

Montana Fish Wildlife and Parks



Bighorn Water Issues Meeting November, 2013
Lovell, Wyoming
River and Reservoir Report

Fisheries Results for 2013 are preliminary.



FUNGUS



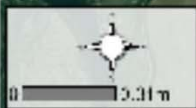
UPPER SHOCKING SECT.

4.2 Miles

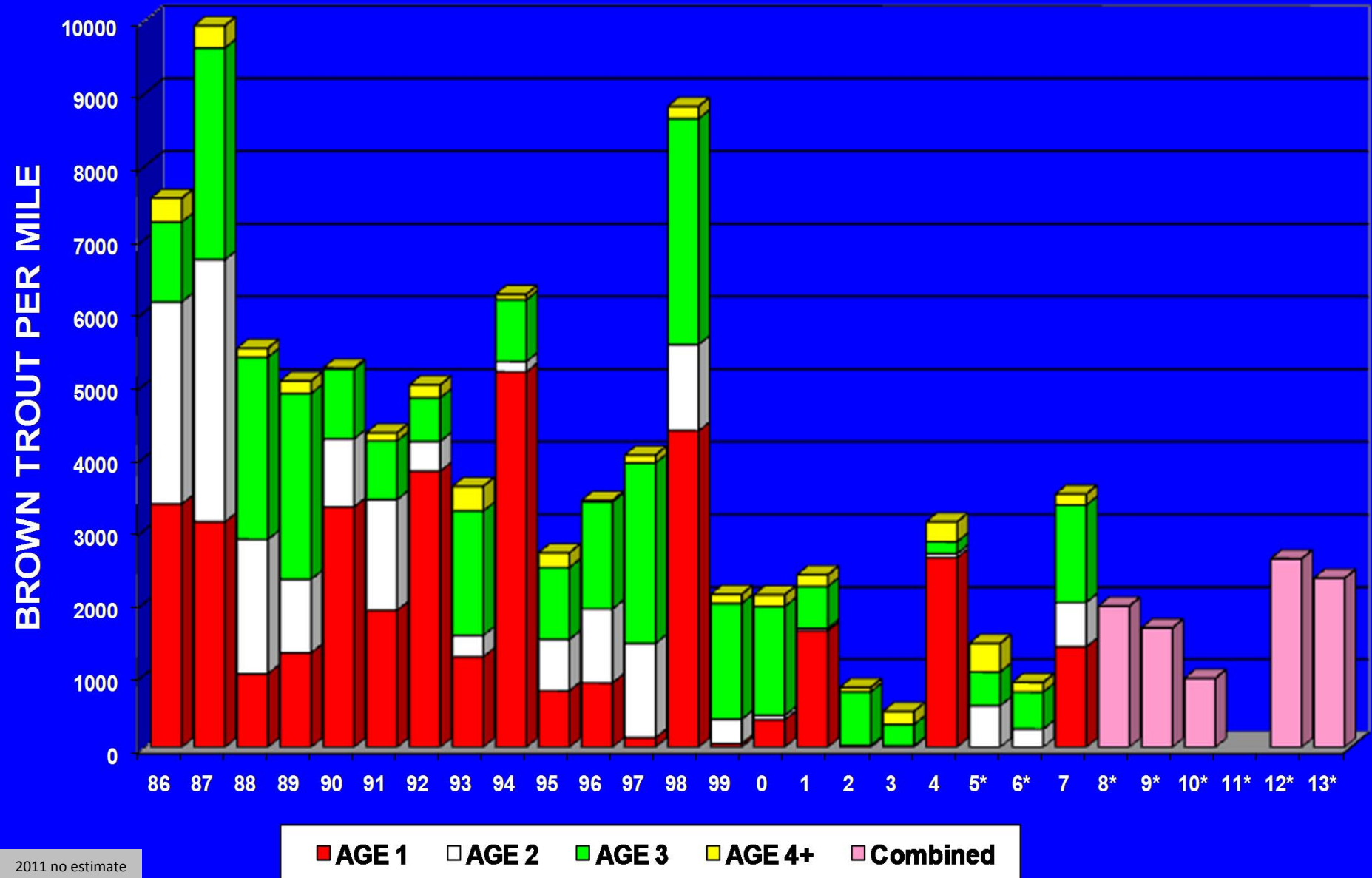
Big Horn

3-MILE ACCESS

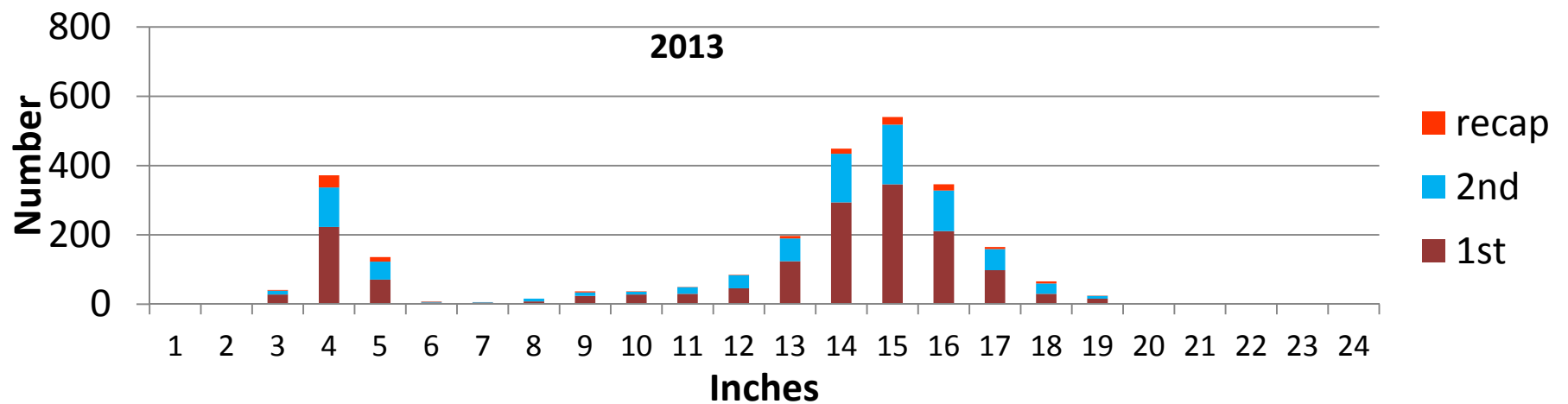
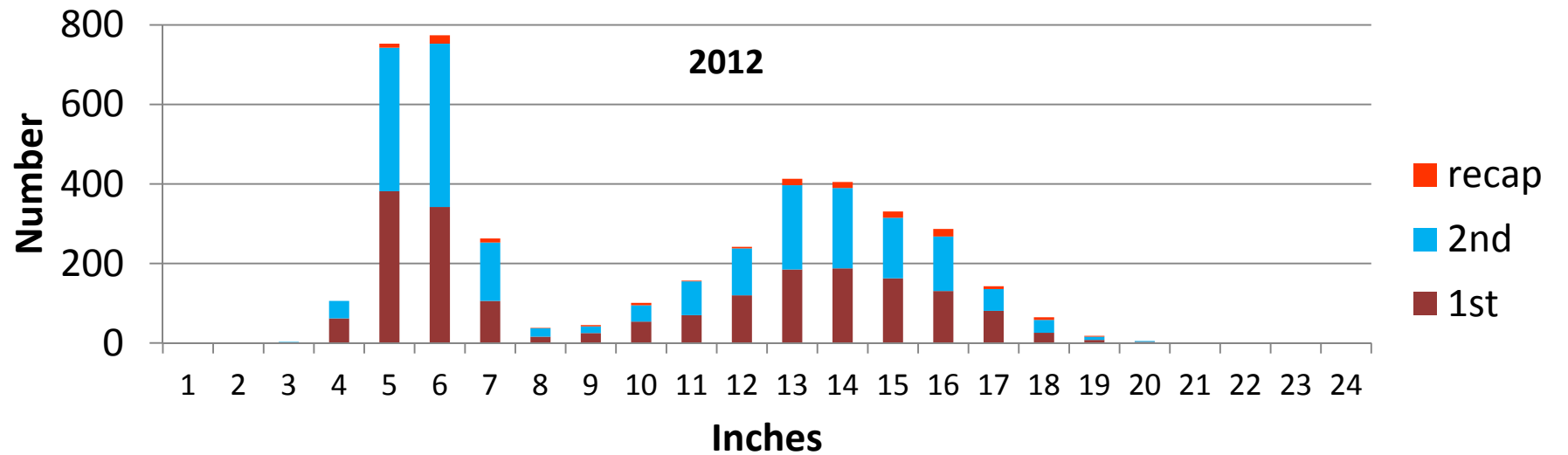
**2013 Estimate
2,232 brown trout
861 rainbow trout
3,198 Total for all sizes**



