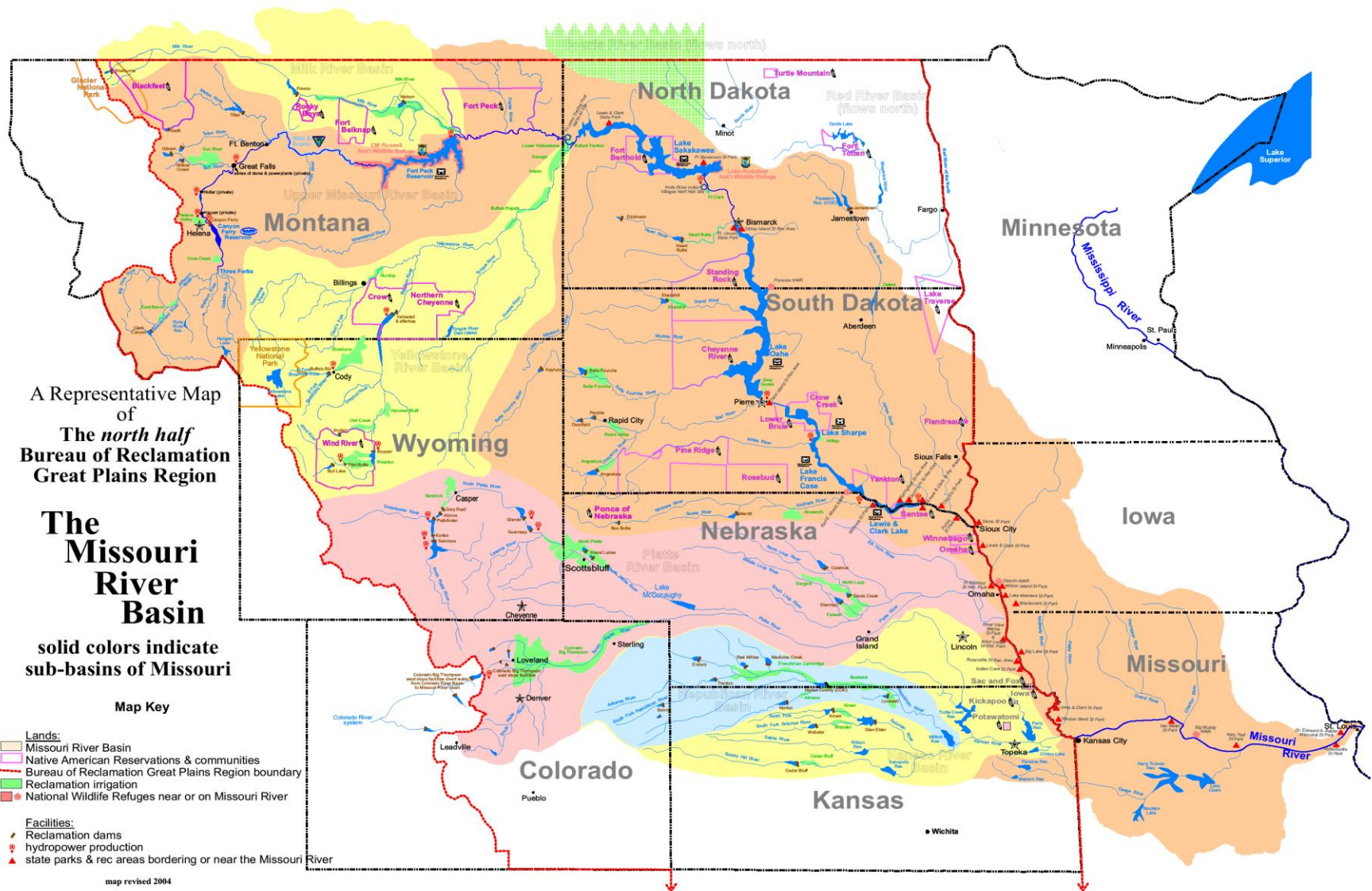


# APPENDIX V.5 MLDDA

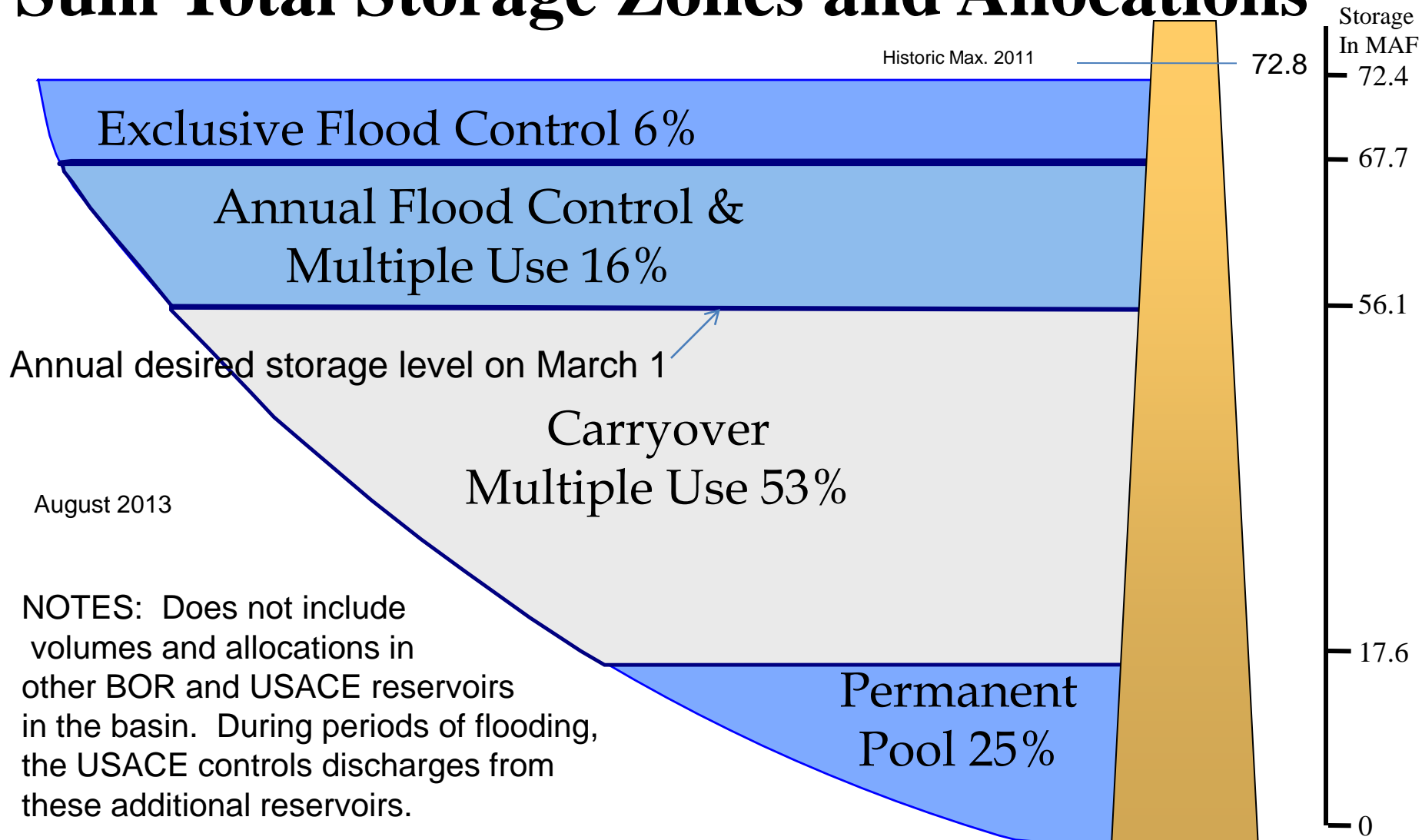
NOTE: This appendix contains revised slides obtained from various sources such as my personal files and agency webinars, handouts and personnel. Please send additions and corrections to [jbg6267@aol.com](mailto:jbg6267@aol.com).



Shows Tribal Reservations , USACE mainstem dams, BOR dams and irrigation projects, etc.

