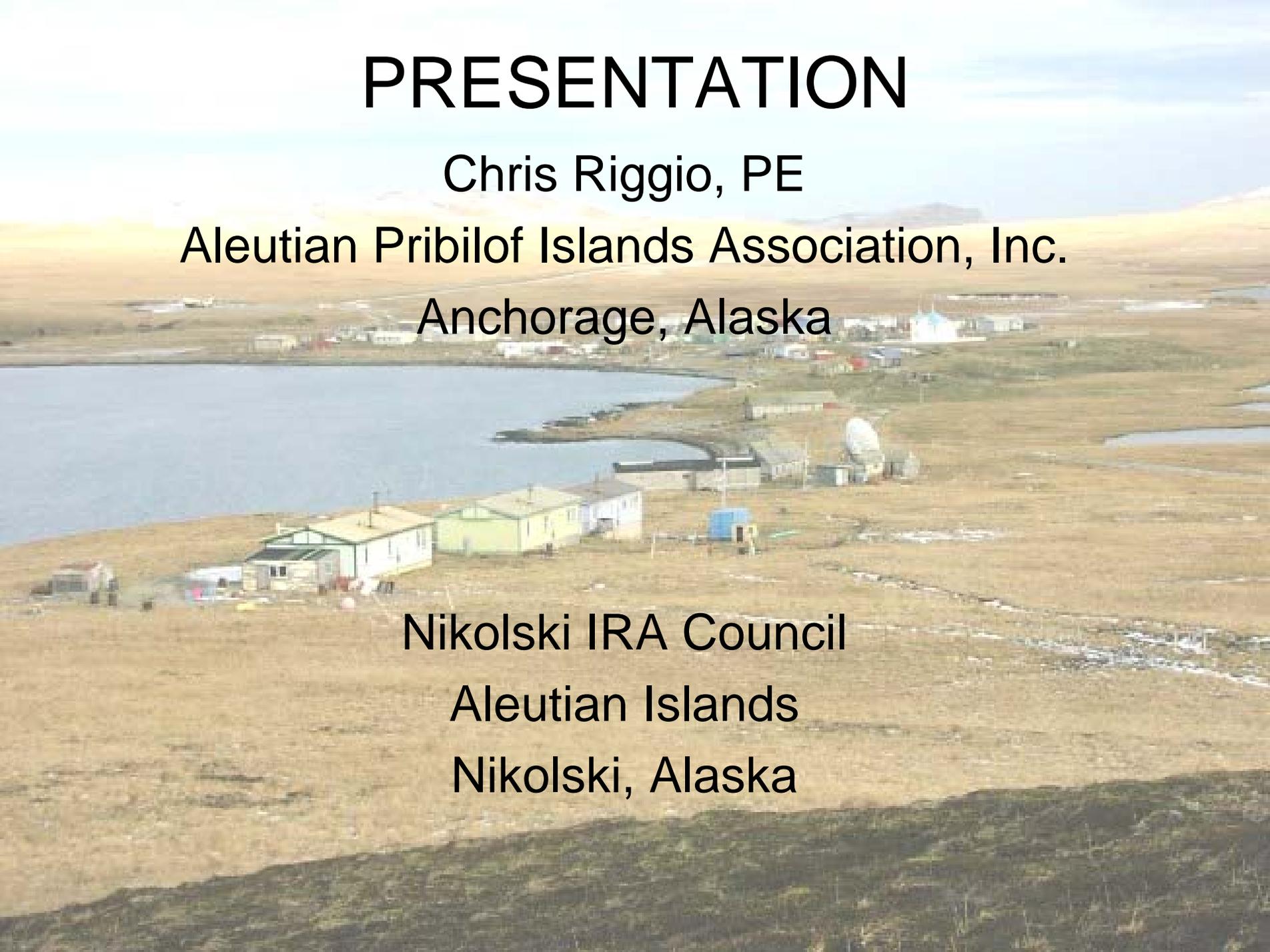
Aleutian Pribilof Islands Association, Inc.