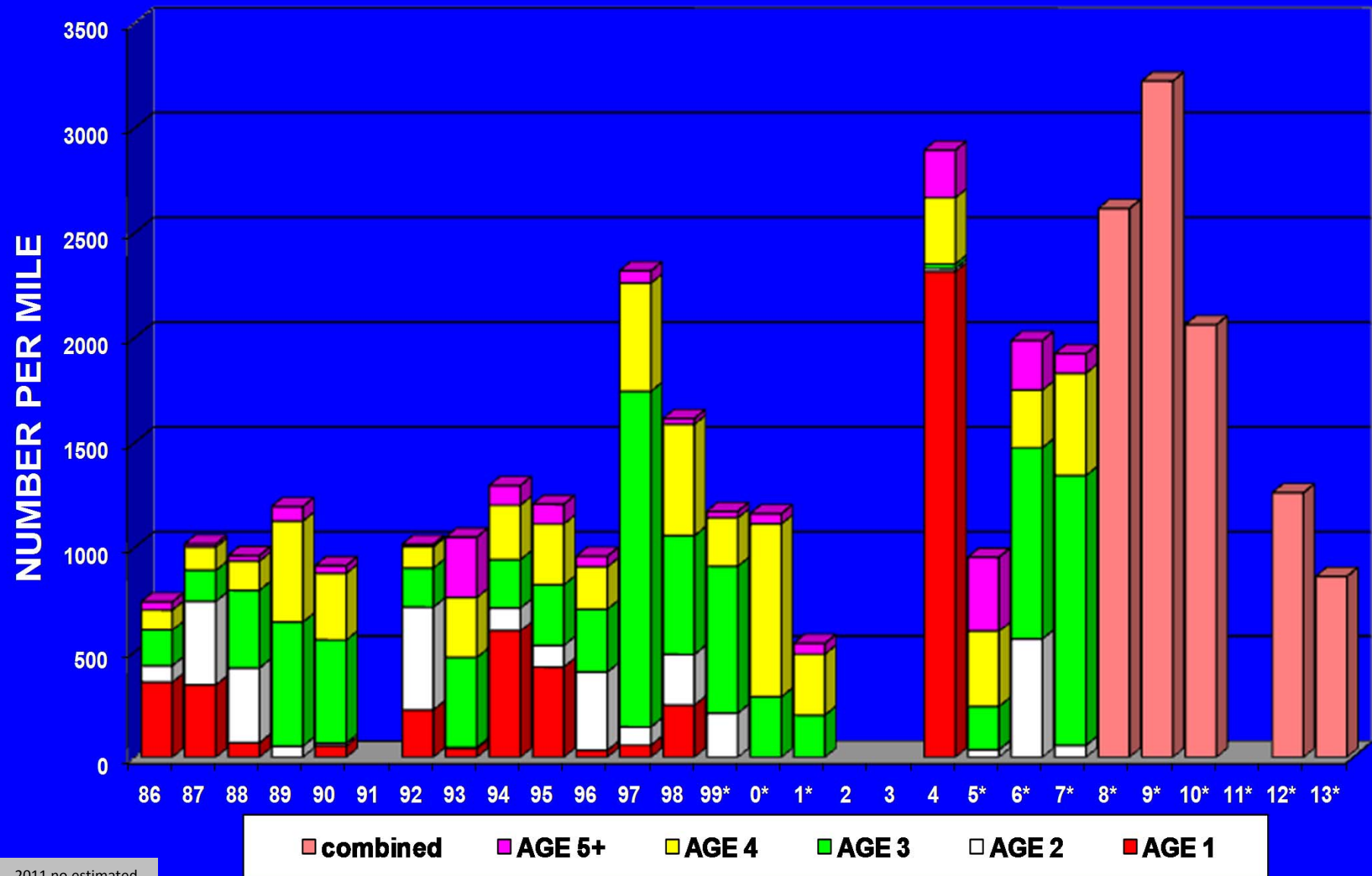
BROWN TROUT - UPPER SECTION



BROWN TROUT-UPPER SECTION LENGTH FREQUENCY

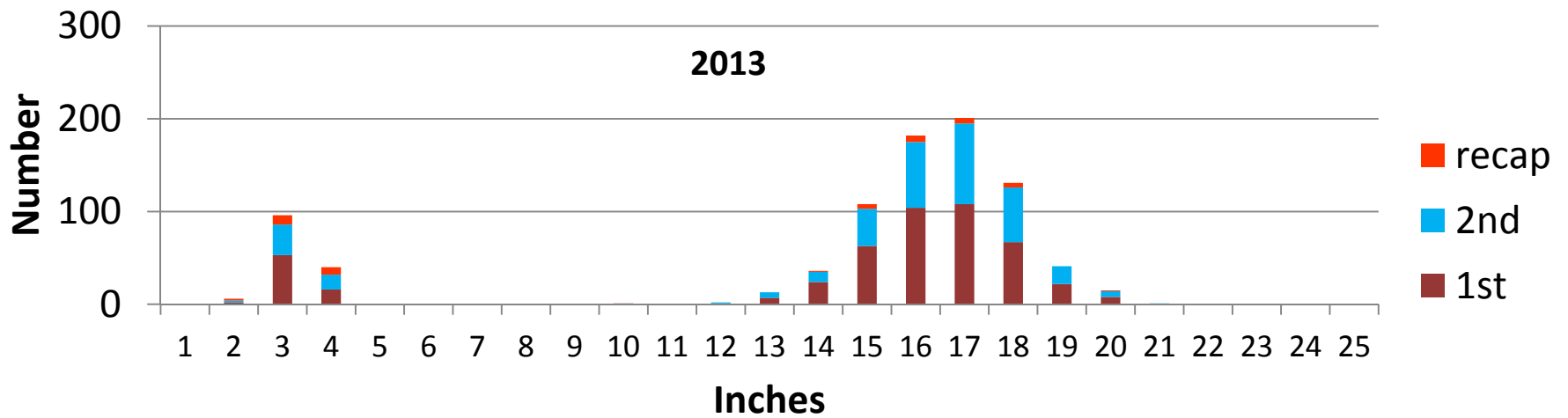
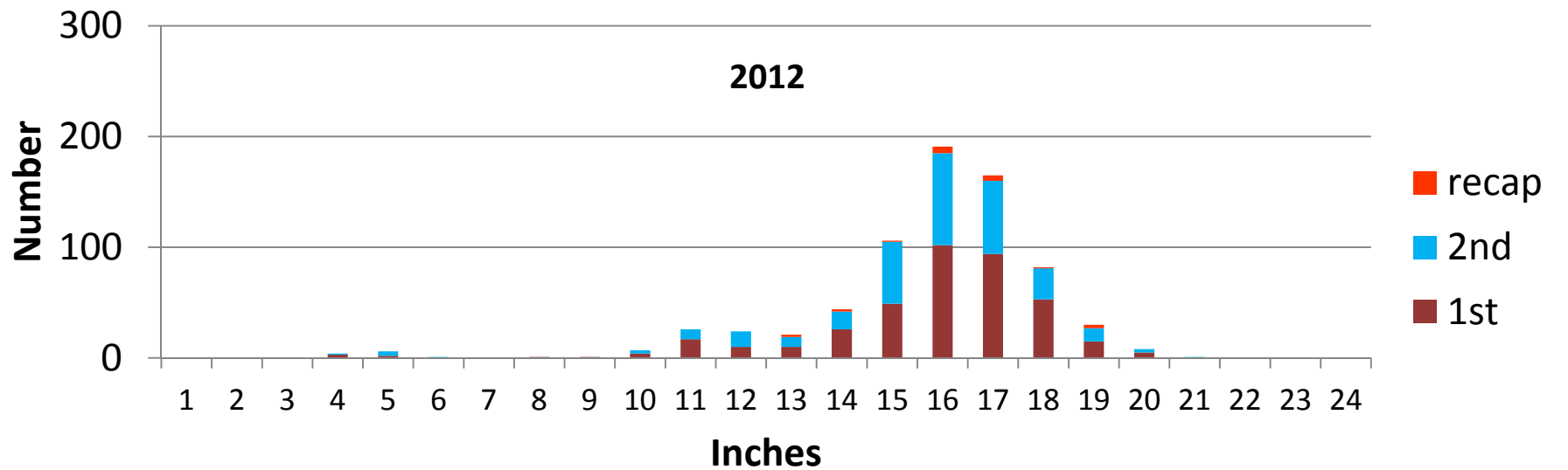