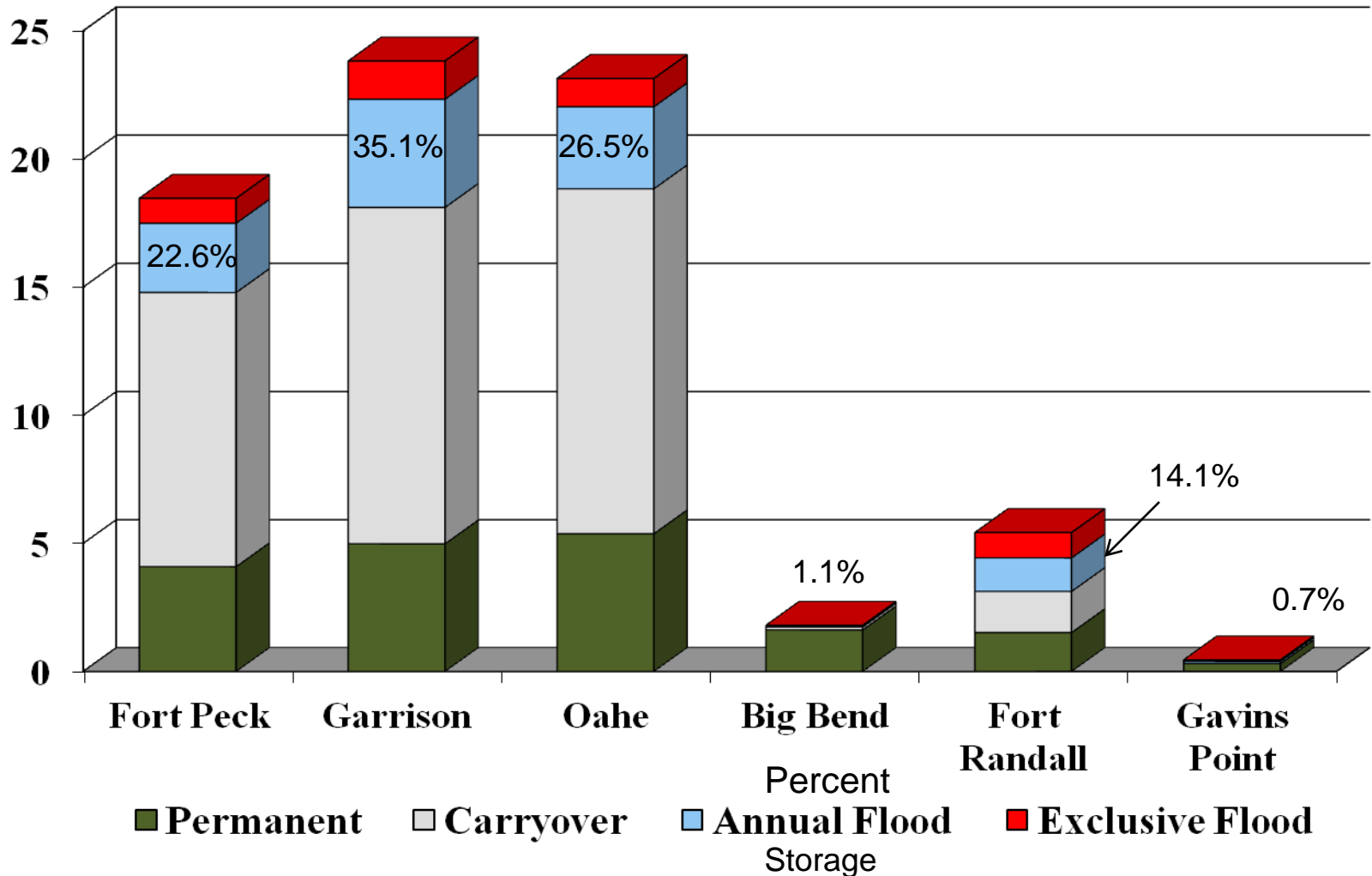
# Missouri River Mainstem System

## Sum Total Storage Zones and Allocations



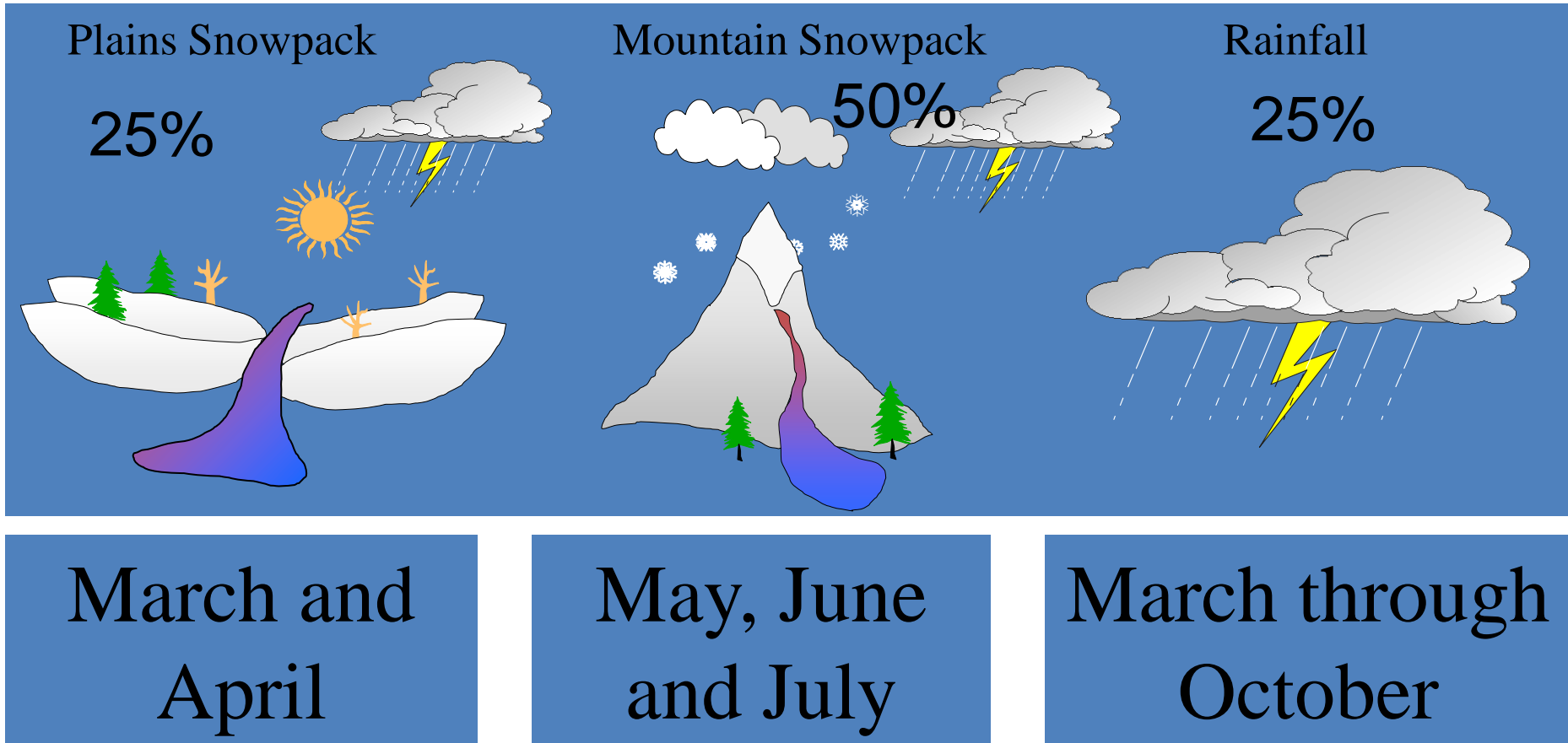
# Mainstem Reservoir Storage Capacity

Million Acre-Feet



