

# McNary Dam



Issue: High descaling rates noted on juvenile sockeye during 2014



# McNary Sockeye Evaluated

|      |                 | <u>Clipped</u> | <u>Unclipped</u> |
|------|-----------------|----------------|------------------|
| 2014 | Number Handled  | 27             | 4107             |
|      | Number Descaled | 3              | 581              |
| 2013 | Number Handled  | 67             | 2195             |
|      | Number Descaled | 4              | 186              |
| 2012 | Number Handled  | 53             | 3311             |
|      | Number Descaled | 4              | 164              |
| 2011 | Number Handled  | 98             | 1349             |
|      | Number Descaled | 5              | 97               |
| 2010 | Number Handled  | 34             | 9733             |
|      | Number Descaled | 0              | 689              |
| 2009 | Number Handled  | 184            | 1620             |
|      | Number Descaled | 7              | 88               |

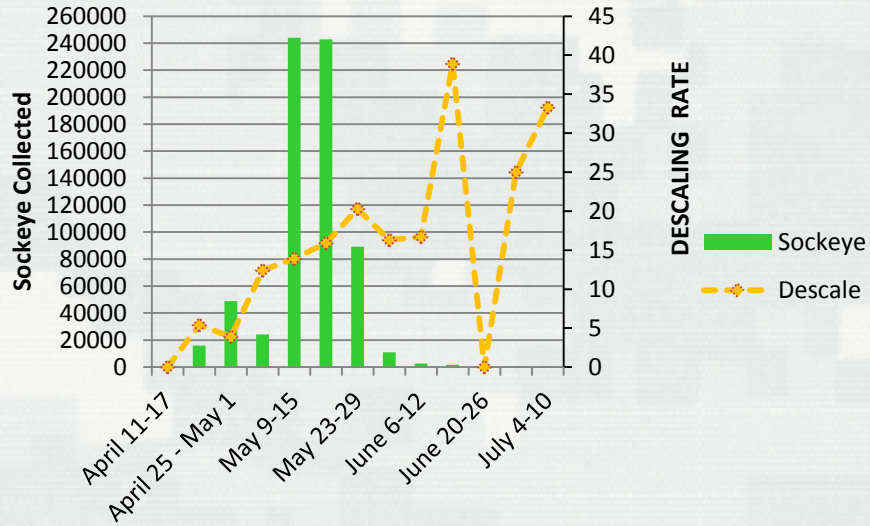


# McNary Sockeye Descaling

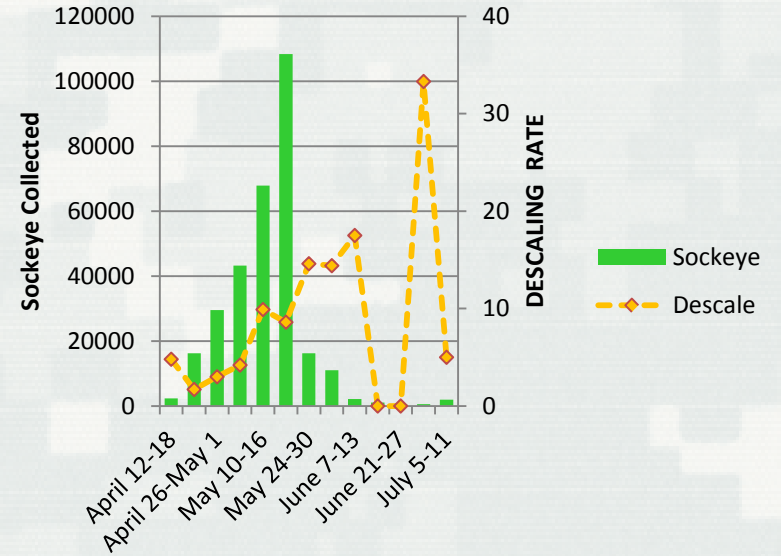
| Year |            | Collection     |                  |
|------|------------|----------------|------------------|
|      |            | <u>Clipped</u> | <u>Unclipped</u> |
| 2014 | Number     | 3,350          | 683,687          |
|      | % Descaled | 11.11          | 14.15            |
| 2013 | Number     | 10,723         | 303,914          |
|      | % Descaled | 6.0            | 8.5              |
| 2012 | Number     | 8,025          | 547,759          |
|      | % Descaled | 7.3            | 5.1              |
| 2011 | Number     | 5,615          | 131,149          |
|      | % Descaled | 5.1            | 7.2              |
| 2010 | Number     | 2,600          | 846,320          |
|      | % Descaled | 0              | 7.1              |
| 2009 | Number     | 5,250          | 97,040           |
|      | % Descaled | 4              | 5.4              |