RAINBOW - UPPER SECTION



2011 no estimated

RAINBOW TROUT-UPPER SECTION LENGTH FREQUENCY



LOWER SHOCKING SECTION

4.0 Miles

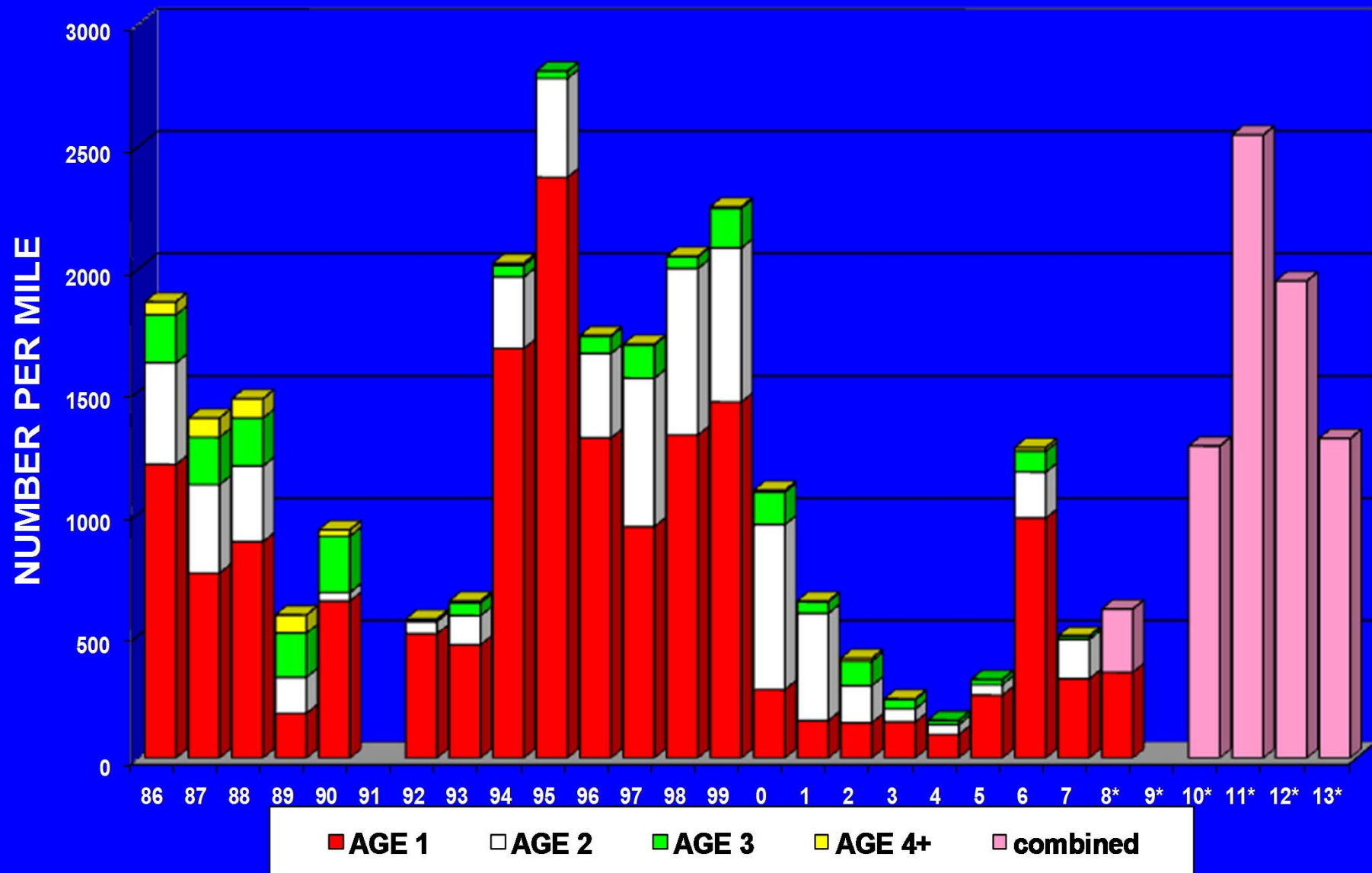
MALLARDS LANDING
FAS

2013 Estimate
1,307 brown trout >6"
409 rainbow trout > 6"

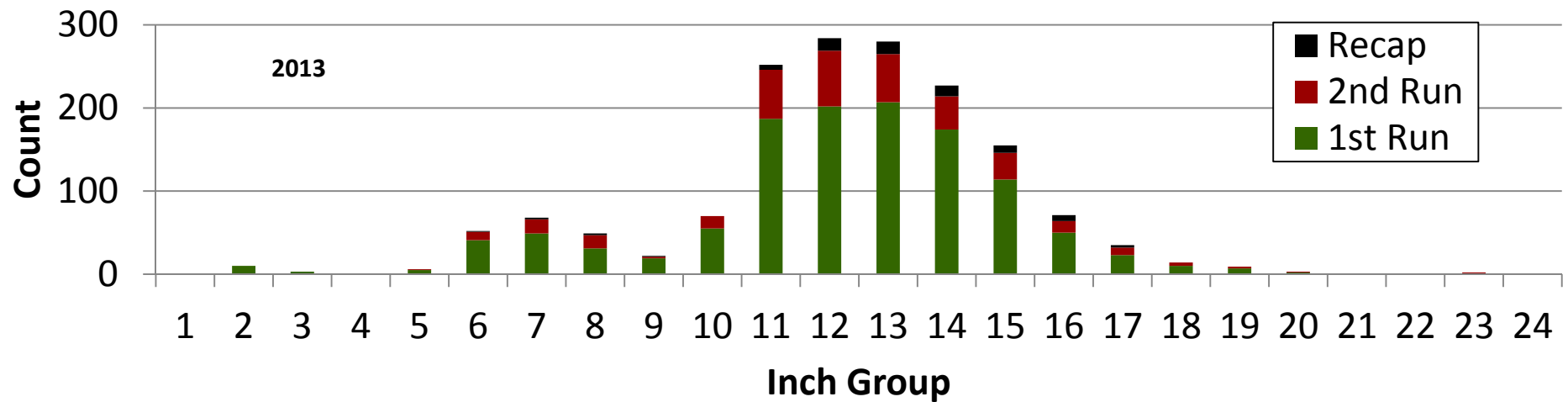
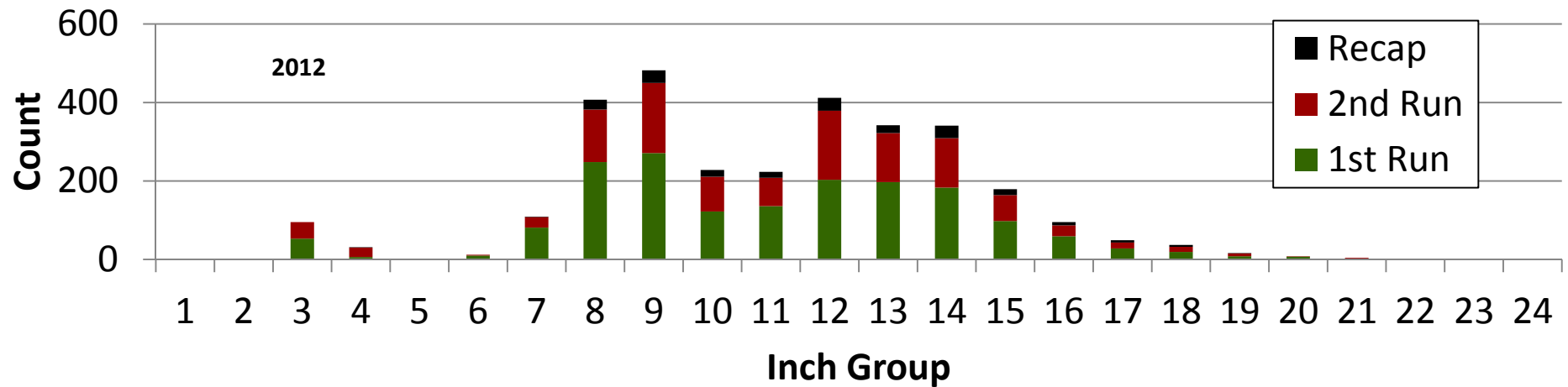