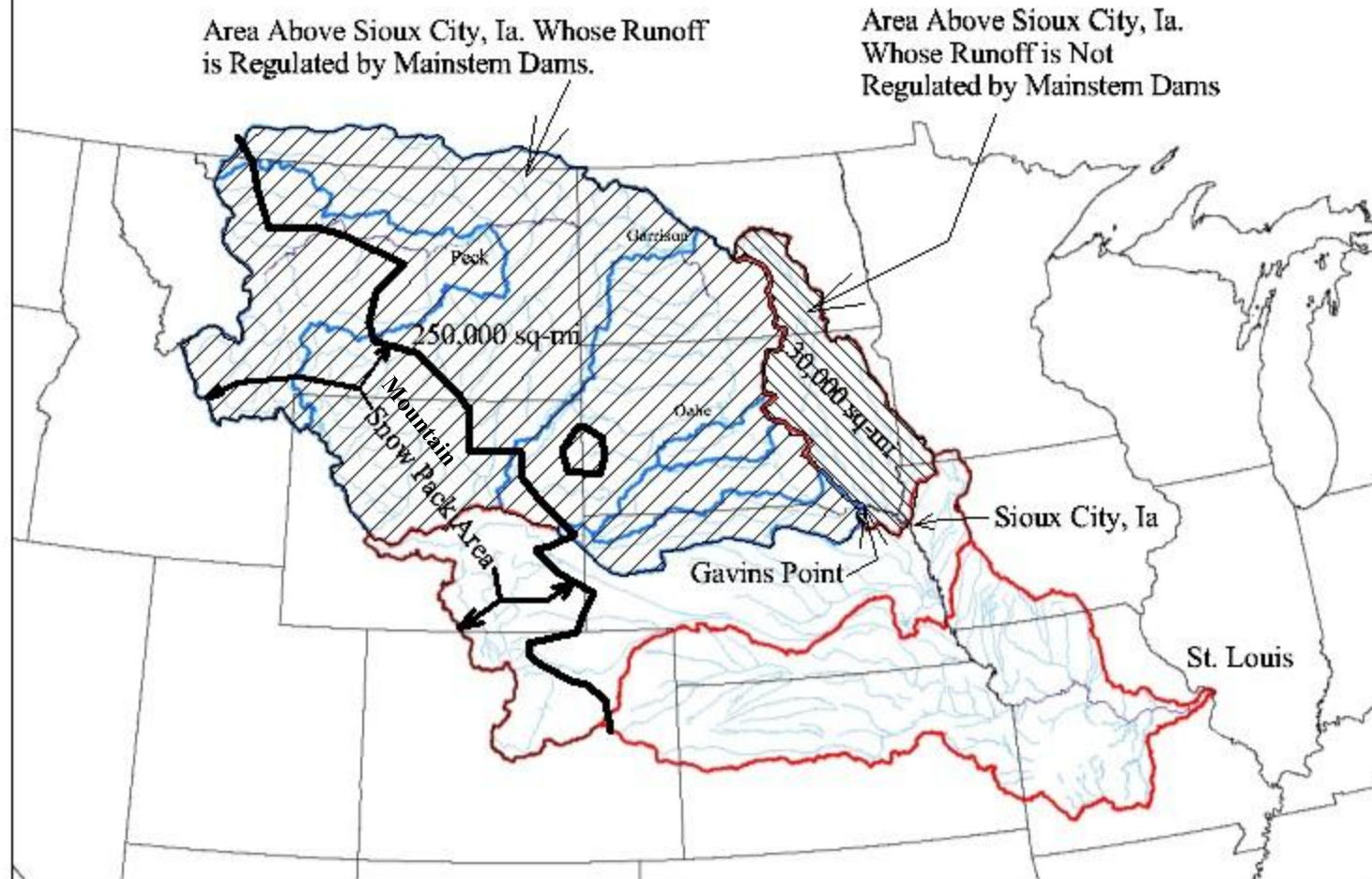
# Runoff Components

Upstream from Sioux City, Iowa



Runoff from approximately 10.7% of the basin area does not flow through any of the mainstem reservoirs