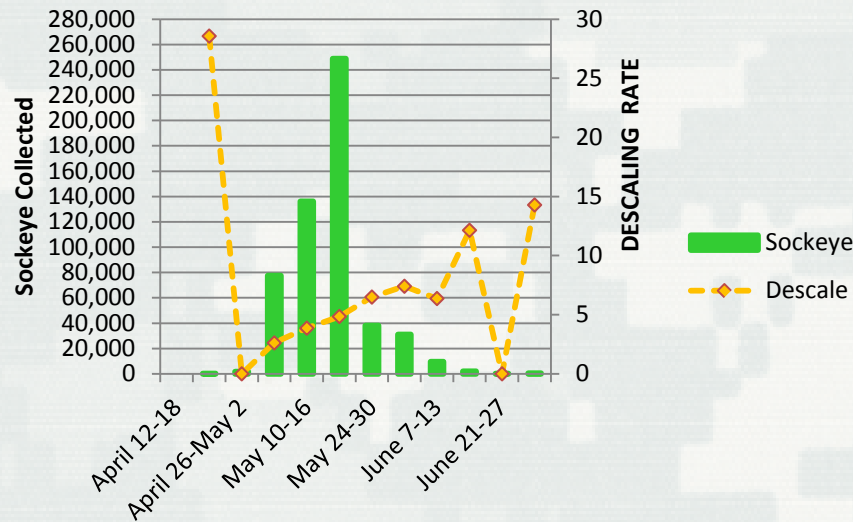
# 2014



# 2013

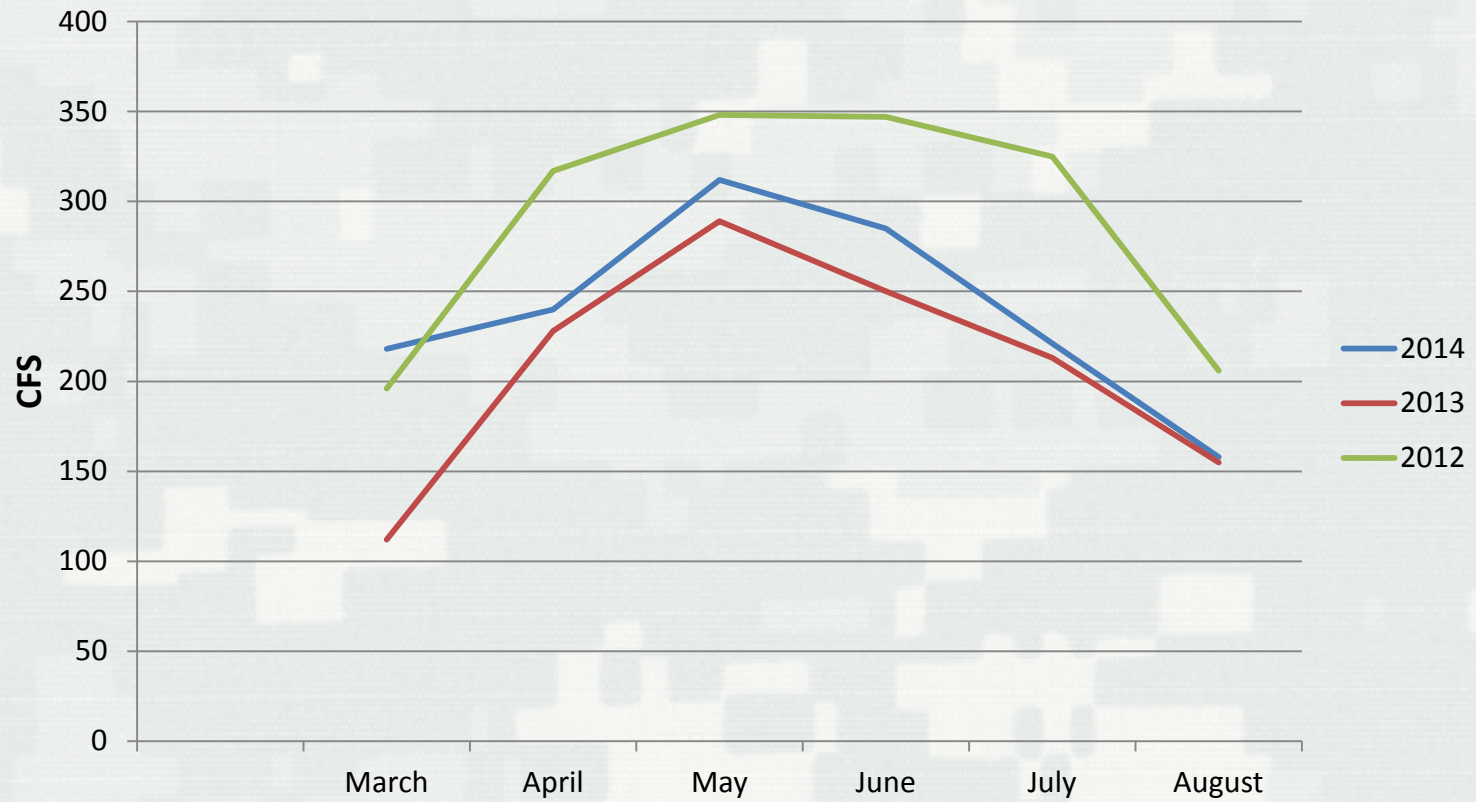


# 2012



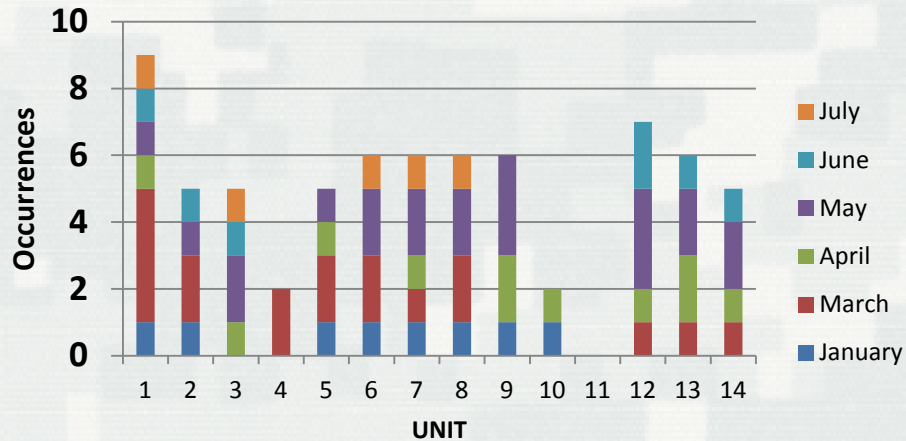
**BUILDING STRONG®**

## Annual Flow Curve

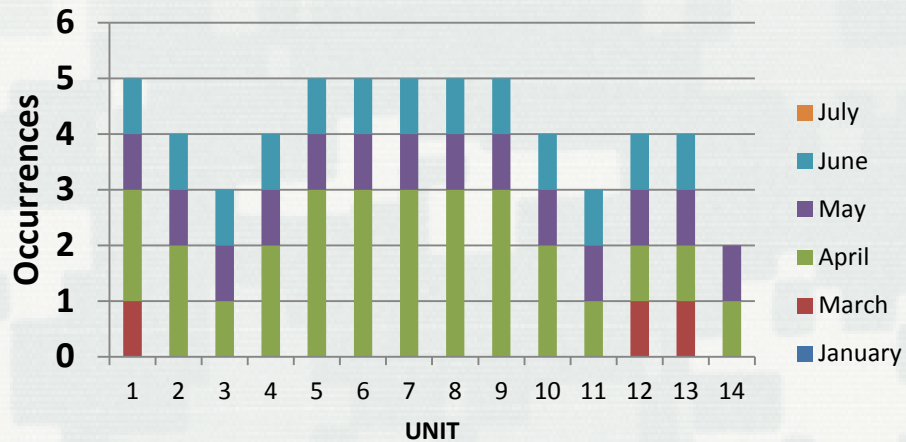


**BUILDING STRONG®**

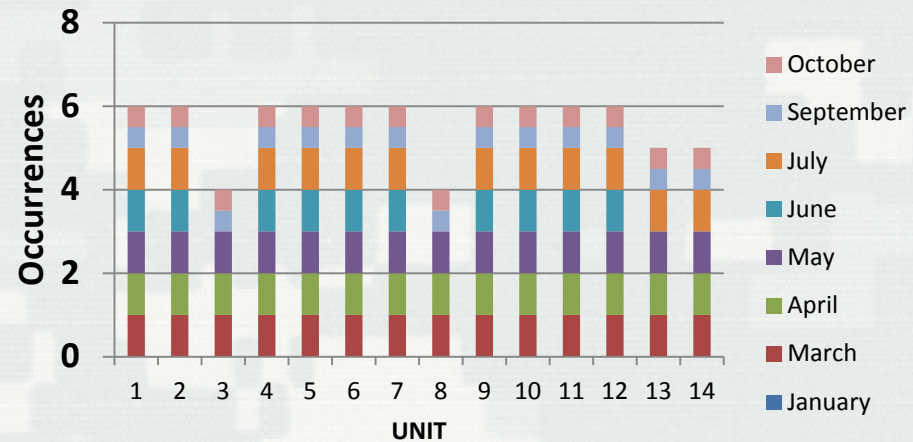