BROWN TROUT - LOWER SECTION

2013 Estimate 1,307/mile over 6"

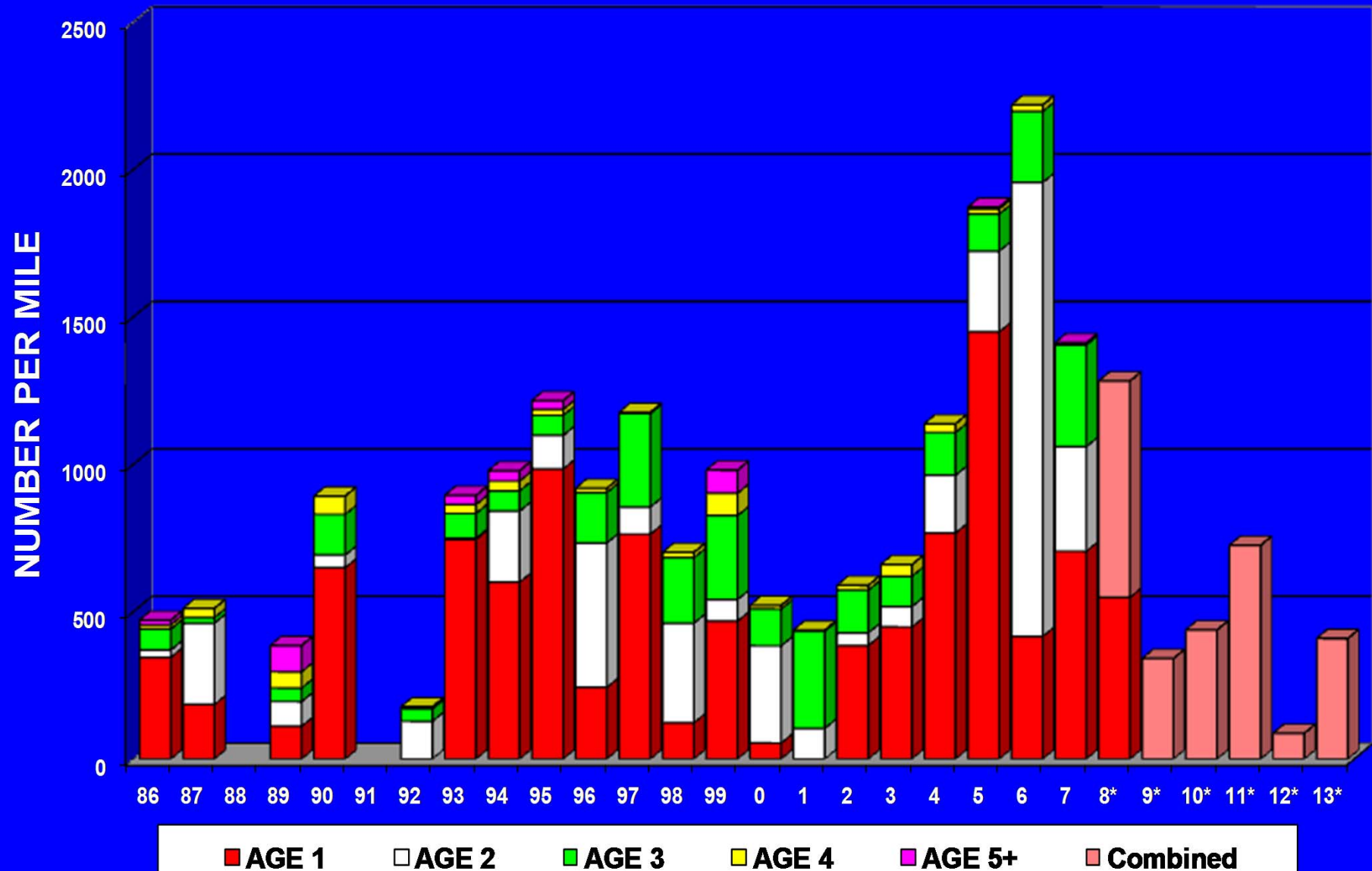


Brown Trout Lower Section Length Frequency

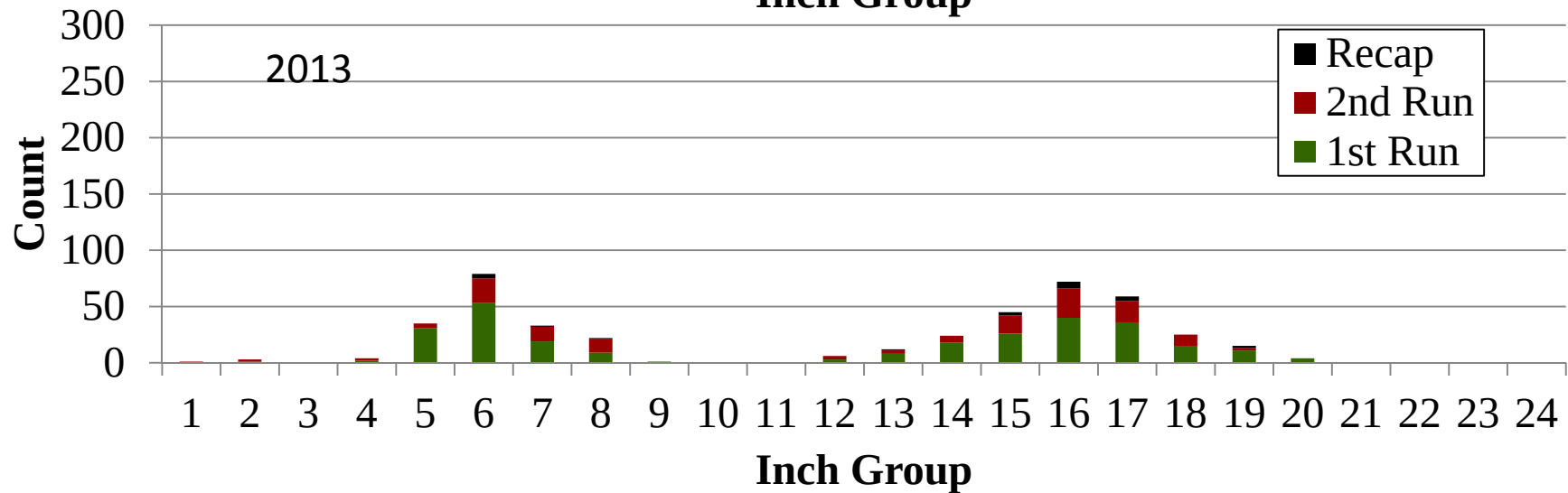
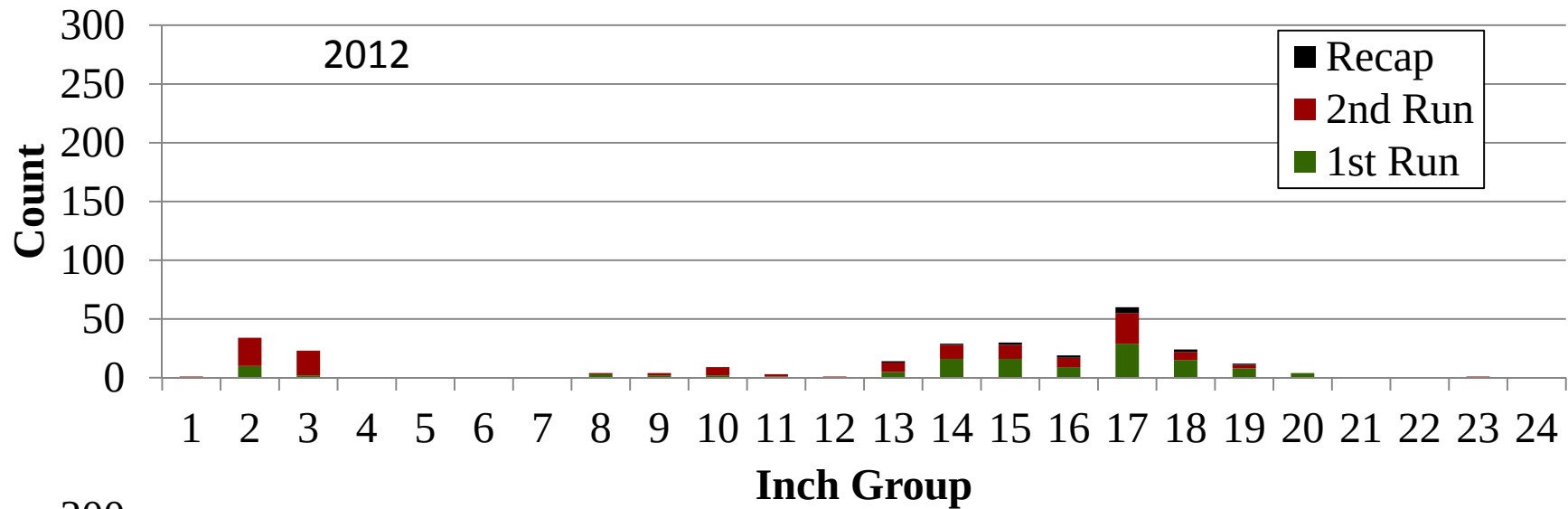


RAINBOW - LOWER SECTION

2013 Estimate 409/mile over 5"



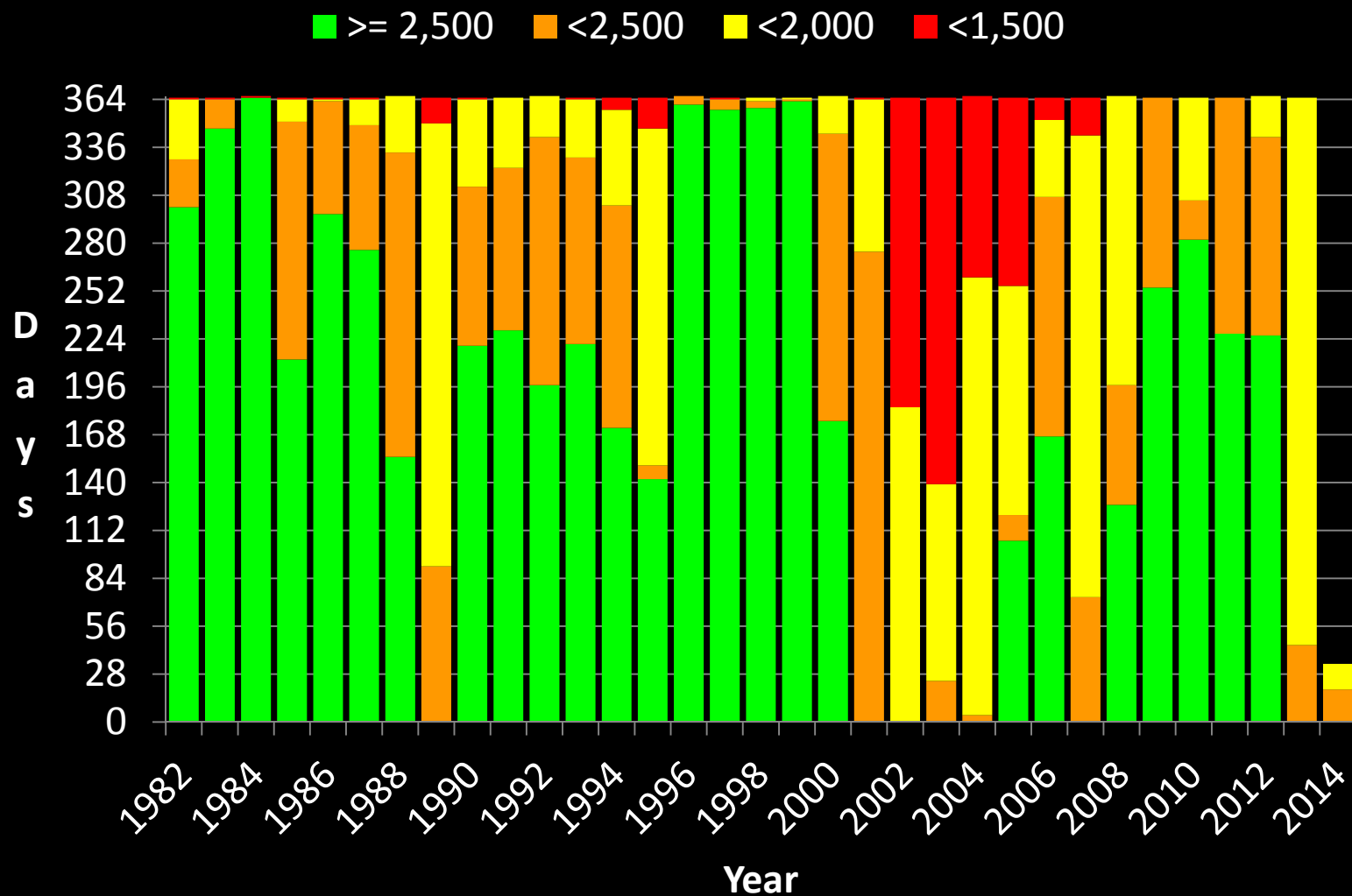
Rainbow Trout Lower Section Length Frequency