Anchorage, Alaska

Nikolski IRA Council

Aleutian Islands

Nikolski, Alaska



# PRESENTATION OUTLINE

An aerial photograph of a coastal settlement, likely in a high-latitude region. The foreground shows a grassy slope leading down to a cluster of buildings, including a prominent satellite dish. A large body of water is visible in the middle ground, with a small pier or breakwater extending into it. The background features a wide, flat landscape under a cloudy sky.

- Project Background
- Slides of Nikolski & Project
- Outline of Steps for Project
- Lessons Learned
- Contact Information

# PROJECT BACKGROUND

- Area next to shore where USAF stored drums at one time.
- USAF site drums removed a few years ago during cleanup of old USAF military base, but some petroleum and other contaminants left behind at this site.
- Various agencies and community members started to stockpile old vehicles, tanks, and drums adjacent to the USAF site.

# PROJECT BACKGROUND

- Community collected old drums from village in an attempt to consolidate drums into one area and clean up the village.
- Some of the drums contained residual diesel fuel, while others contained some oily water, and others contained used oil.
- Ongoing releases were beginning to occur in this area from some of the drums.

# PROJECT BACKGROUND

- USAF and the State of Alaska Department of Environmental Conservation began to get very concerned about these ongoing releases and requested that the Tribe take appropriate action.
- Nikolski Tribe worked with agencies as well as EPA to address the problem using their EPA IGAP grant funds.

# PROJECT BACKGROUND

- Cleanup work conducted by Tribal members during summer of 2005 in conjunction with technical assistance from a Consultant and involved agencies.
- List of steps taken to address issue included at end of this presentation.

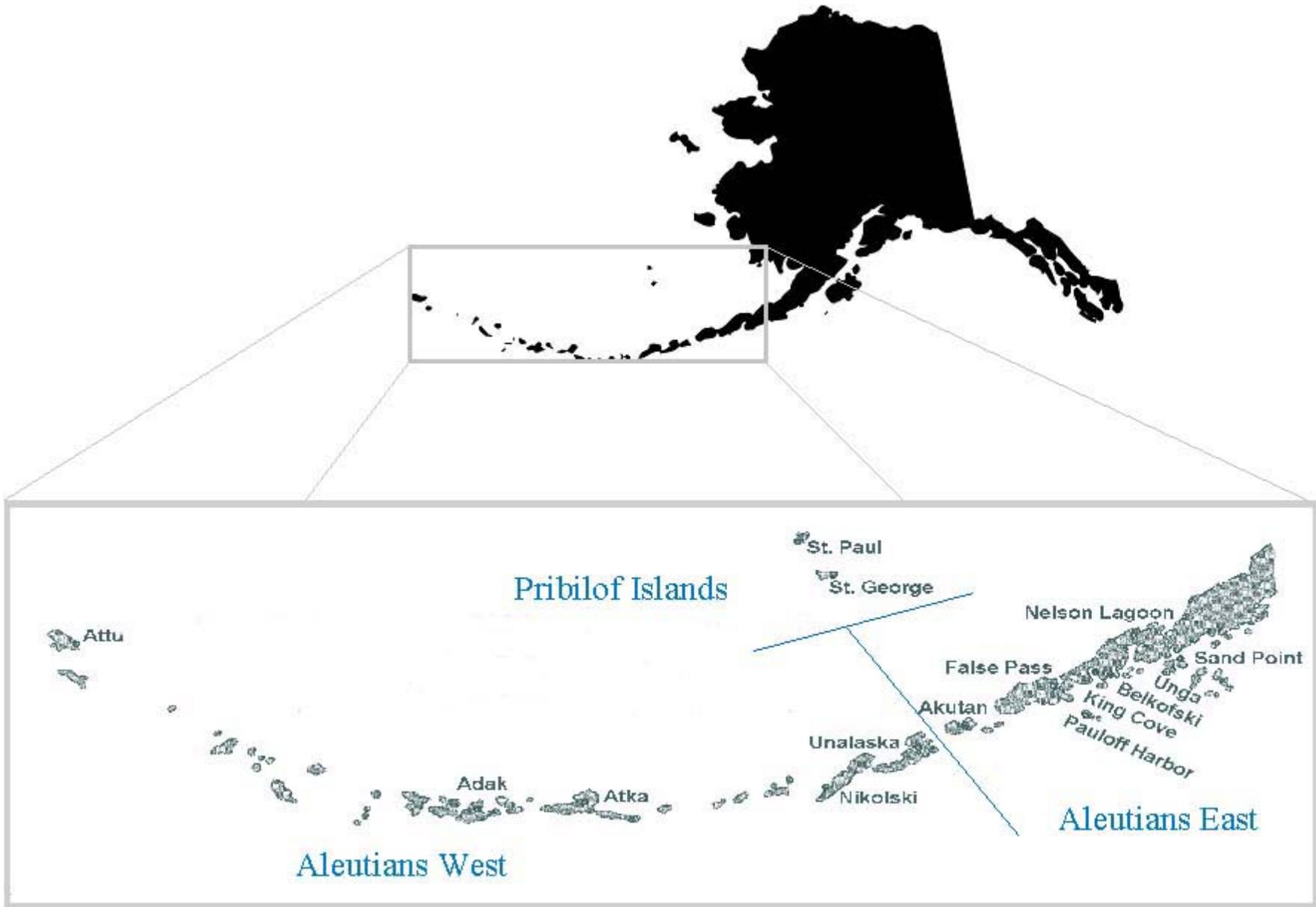
# ALASKA IS A BIG PLACE!