## 2014 Raking Frequency



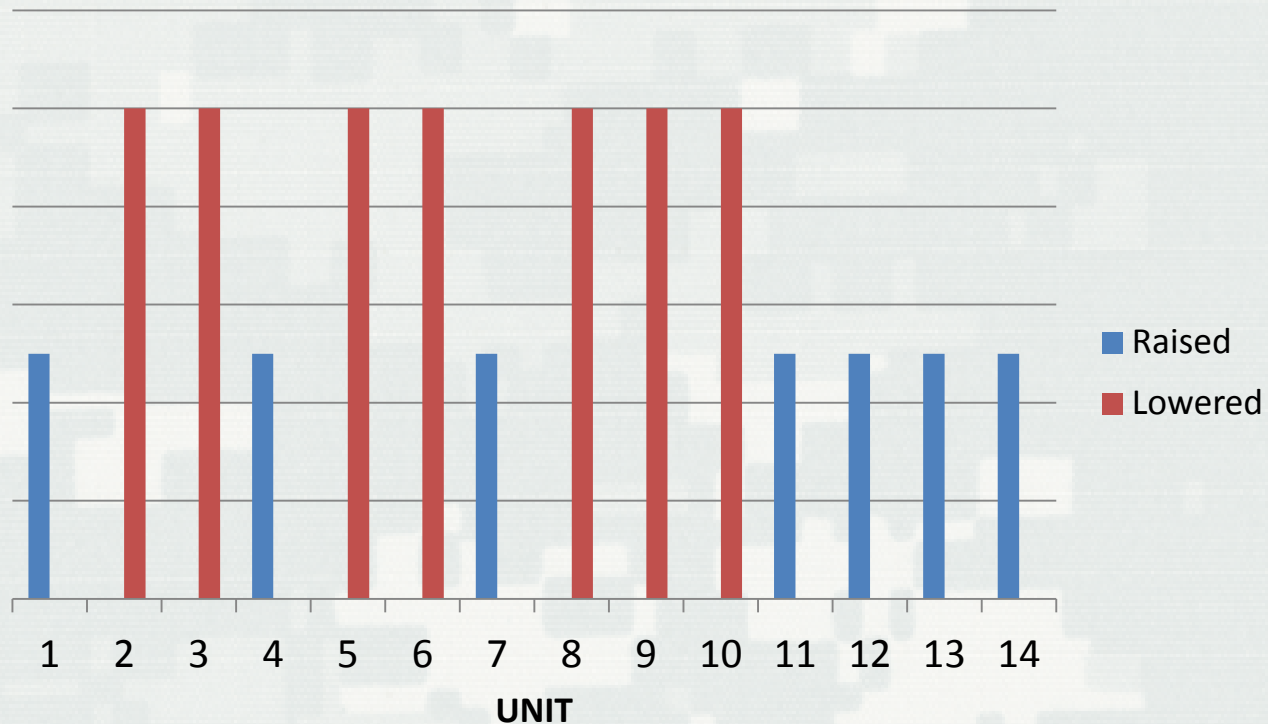
## 2013 Raking Frequency



## 2012 Raking Frequency



# 2014 UNIT CONFIGURATION OF HEADGATE POSITION



## Alternative Operation for Units with Headgate in Lowered Position

Operated at Mid-Point of 1% Peak Efficiency

|        |             |        |        |
|--------|-------------|--------|--------|
| 28-May | 0600 - 0700 | 29-May | 25 hrs |
| 29-May | 1600-0700   | 1-Jun  | 63 hrs |
| 2-Jun  | 0700-1600   | 2-Jun  | 9 hrs  |
| 5-Jun  | 0700-0700   | 6-Jun  | 24 hrs |



# 2014 Alternative Operation Evaluation