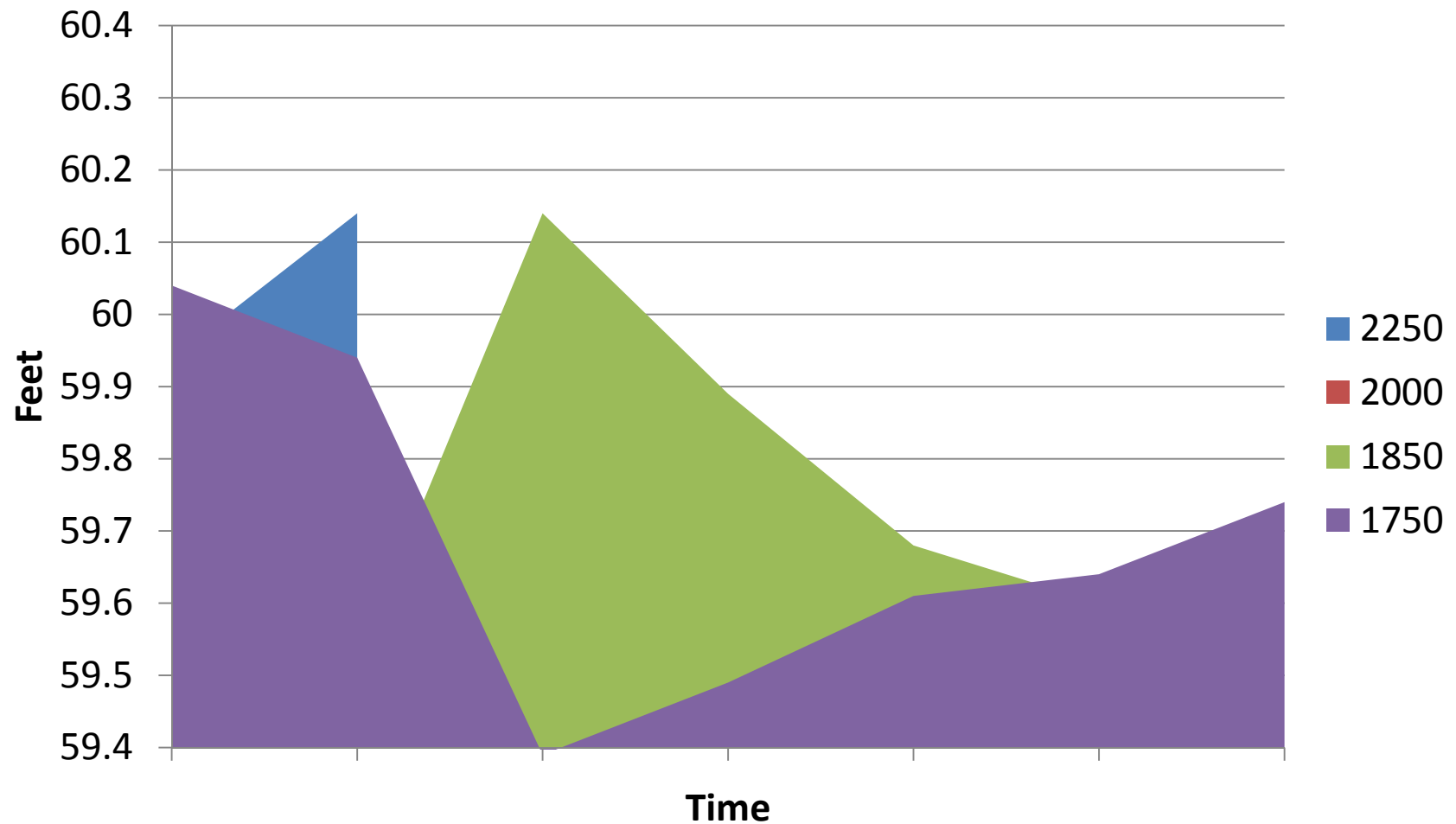
BIGHORN FLOW RECOMENDATIONS

- **Best Fisheries Flow - Greater than 2,500 cfs**
- **Preferred Minimum Fisheries Flow – 2,500 cfs
has maintained the strong Bighorn Fishery**
- **Water Savings Minimum Flow – 2,000 cfs**
- **Absolute Minimum Flow - 1,500 cfs**