AREA OF PROJECT

1/3/2007

# ALEUTIAN PRIBILOF ISLANDS ASSOCIATION, INC. REGION

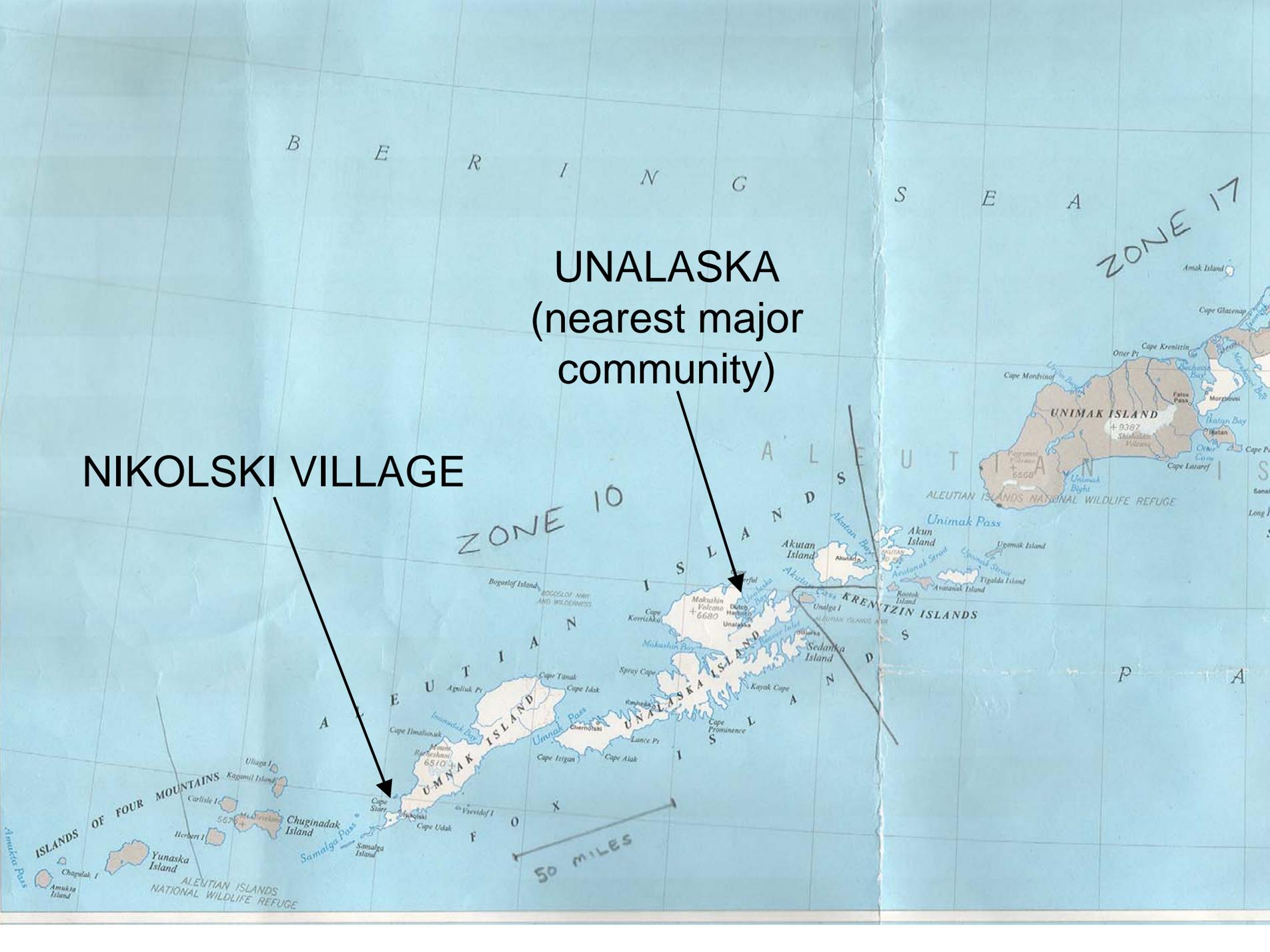


B E R I N G S E A

ZONE 17

UNALASKA  
(nearest major  
community)