# Missouri River Basin Drainage Areas

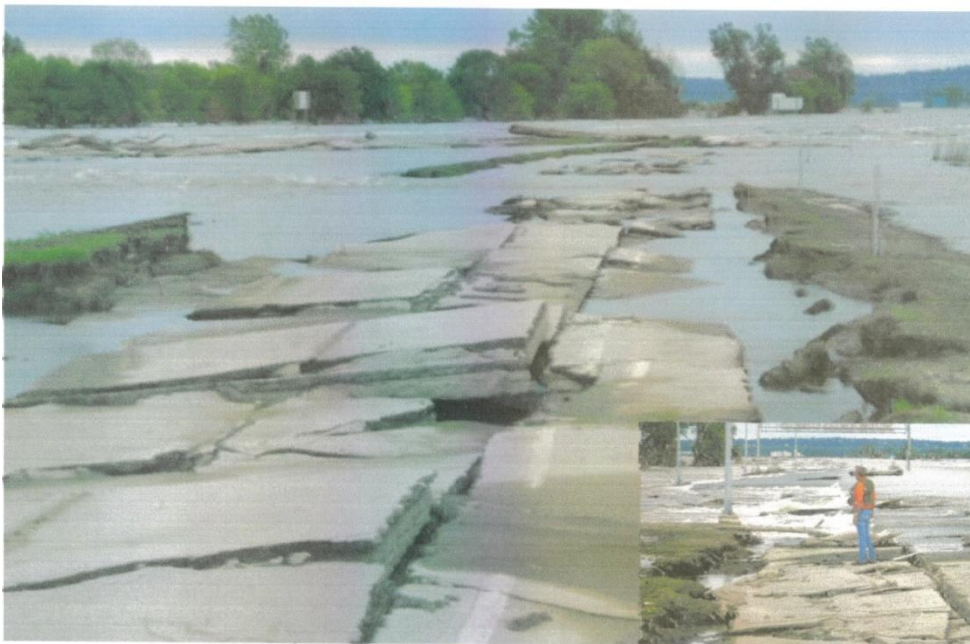






## *Service Assessment*

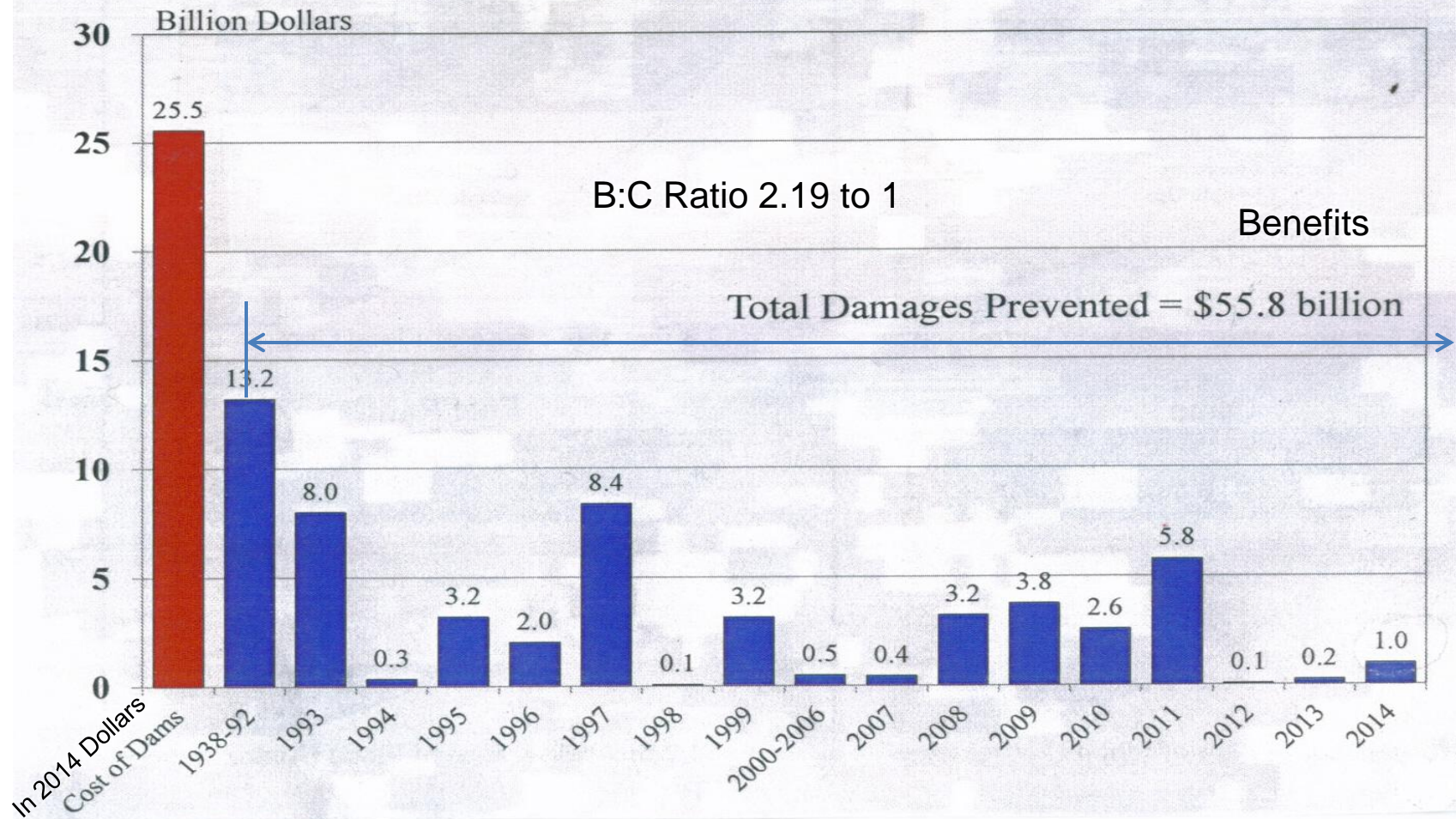
# **The Missouri/Souris River Floods of May – August 2011**