Bighorn River Fisheries flows by Water Year

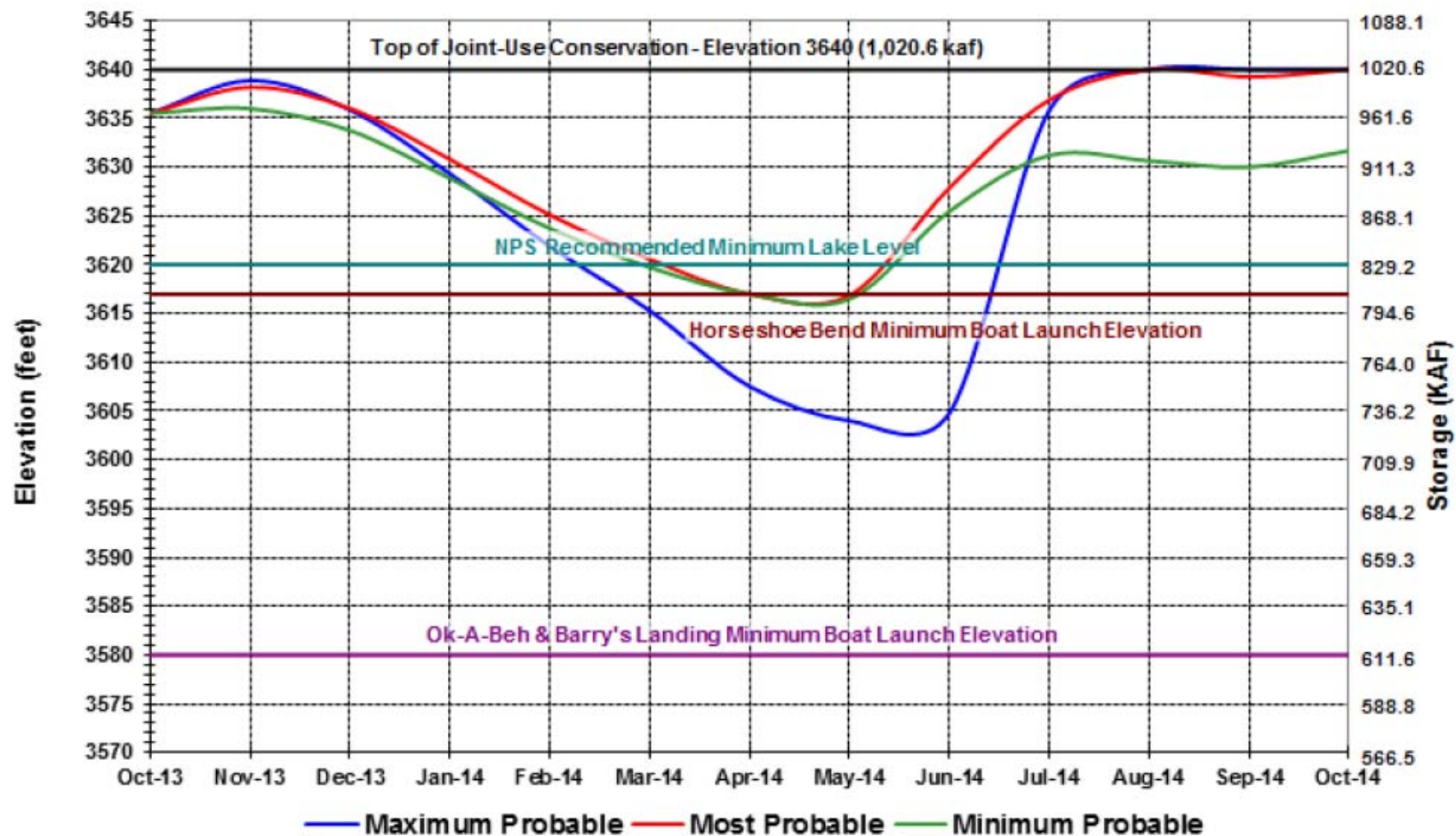


Shift-Various CFS values related to stage in 2012 and early 2013

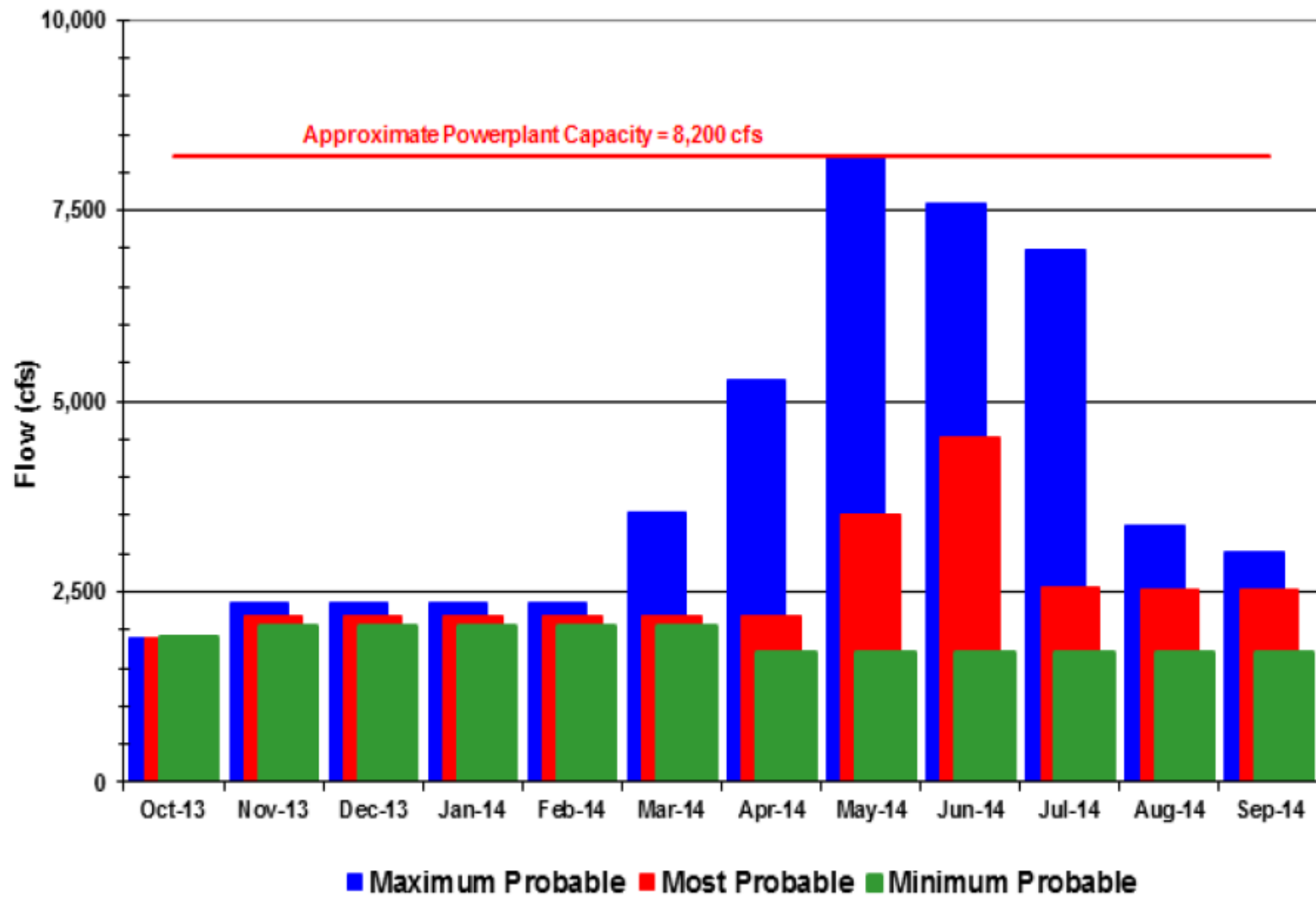


BIGHORN LAKE

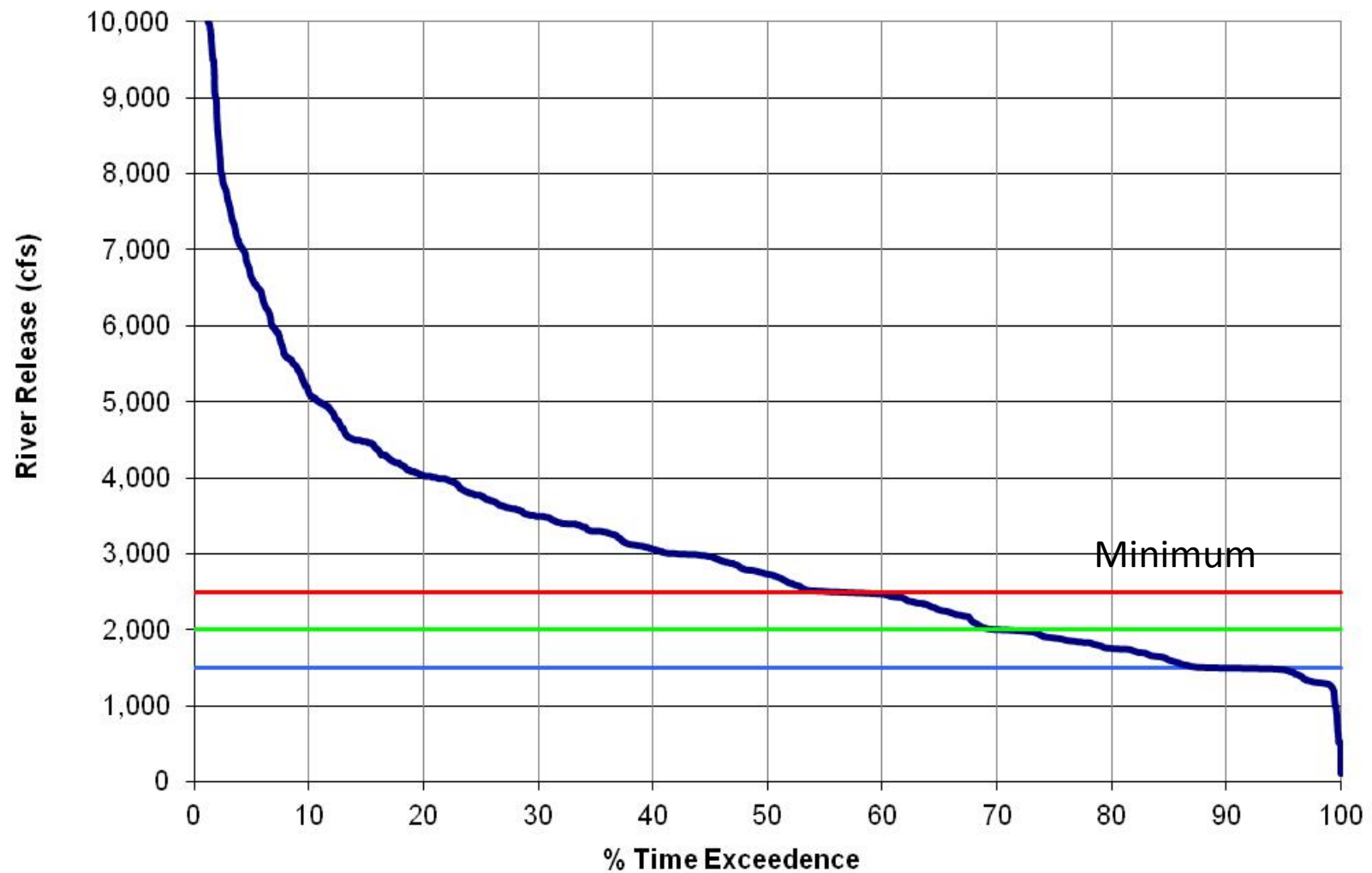
BIGHORN LAKE ELEVATION



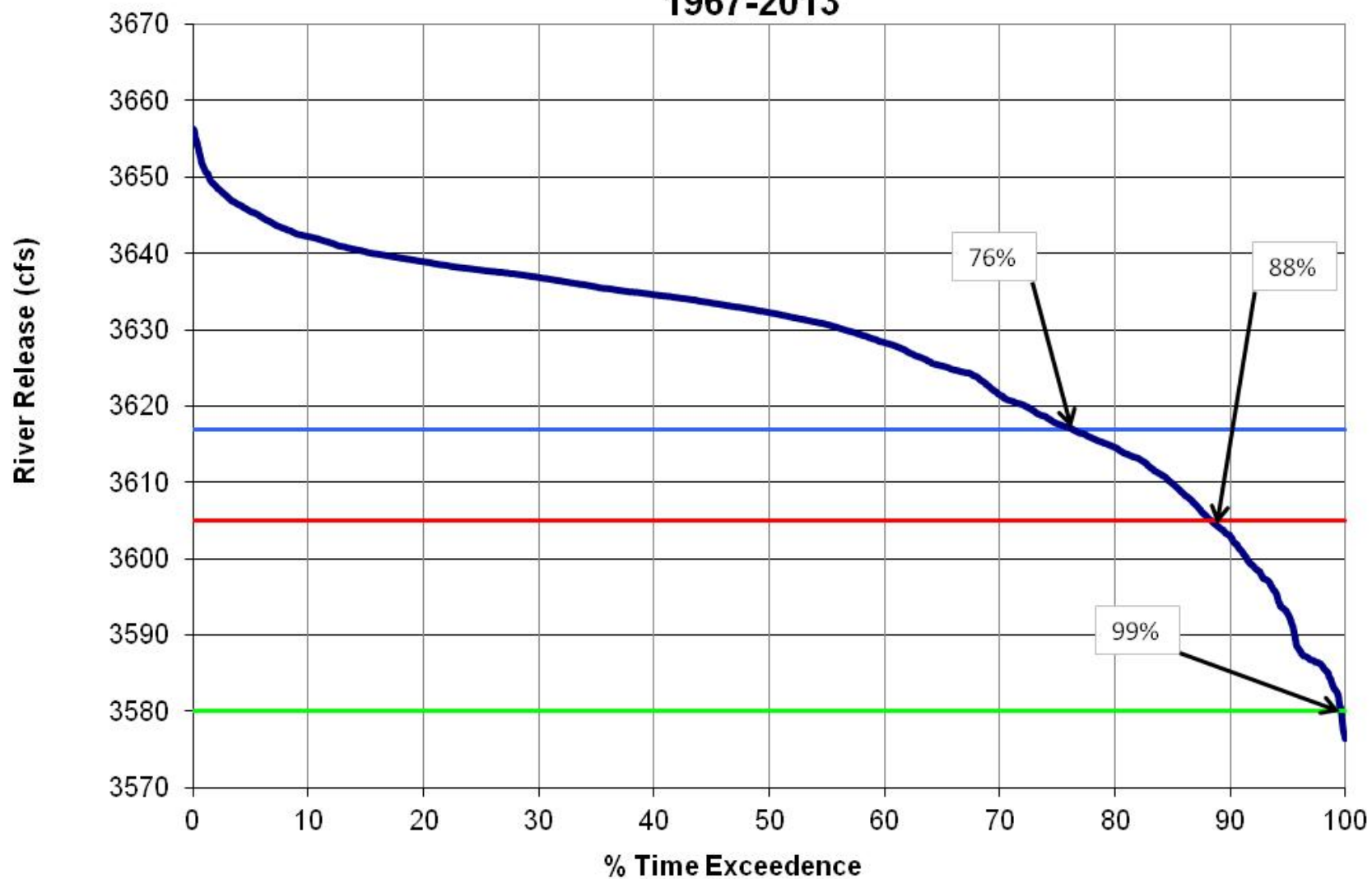
BIGHORN RIVER FLOW BELOW AFTERBAY