NIKOLSKI VILLAGE



ZONE 10

A L E U T I A N I S L A N D S

KRENTZIN ISLANDS

ISLANDS OF FOUR MOUNTAINS  
ALEUTIAN ISLANDS NATIONAL WILDLIFE REFUGE

50 MILES



**DRUMS STORED AT  
ROAD EDGE**



**VILLAGE**



**COMMUNITY WELL**



# BEFORE CLEANUP

## USAF PHOTO – 2003-2004





Total Length of Site: 333 ft

40 ft

18 ft

58 ft

23 ft

15 ft

# AFTER CLEANUP – SUMMER 2005





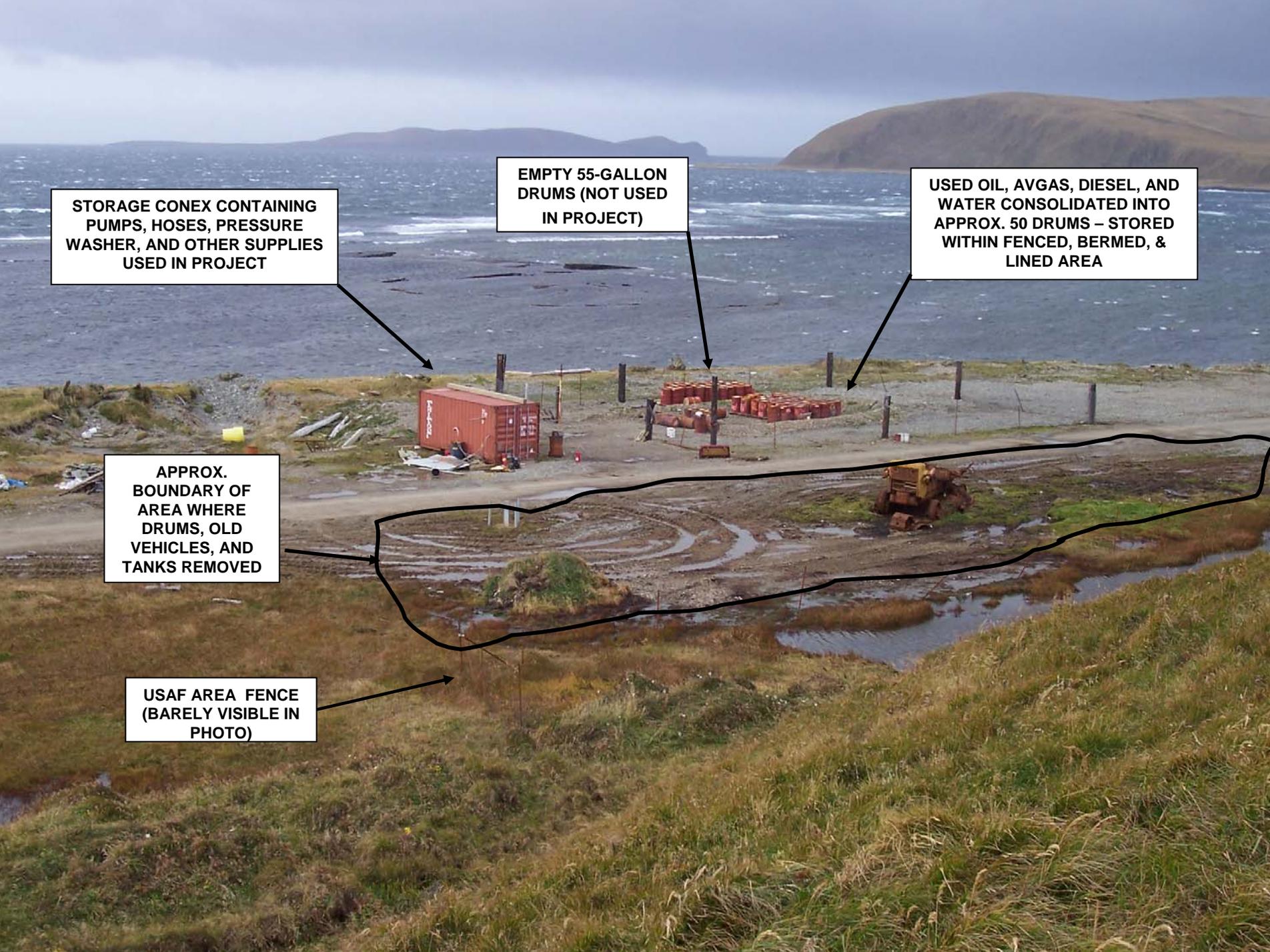
**STORAGE CONEX CONTAINING PUMPS, HOSES, PRESSURE WASHER, AND OTHER SUPPLIES USED IN PROJECT**

**EMPTY 55-GALLON DRUMS (NOT USED IN PROJECT)**

**USED OIL, AVGAS, DIESEL, AND WATER CONSOLIDATED INTO APPROX. 50 DRUMS – STORED WITHIN FENCED, BERMED, & LINED AREA**

**APPROX. BOUNDARY OF AREA WHERE DRUMS, OLD VEHICLES, AND TANKS REMOVED**

**USAF AREA FENCE (BARELY VISIBLE IN PHOTO)**



# Old Drums & Petroleum Releases























































# STAGED CLEANED DEBRIS FROM CLEANUP PROJECT



# STAGED CLEANED DEBRIS FROM CLEANUP PROJECT





**STAGED CLEANED DEBRIS FROM CLEANUP PROJECT**



CLEANED, CUT UP OLD TANKS



**PROPOSED ONE-TIME  
DEBRIS DISPOSAL SITE**



**NIKOLSKI VILLAGE**

**NIKOLSKI BAY**



**PROPOSED ONE-TIME DEBRIS DISPOSAL SITE  
VIEW TOWARDS NORTH**



**DRUM CONSOLIDATION SITE**



**PROPOSED ONE-TIME  
DEBRIS DISPOSAL SITE**



**COMMUNITY WELL**



-2006

1"=800'