Typical flood damage to concrete road surface when flood waters pass over the road surface and embankment.

**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
National Weather Service  
Kansas City, Missouri and Salt Lake City, Utah

# Flood Damages Prevented by Mainstem Dams Indexed to 2014 Levels



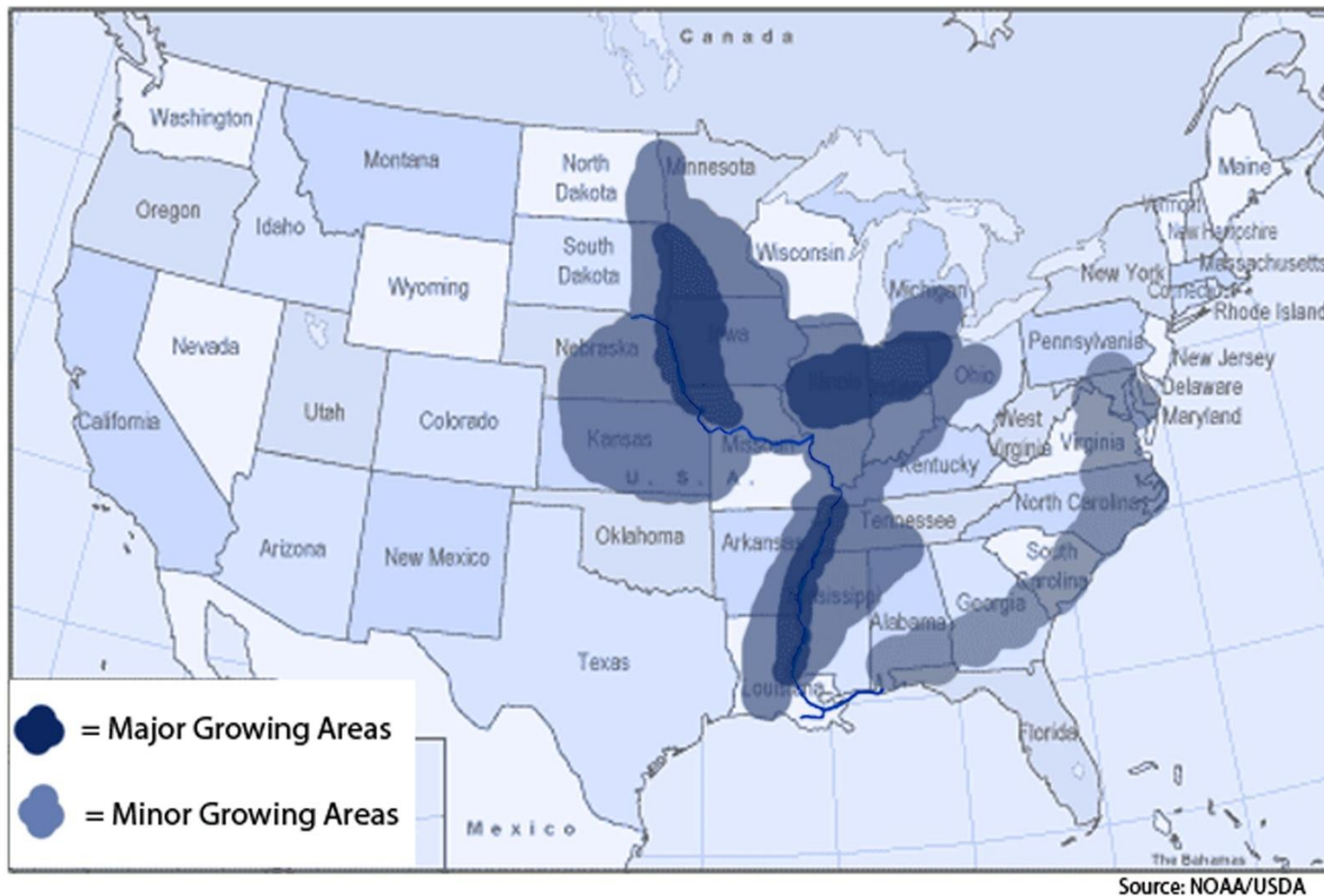