Bighorn River Water Year 1967-2013



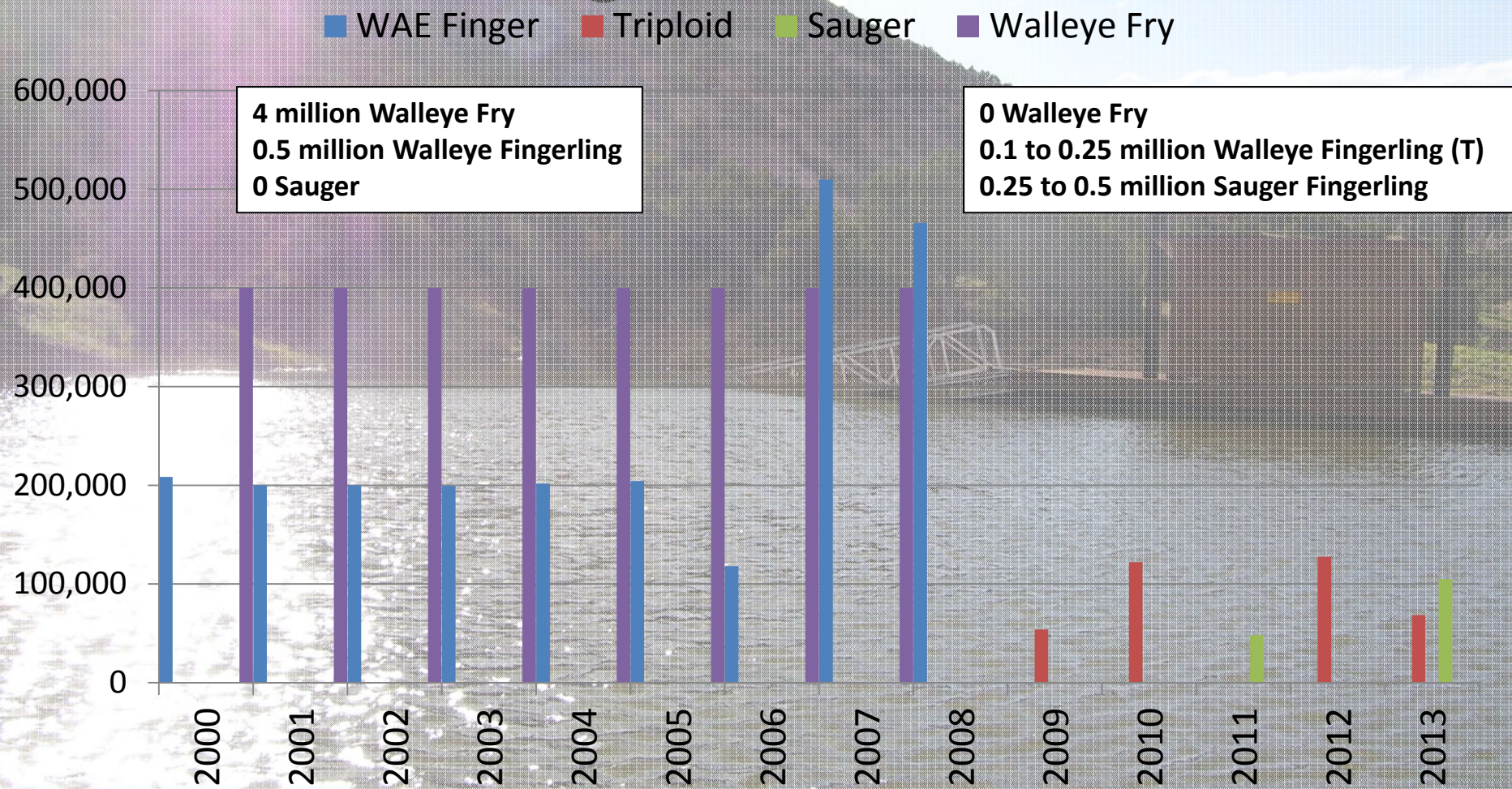
**Bighorn Lake Elevation
May 20 - September 5
1967-2013**



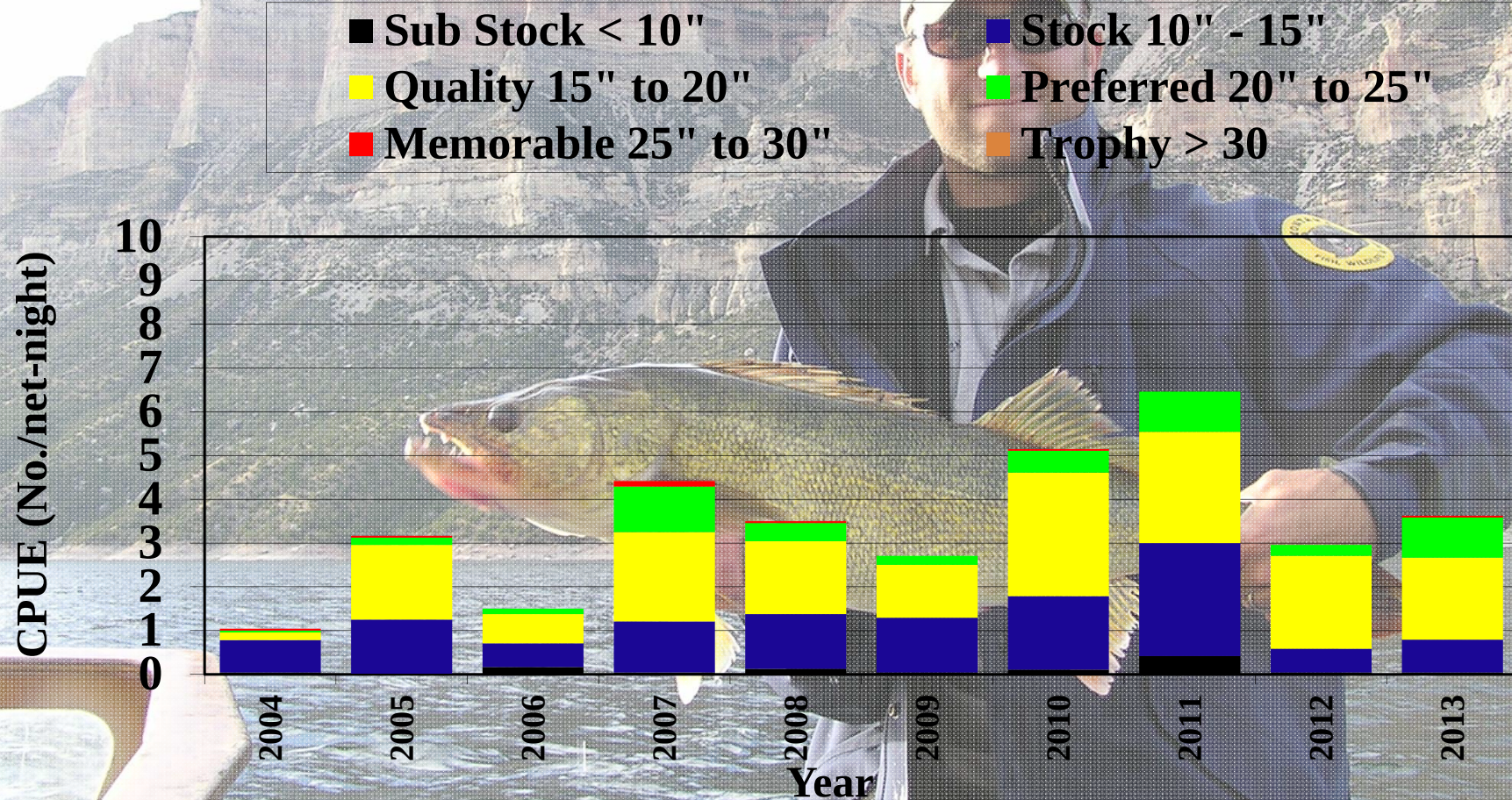
Bighorn Lake Sauger and Walleye



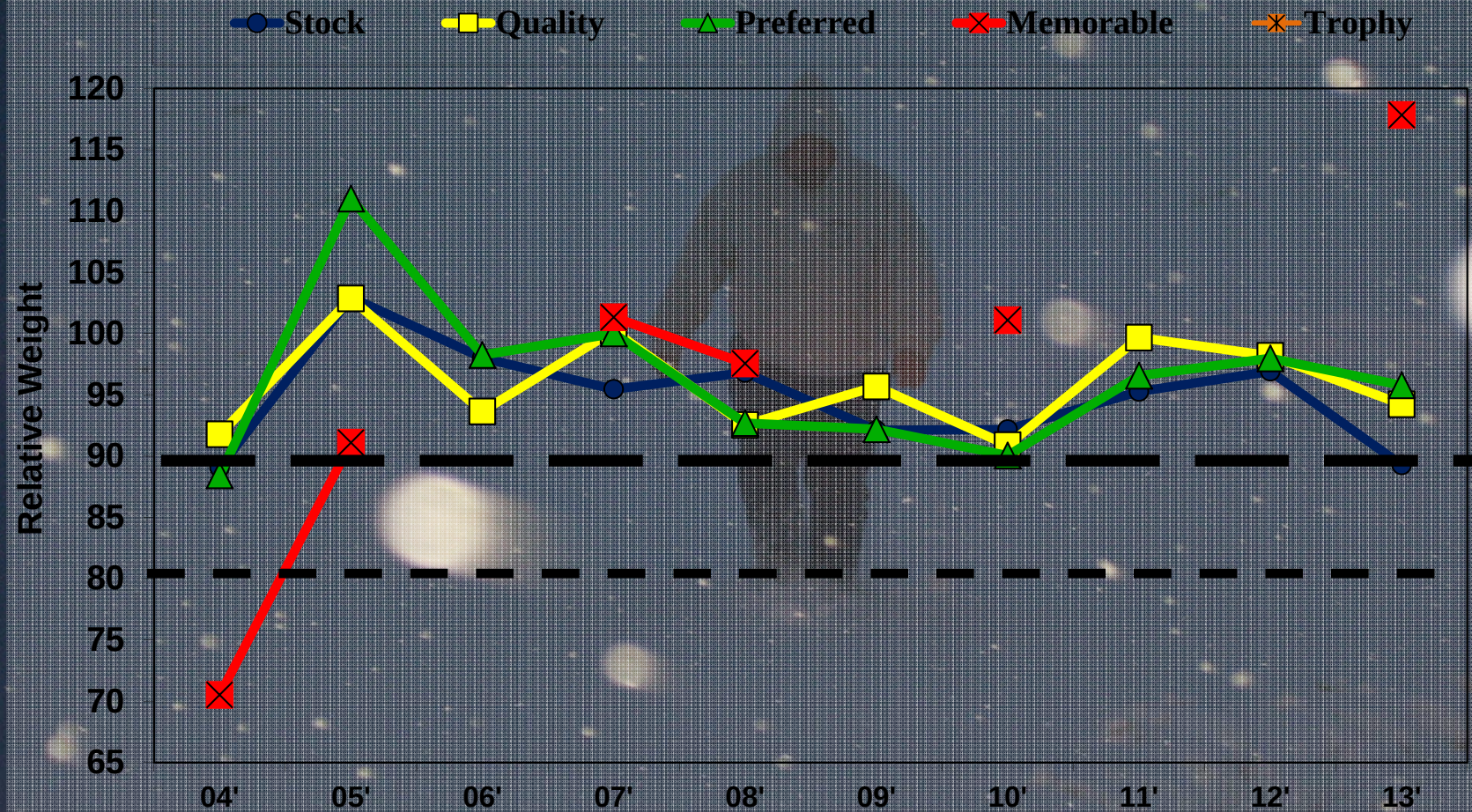
Montana Walleye and Sauger Stocking History 2000 to 2013 Bighorn Lake



