

Summary of Minto Flats Northern Pike Subsistence and Sport Fisheries



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Anchorage, Alaska**

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ADF&G**

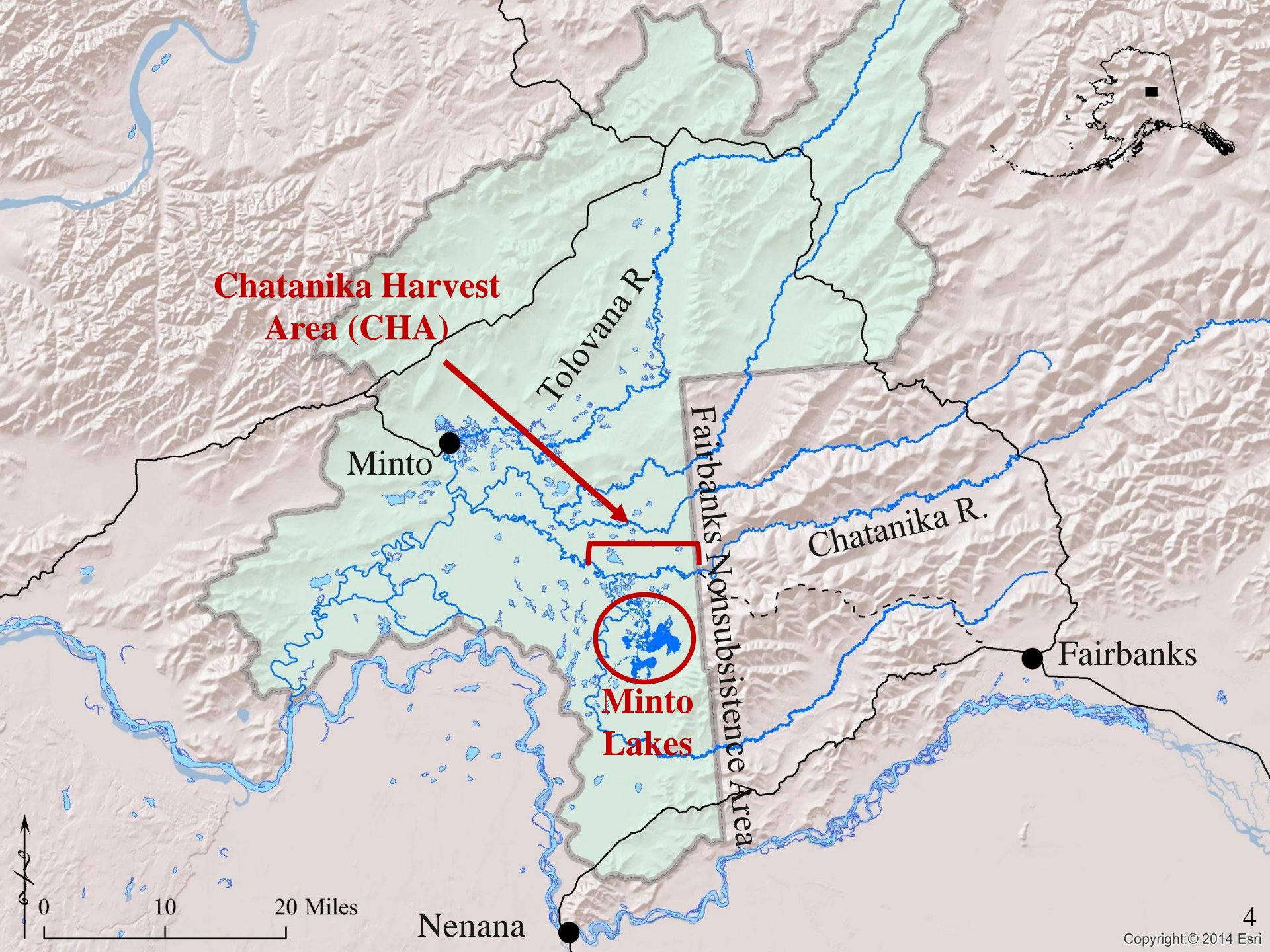
**Oral Report – RC 3, Tab 9
Northern Pike Written Report – RC 3, Tab 6**

Presentation Outline

- Pike Biology
- Minto Flats
- Fishery Overviews
 - Subsistence
 - Sport
- Minto Flats Management Plan
- Research
 - Stock Assessments
 - Telemetry
 - CHA Specific Results
- Proposals

Northern Pike Biology Overview

- Northern pike are long-lived
 - Sexual maturity at 4–6 years old
 - 30" = 8–10 years old
 - 40" = 15–20 years old
 - In interior Alaska all pike $\geq 30"$ are female
 - ~300K eggs
- Female northern pike are more susceptible to angling through the ice
 - Pre-spawn energetics
 - 30" northern pike have 4 times the number of eggs compared to 18" fish



**Chatanika Harvest
Area (CHA)**

Tolovana R.

Minto

Fairbanks Nonsubistence Area

Chatanika R.