# U.S. Inland & Intracoastal Waterways



## Inland and Intracoastal Waterways

## Areas of Soybean Production in the United States

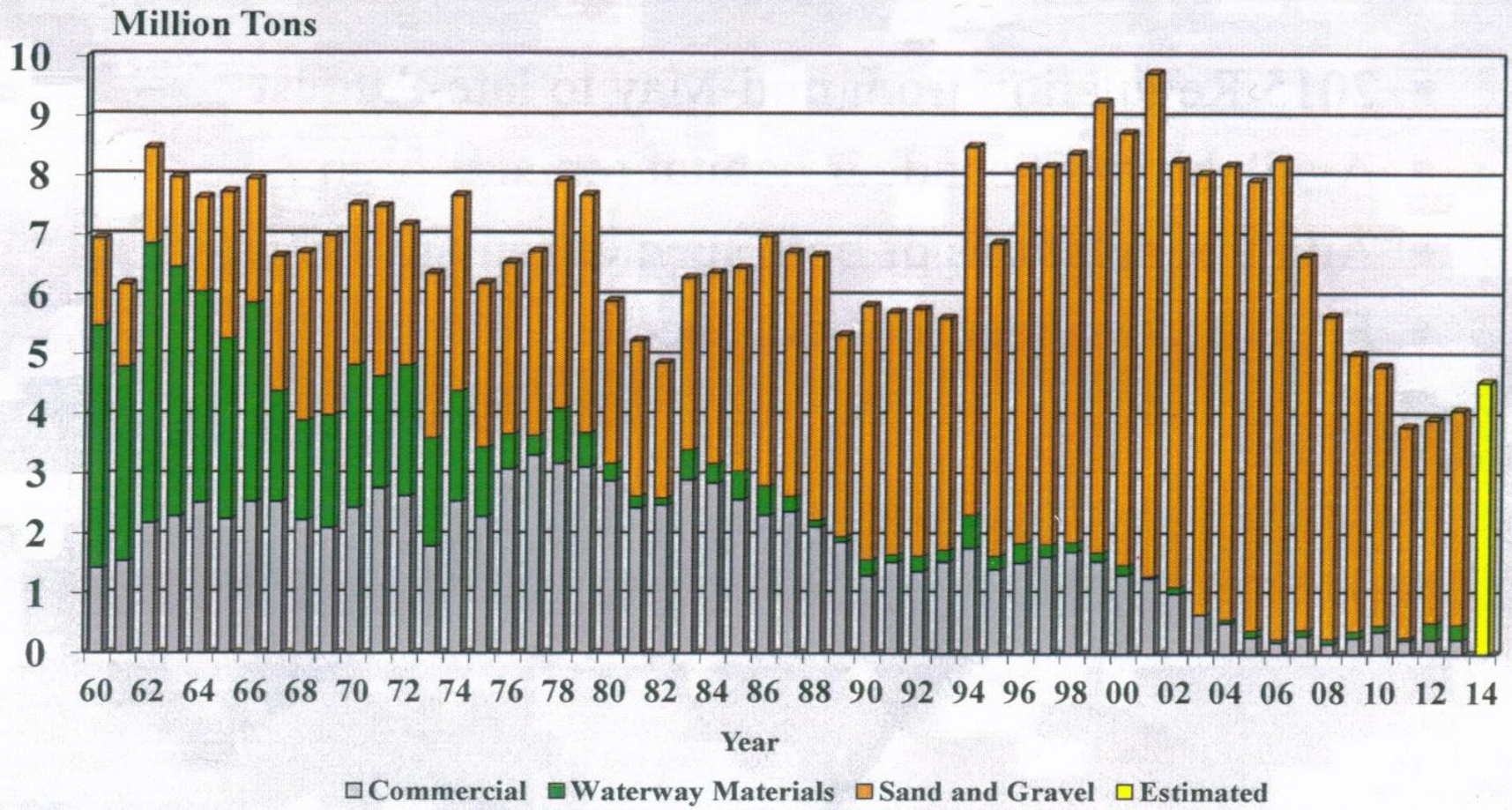


20 % of the Soybeans produced in Missouri are transported by barge.  
44 % of the United States Soybean production is transported by barge.