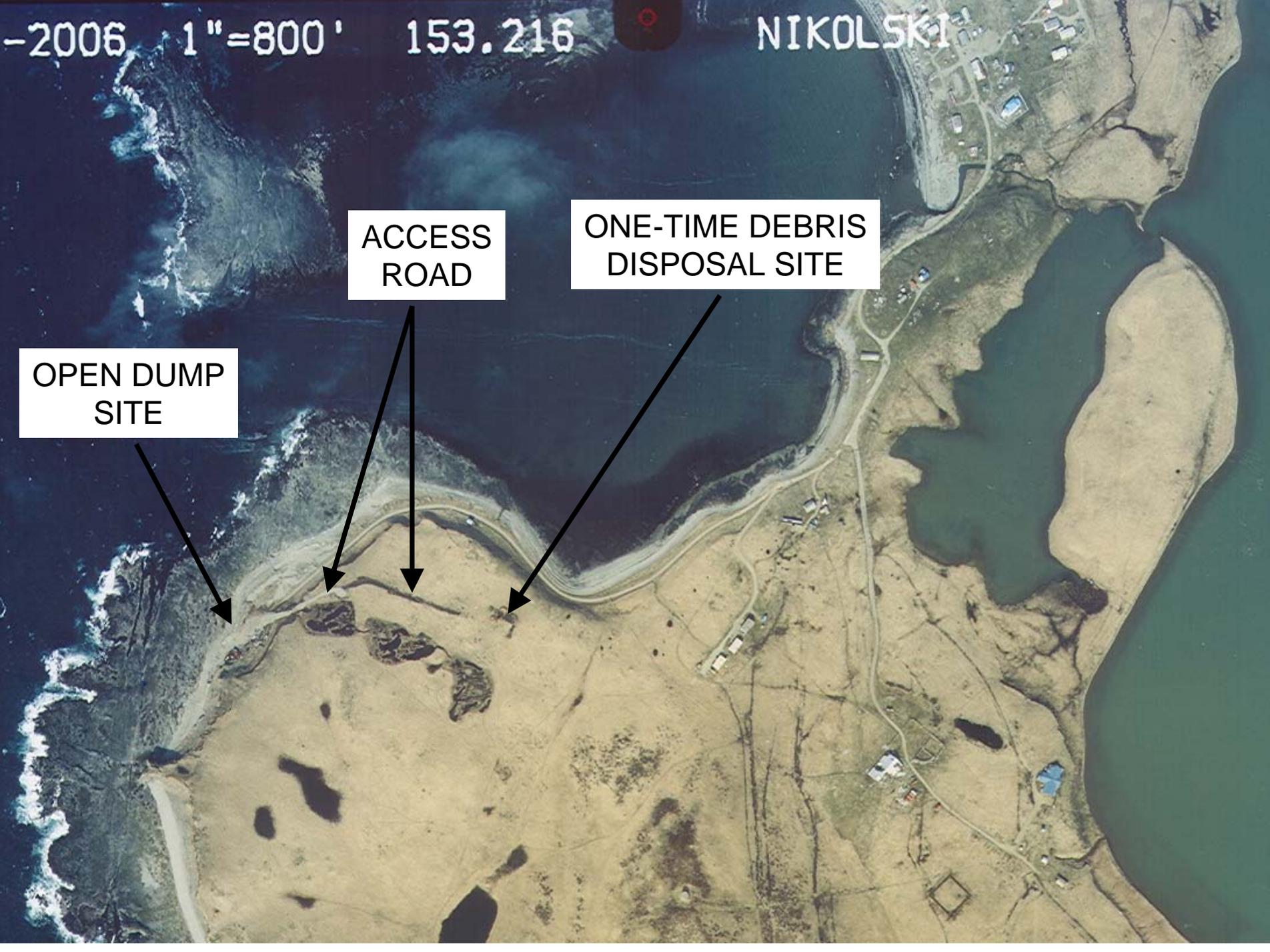
153.216

NIKOLSKI

OPEN DUMP SITE

ACCESS ROAD

ONE-TIME DEBRIS DISPOSAL SITE



# STEPS TO COMPLETE DRUM CONSOLIDATION PROJECT

- Work with EPA for approval to use IGAP funds for proposed work.
- Select contractor to assist in project (if desired).
- Contractor or Tribe write Project Plan.
- Submit plan to EPA and state regulatory agency for review and approval.

# STEPS TO COMPLETE DRUM CONSOLIDATION PROJECT

- Address review comments and complete final version of plan.
- Order materials for crew and project supplies (tyvek suits, gloves, goggles, liner materials, clean drums, etc.)
- Review plans with Tribal project team.
- Emphasize safety in completing work.

# STEPS TO COMPLETE DRUM CONSOLIDATION PROJECT

- Schedule project and coordinate with contractor for technical assistance.
- Contractor travel to site to assist team during project.
- Prepare area for lined containment cell.
- Ensure all equipment working properly.

# STEPS TO COMPLETE DRUM CONSOLIDATION PROJECT

- Consolidate like contents of drums into clean drums in containment area.
- Keep track of quantities and label drums as work completed.
- Triple-rinse drums prior to crushing; contain all rinsate to be treated in oil-water separator.
- Test drums of consolidated fluids and make sure drums within secured & lined containment area.

# STEPS TO COMPLETE DRUM CONSOLIDATION PROJECT

- Treat oily rinsates and oily waters through oil/water separator and scrubbers.
- Collect treated water, sample it, and hold in clean tanks until approval to release in accordance with approved plans.
- Recycle or dispose of old cut up drums, tanks, and vehicles.

# STEPS TO COMPLETE DRUM CONSOLIDATION PROJECT

- Move vehicles to containment cell one at a time; drain fluids out of engine, fuel tank, cylinders, transmission boxes, etc. and collect into drums.