Fairbanks

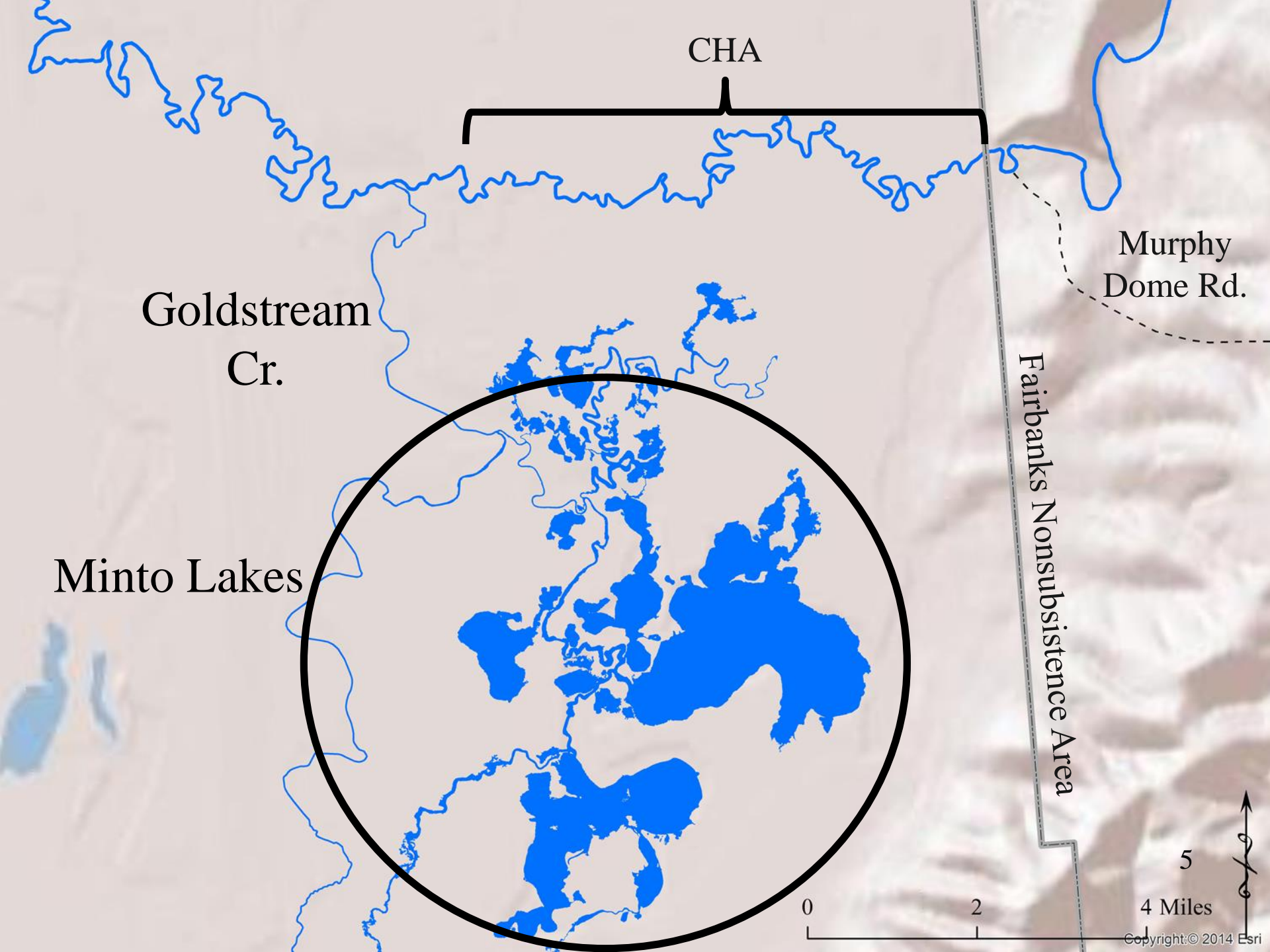
**Minto
Lakes**

Nenana

20 Miles

10

0



CHA

Goldstream
Cr.

Murphy
Dome Rd.

Fairbanks Nonsubsistence Area

Minto Lakes

0 2

5
4 Miles

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Subsistence History

- Tolovana River drainage supported 4 major seasonal settlements for subsistence fishing.
- 1987 positive C&T finding for northern pike in Yukon River drainage.

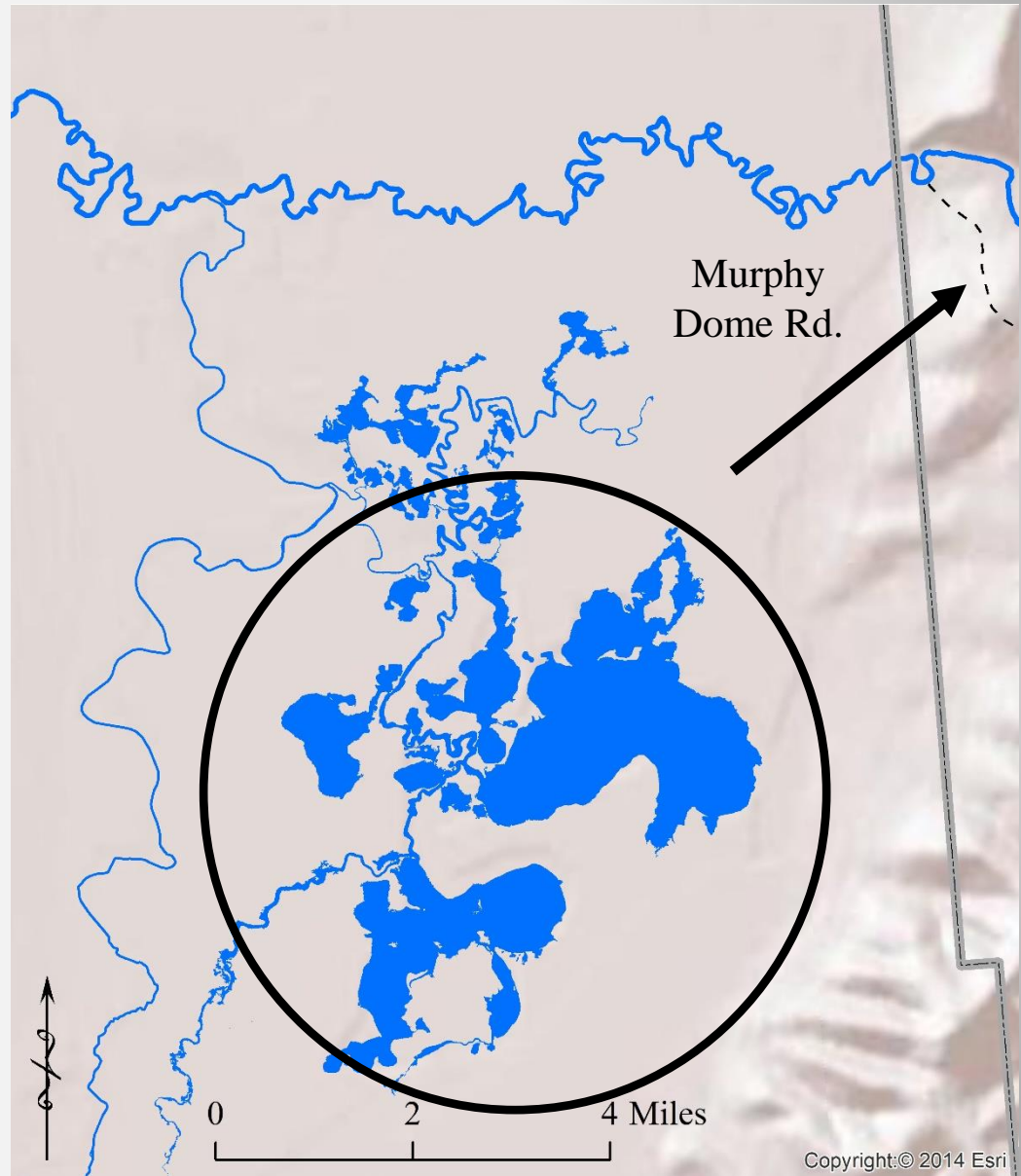


Subsistence Fishery Overview

- Household permit required
- Regulations outside of CHA:
 - Open water period: Multiple gear types allowed drainagewide
 - Winter: Rod and reel ice fishing only
 - No annual bag limits for open-water and winter periods
- Regulations specific to winter CHA fishery:
 - 10 pike/day, 20 in possession, no size limits, no annual limit
 - Weekly catch report required
 - 1 mile closed to ice fishing
 - Bait allowed, single hook only