Source: soytransportation.org



# Missouri River Total Navigation Tonnage



# Endangered Species Act of 1973

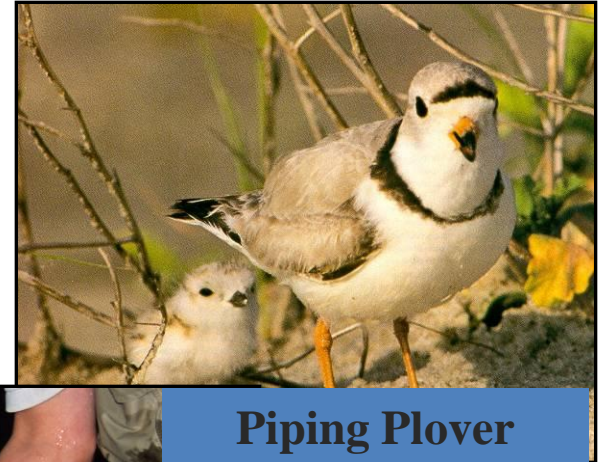
Each Federal agency shall... ensure that any action authorized, funded, or carried out by such agency... is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat...



**Interior Least Tern**

Listed "Endangered" 1986

The tern was delisted as endangered, threatened or a species of concern in January, 2015



**Piping Plover**

Listed "Threatened" 1986

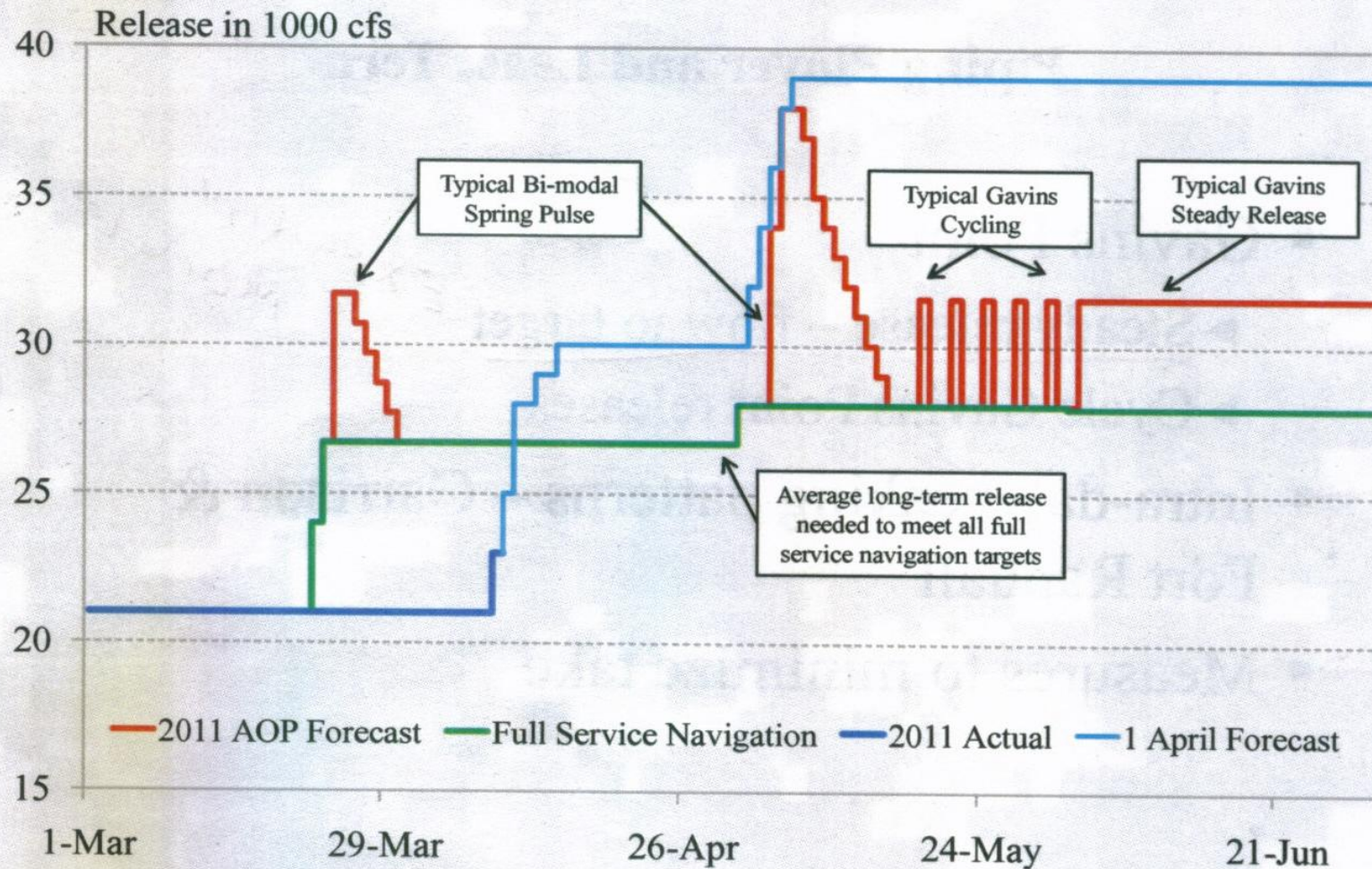


**Pallid Sturgeon**

Listed "Endangered" 1990



# Gavins Point Releases



Releases for 2011. Shows typical spring pulses and navigation support releases.