- Clean vehicle fluid vessels and collect rinsate.
- Cut up & crush drums, tanks, and old vehicles once fluids drained and vessels cleaned.

# STEPS TO COMPLETE DRUM CONSOLIDATION PROJECT

- Note that this list is not all-inclusive and is only a brief summary for this project
- Your project will probably be different, so be sure to consider all the steps and requirements for yours.
- Be sure to work closely with EPA and other regulatory agencies to complete the project correctly.

# STEPS TO COMPLETE DRUM CONSOLIDATION PROJECT

- Emphasize safety in operations – everyone on the job has authority to stop the project at any time if something unsafe is observed.
- Be sure to follow correct procedures when handling petroleum fluids during operations – don't want to cause an explosion, spill, or other dangerous situation!

# LESSONS LEARNED

- Tribes are capable of doing a lot! This was a great example of a Tribe rising to the challenge with minimal expense.
- Address drum issues early so that such a problem is not created.
- Work with EPA and other agencies if you have unresolved issues with petroleum products (drums, used oil, old tanks, etc.)

# LESSONS LEARNED

- Reach out for help from agencies and consultants to solve such problems early before they create a big messy oil spill.
- Be brave and ask for help on environmental problems.
- Working together is key – set aside your differences with agencies and other community members and solve the problem. A lot of good can come out of it!

# BEFORE CLEANUP USAF PHOTO – 2003-2004



# AFTER CLEANUP – SUMMER 2005



# AFTER CLEANUP – SUMMER 2005



# ALEUT ELDER, GEORGE BEZEZEKOFF



# CONTACT INFORMATION

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