Sport Fishery Overview

- Primary fishing area: Minto Lakes
- Primary access: Murphy Dome Road (1980s)
- Alaska Residents, Non-Residents, few guiding operations
- Open June 1–October 14
- Daily bag & possession 5 pike, only 1 \geq 30 inches



Minto Flats Northern Pike Management Plan

- Established 1998
- Purpose of Plan

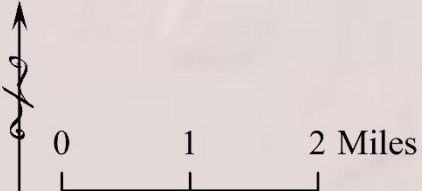
*Provide the department with guidance to achieve goals of managing these stocks consistent with sustained yield principles, providing a reasonable opportunity for the **priority subsistence fishery**, and providing a sport fishing opportunity.*

- Harvest may not exceed 20% annual exploitation of assessed population by all users
- Management Triggers:

CHA

Harvest of 1 500 fish in CHA –
Harvest of 750 fish in CHA =
fishery for remainder of ice-
covered period.

Reduction in Sport bag limit:
from
5 fish, 1 \geq 30"
to
2 fish, 1 \geq 30"

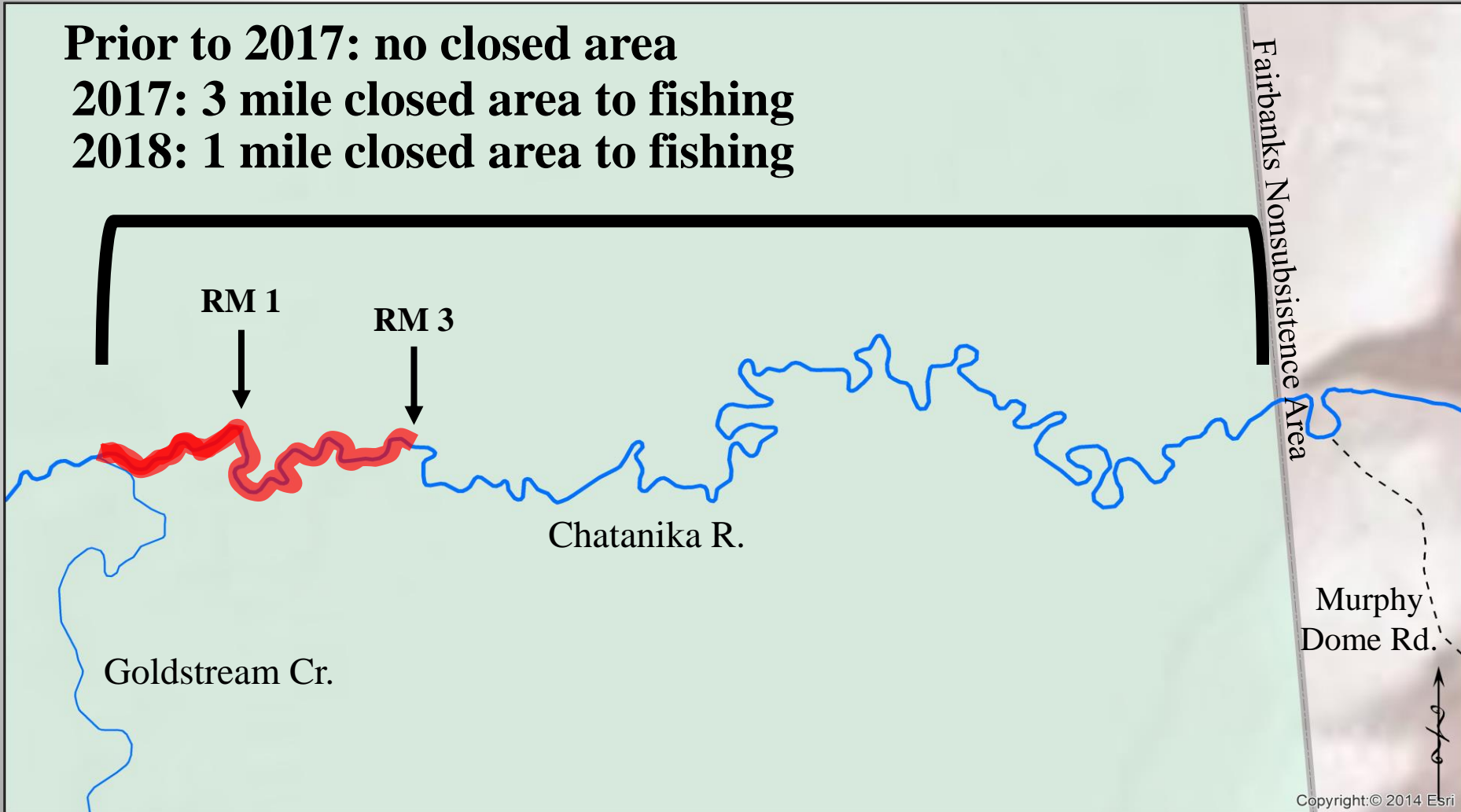