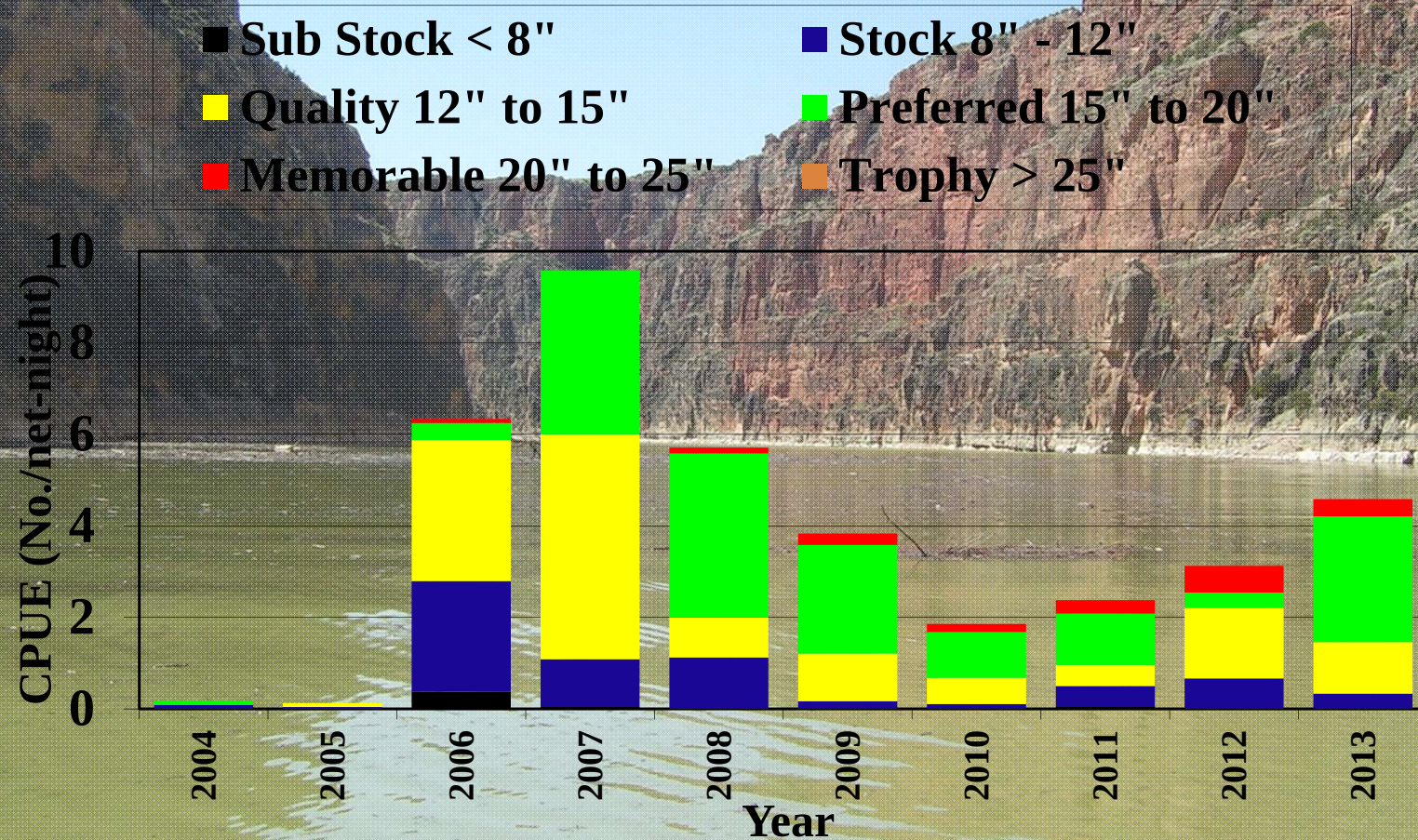
Bighorn Reservoir Walleye Abundance and Size Structure



Walleye Relative Weights Bighorn Reservoir

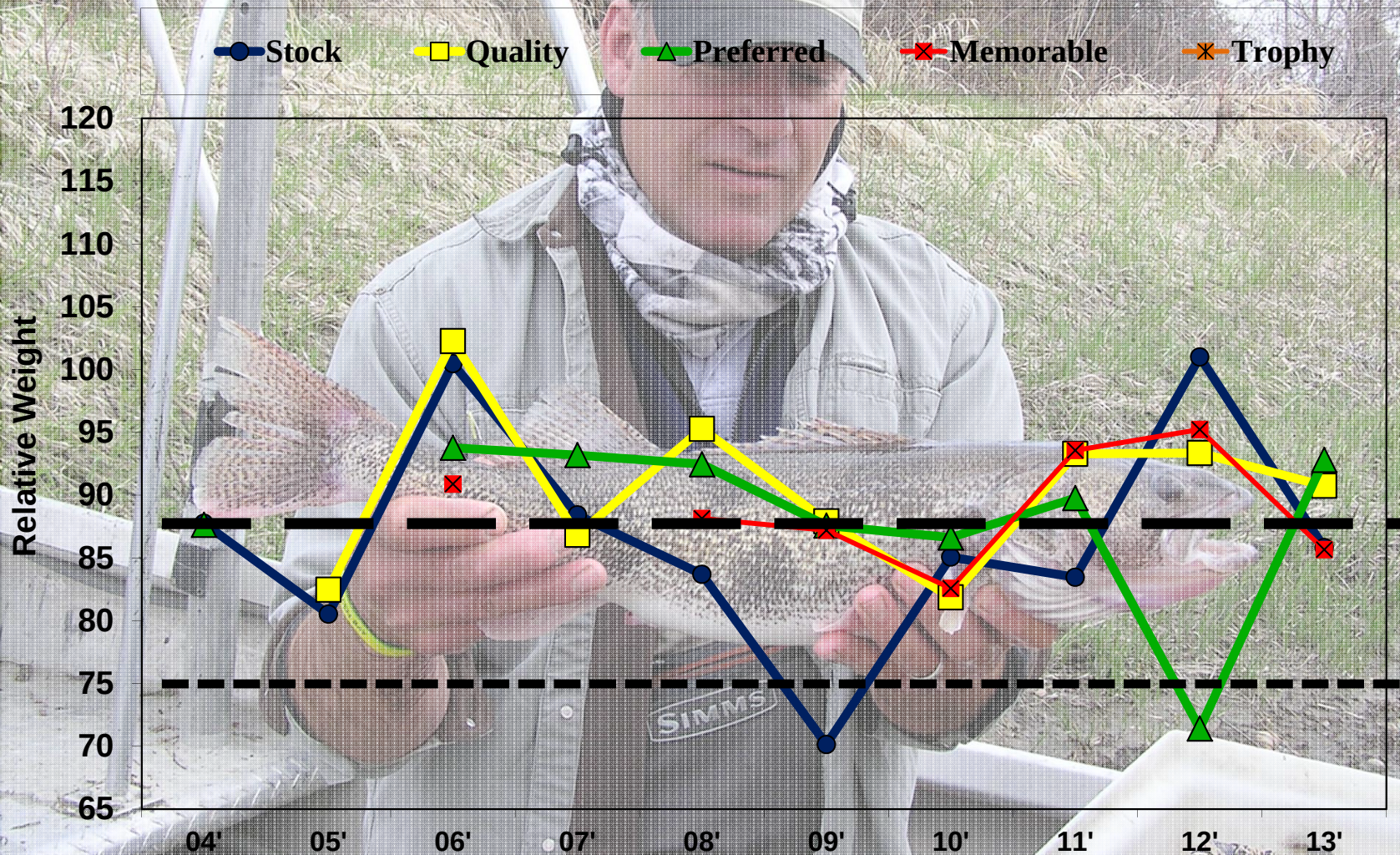


Bighorn Reservoir Sauger Abundance and Size Structure



Sauger Relative Weights

Bighorn Reservoir



2014

- Estimates for both sections anticipated
 - May Marking effort Upper Section below 3 mile.
 - June Recapture effort Upper Section
 - August Marking effort Lower Section above Mallards
 - September Recapture effort Lower Section.
- Have sections at Two Leggins and Arapooish for relative abundance data.
- Sauger egg take in Wyoming and stocking in Bighorn Reservoir
- Annual netting surveys to be conducted June and October Bighorn Reservoir.
- Evaluate how reservoir at full pool plus and early snow doesn't equal 2,500 cfs in River
- Evaluate shift changes against stage and implications for changing from CFS targets to stage targets.

**Thank-you for
providing a chance
to visit about
ongoing Bighorn
efforts**