Recent Changes to Management Plan

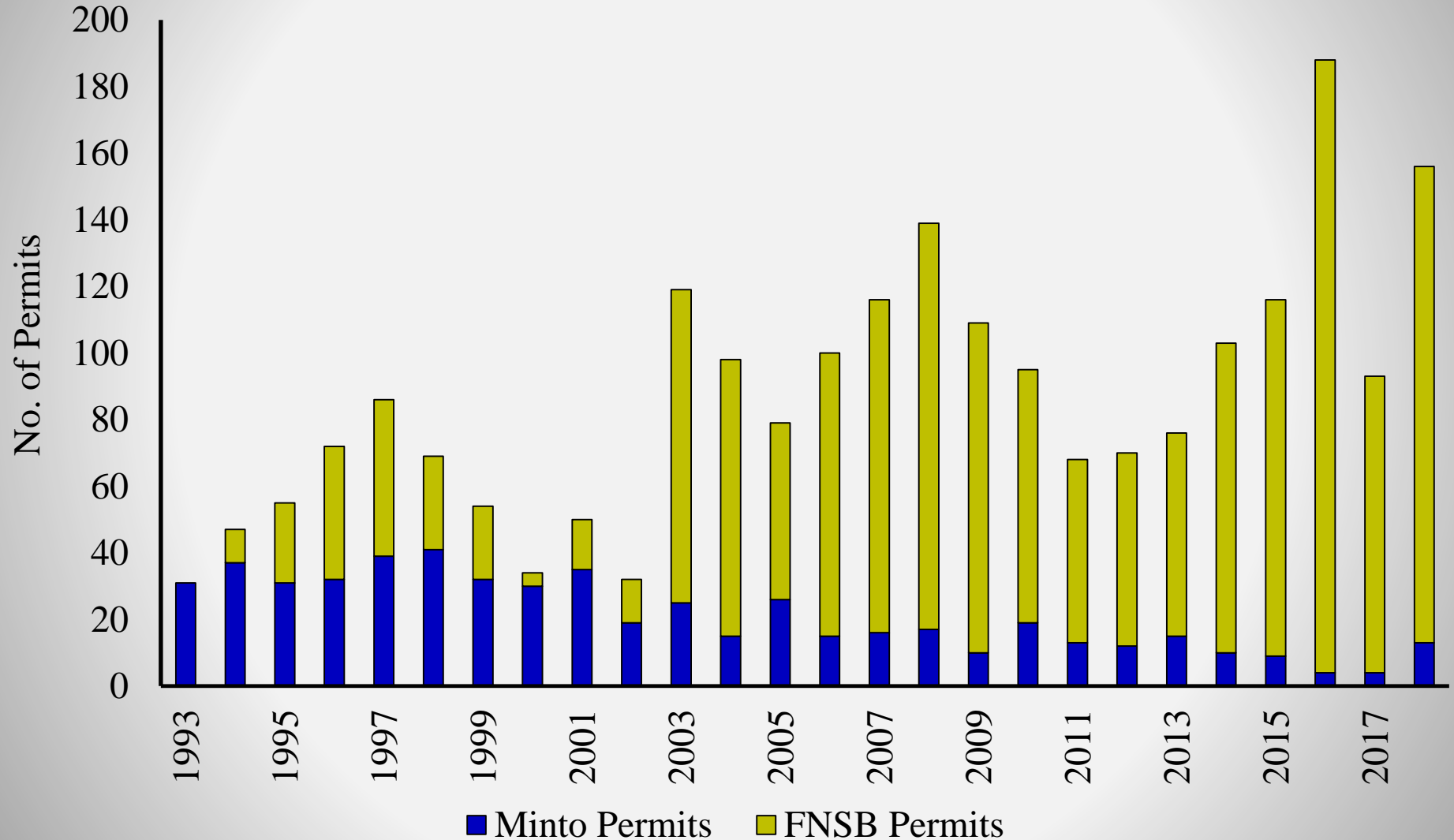
Prior to 2017: no closed area

2017: 3 mile closed area to fishing

2018: 1 mile closed area to fishing

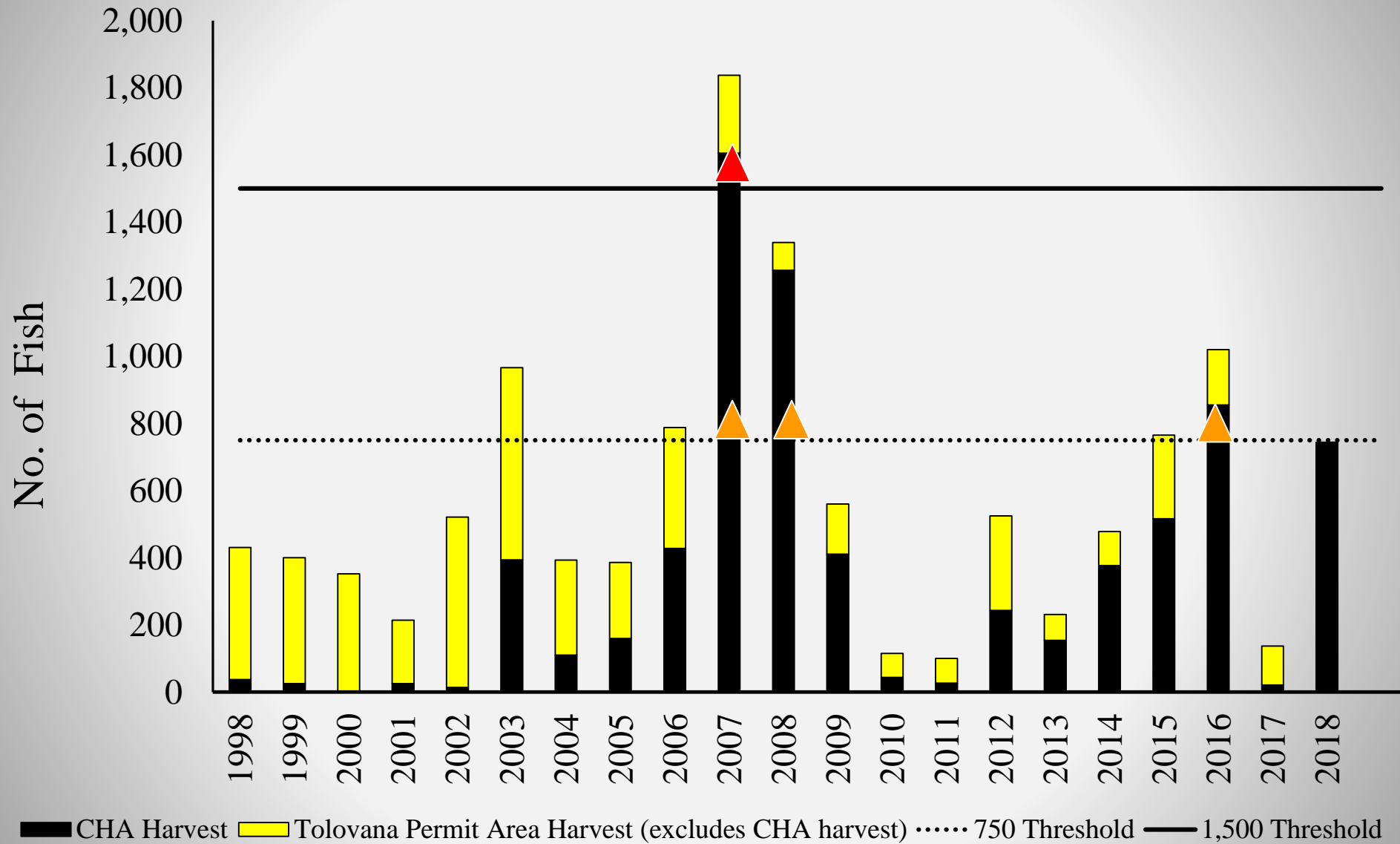


Subsistence Participation



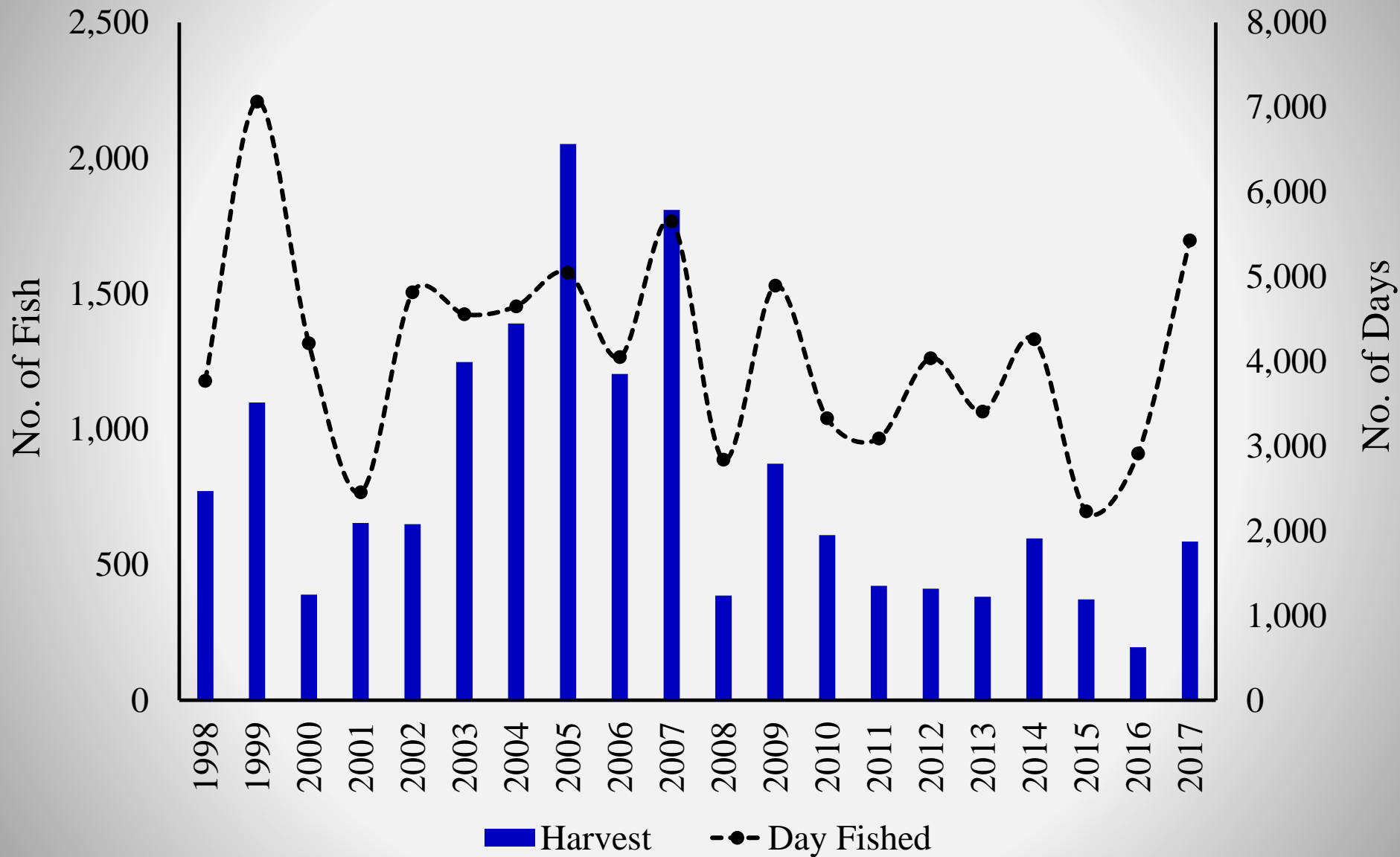
2018 data is preliminary

Subsistence Harvest & CHA Management Actions



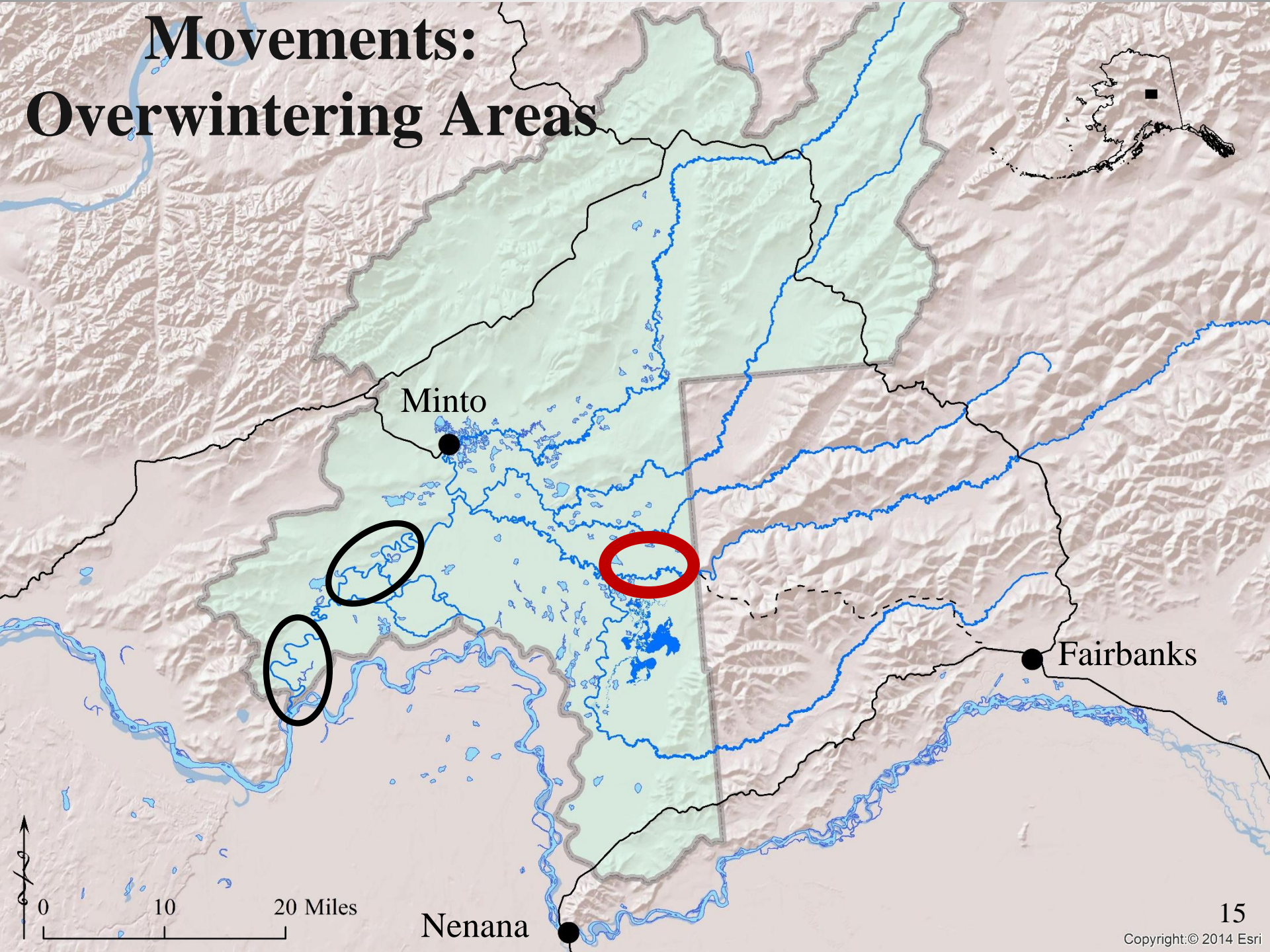
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Sport Harvest and Participation

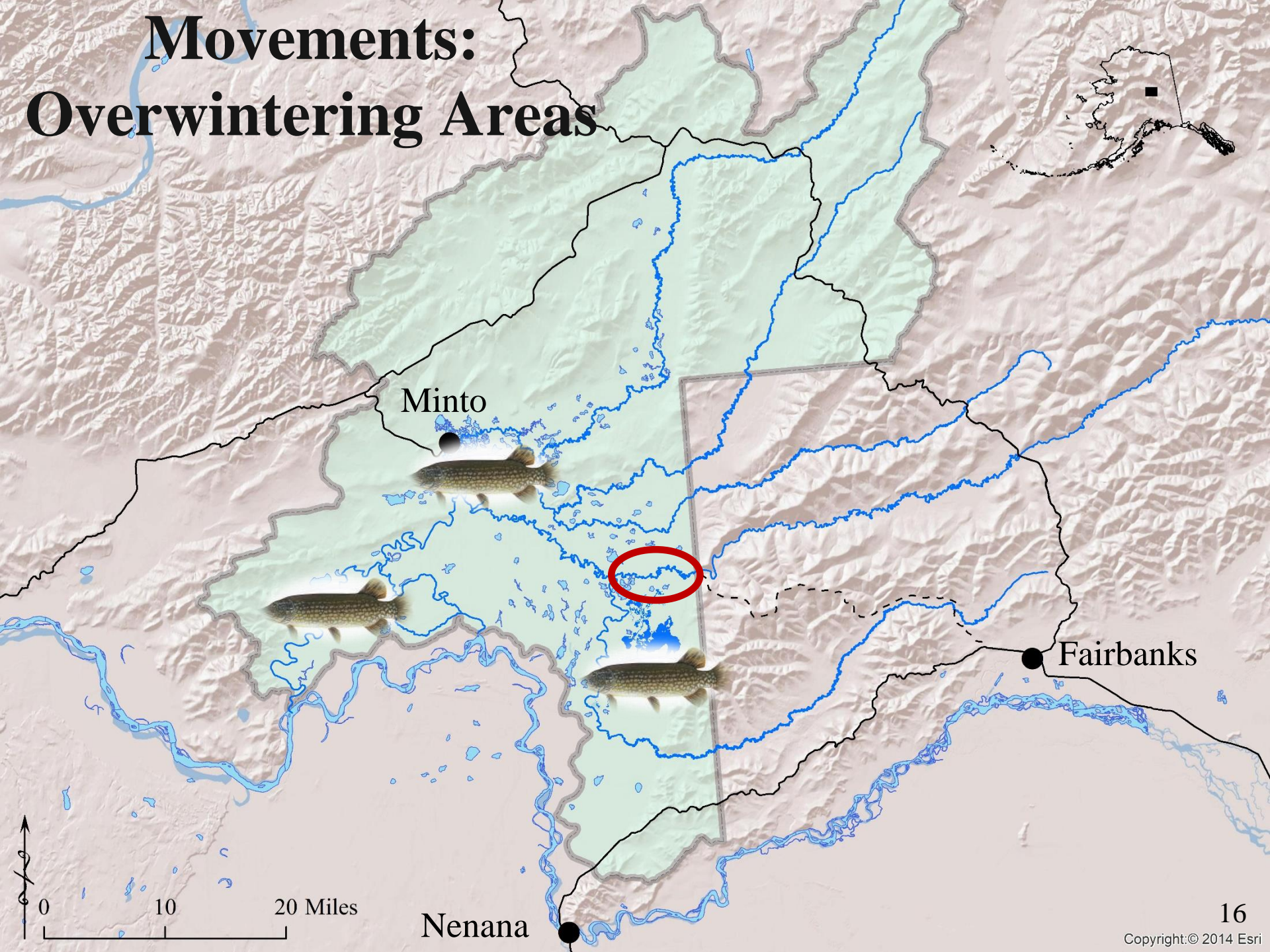


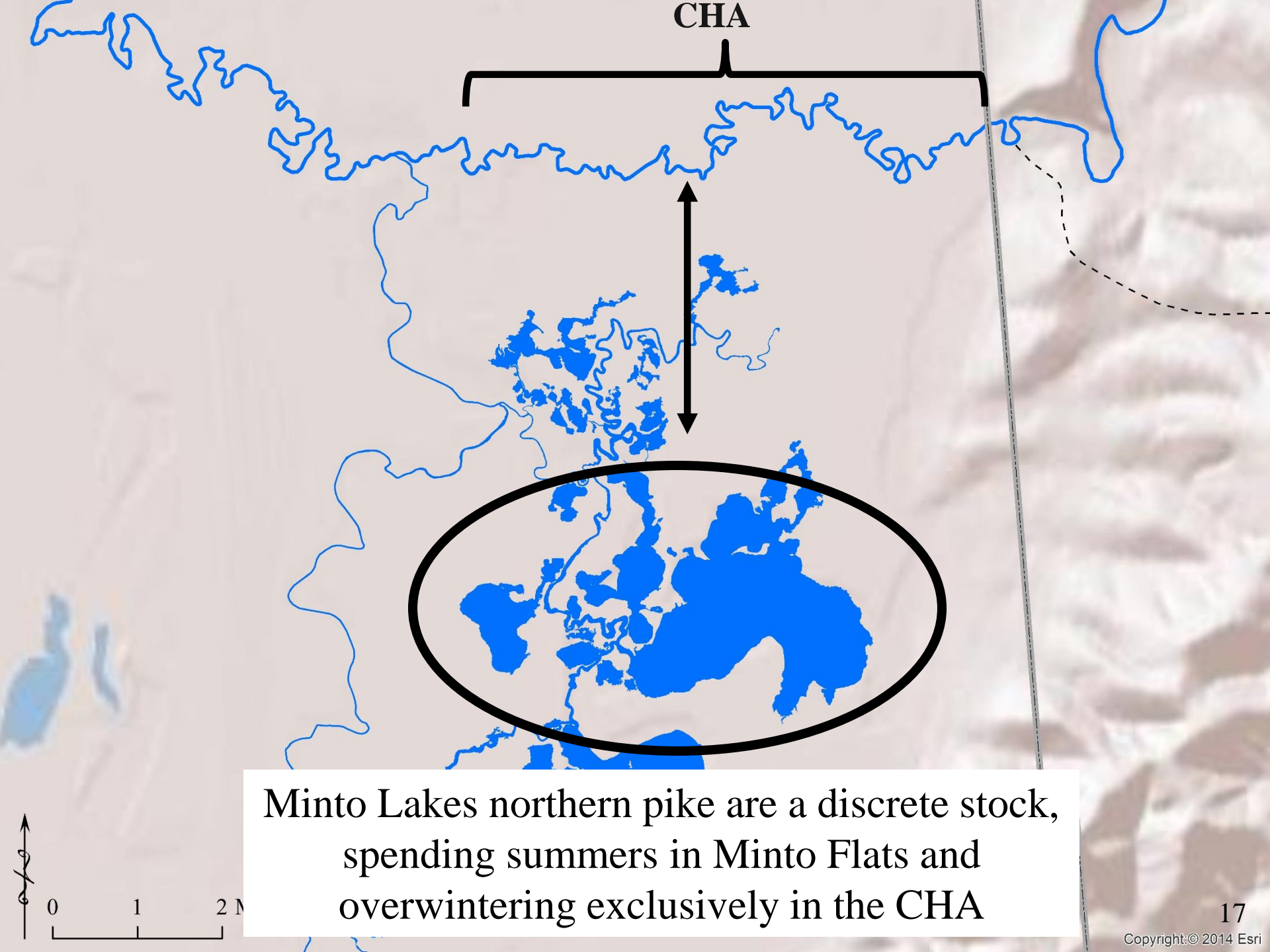
2018 sport data is not available

Movements: Overwintering Areas



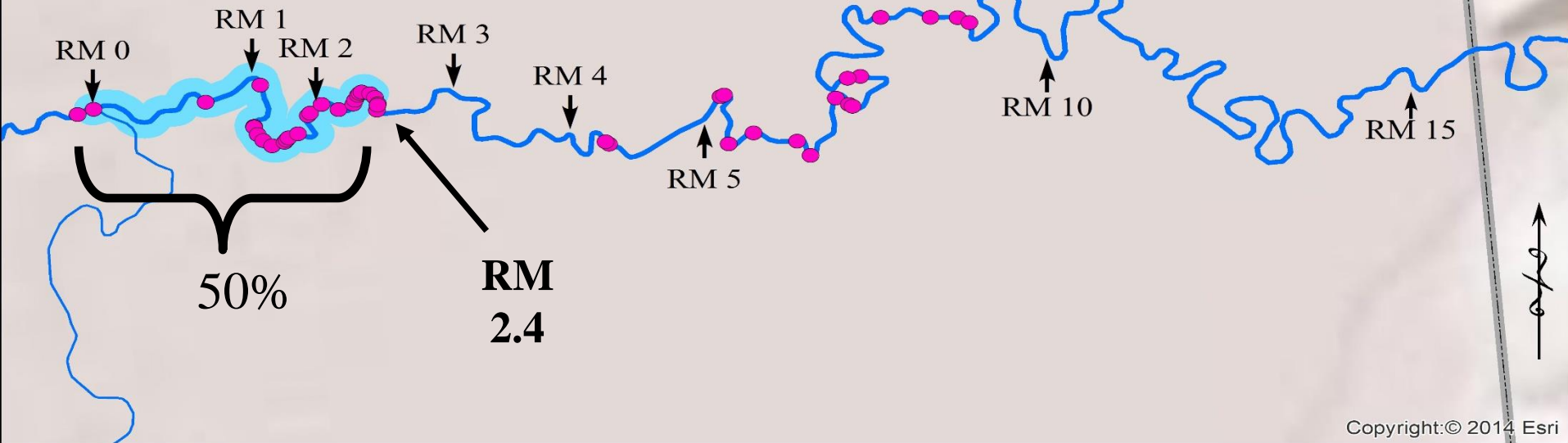
Movements: Overwintering Areas



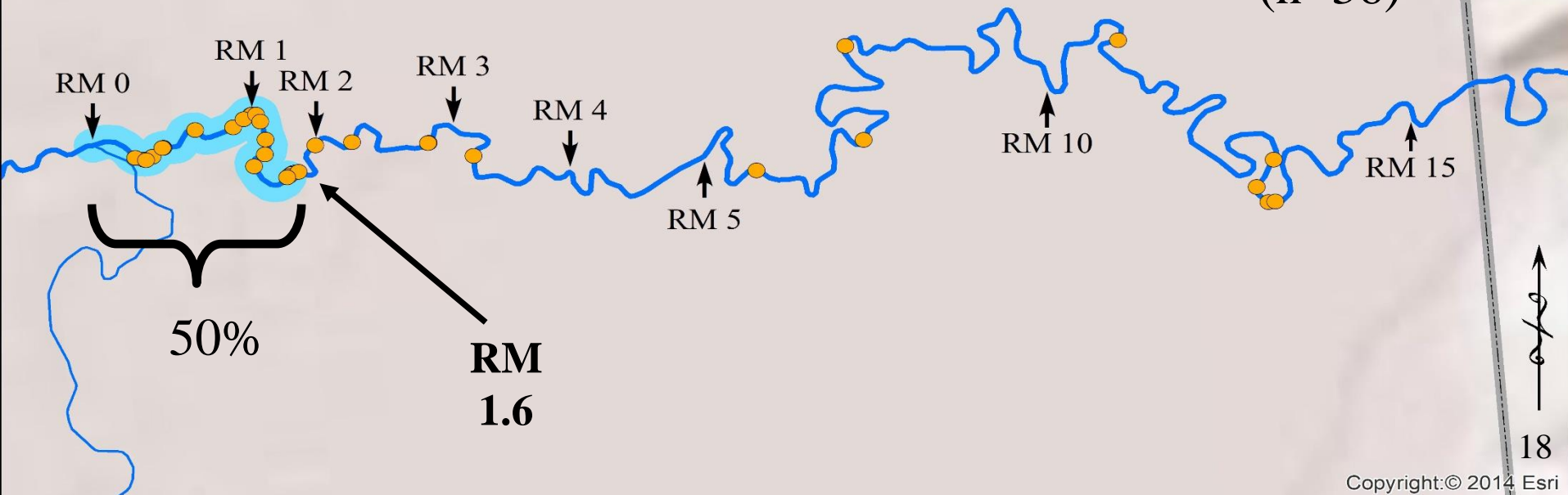


Minto Lakes northern pike are a discrete stock, spending summers in Minto Flats and overwintering exclusively in the CHA

2009 Data (n= 46)



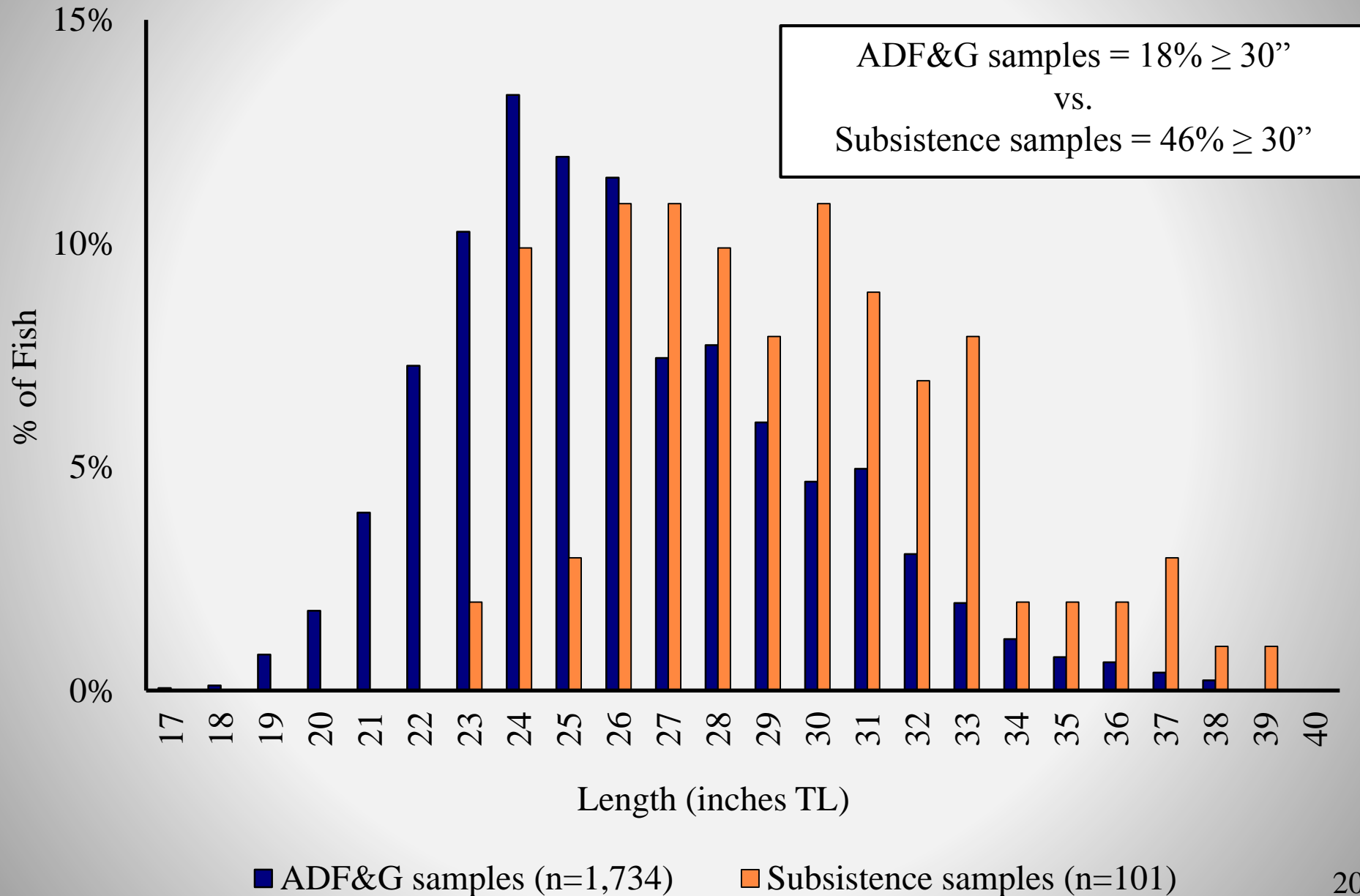
2017 Data (n=36)



Stock Assessment Overview: Table 6

- Mark-recapture experiments and length composition
 - 1996–2018: Minto Lakes Study Area
 - Abundance estimates of fish $\geq 24''$ has varied from 2,200 (2008) – 14,600 (2018)
 - $\geq 30''$ has varied from 960 (2008) – 2,400 (2018)
 - 2018: Chatanika Harvest Area
 - Overwintering estimate
 - $\geq 24'' = 19,900$ fish
 - $\geq 30'' = 3,100$ fish

2018 CHA Length Distribution



Subsistence Proposals

Proposal 63, 64 and 65:

Seek to do one or more of the following:

- expand the closed area by 1 or 2 miles
- reduce the daily and possession harvest limits
- establish a size limit, and/or
- require retention of first 10 fish caught, and prohibit catch-and-release fishing

Proposal 66 & 67:

Expands closed area from 1 mile to 3 miles

Proposal 68:

Remove the current 1 mile closed area

Proposal 69:

Reduce the current 1,500 fish harvest threshold, in order to maintain $< 10\%$ exploitation of fish harvested ≥ 30 inches

Questions?

