

# SWB Progression

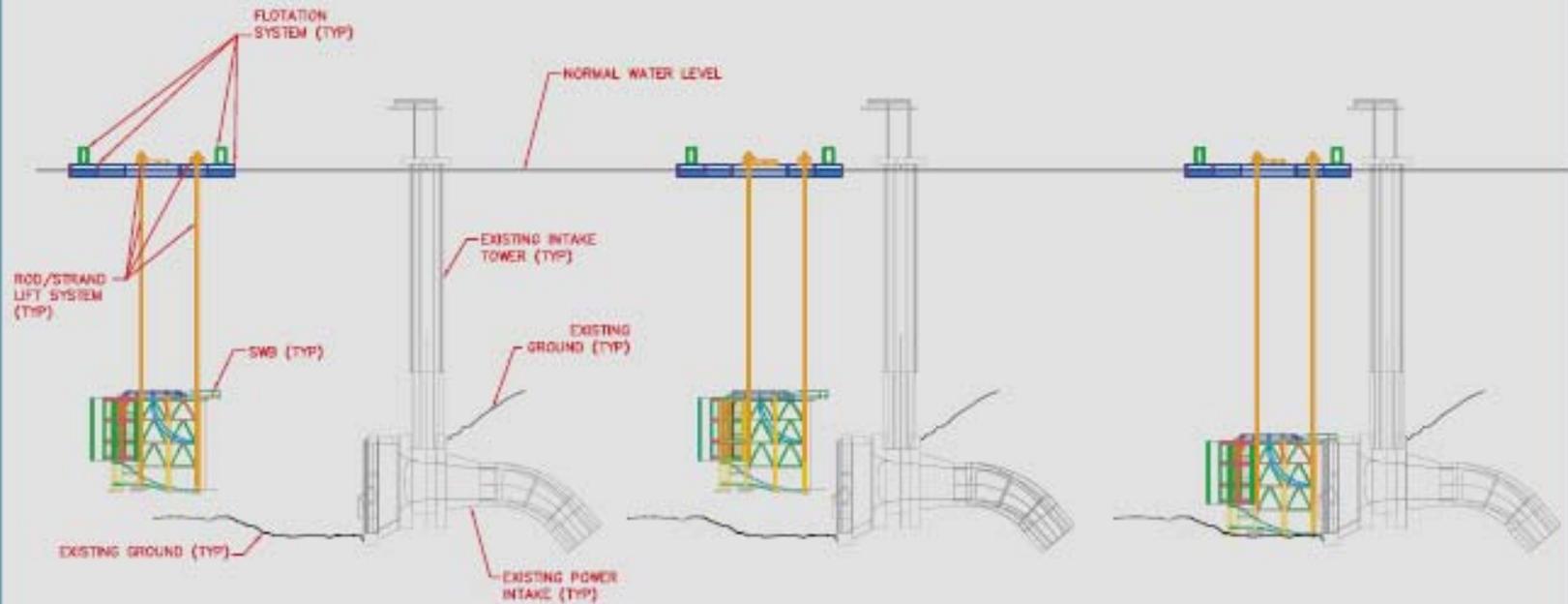


**Total Weight of SWB = 1.33 Million pounds**

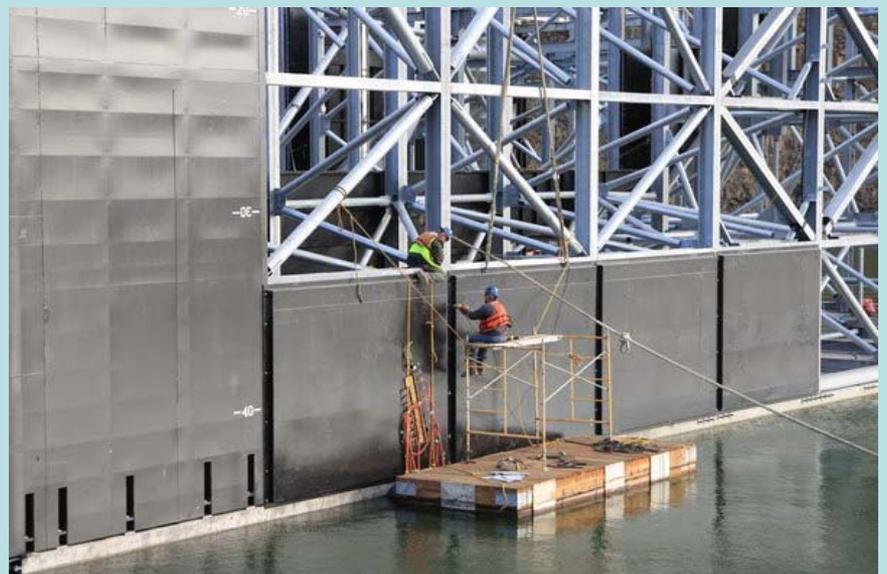
# SWB Pushing Out



# LOWER SWB & CONNECT TO INTAKE

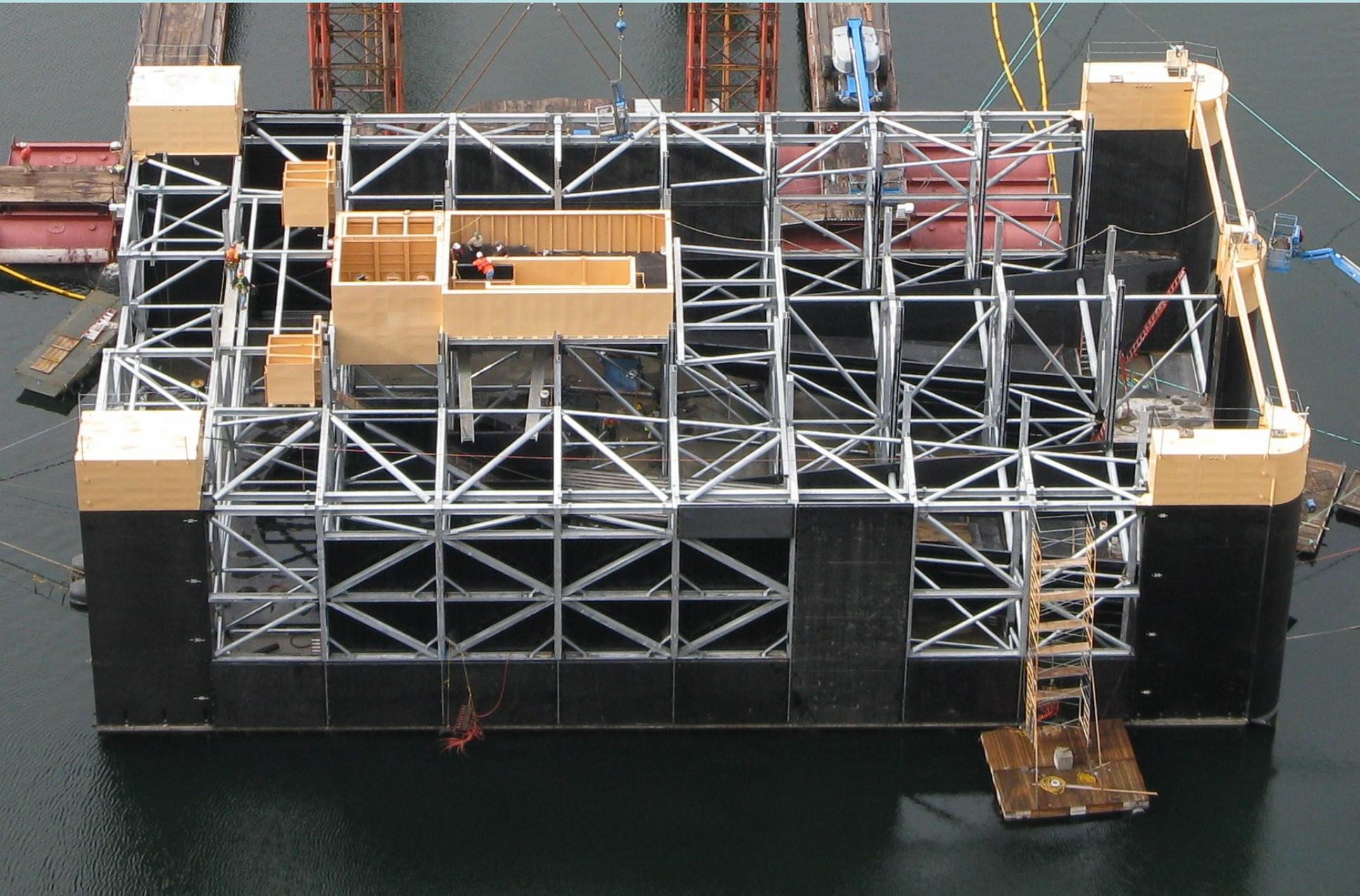


# SWT Progression



- 2.5 Million pounds of steel
- Total Weight ~ 5 Million pounds

# SWT – 11-6-08



# SWT – 12/2/08



# SWT – 1/11/09



2/12/2009



# VFC Fabrication



# VFC Section On-site



Tension



MAR 18 2009

# VFC Construction





# VFC With Buoyancy Tanks



# VFC Construction





# Lessons Learned

## – Design

- Maintenance Emphasis
  - Maintenance in the dry
  - Don't recreate the wheel – use off the shelf items

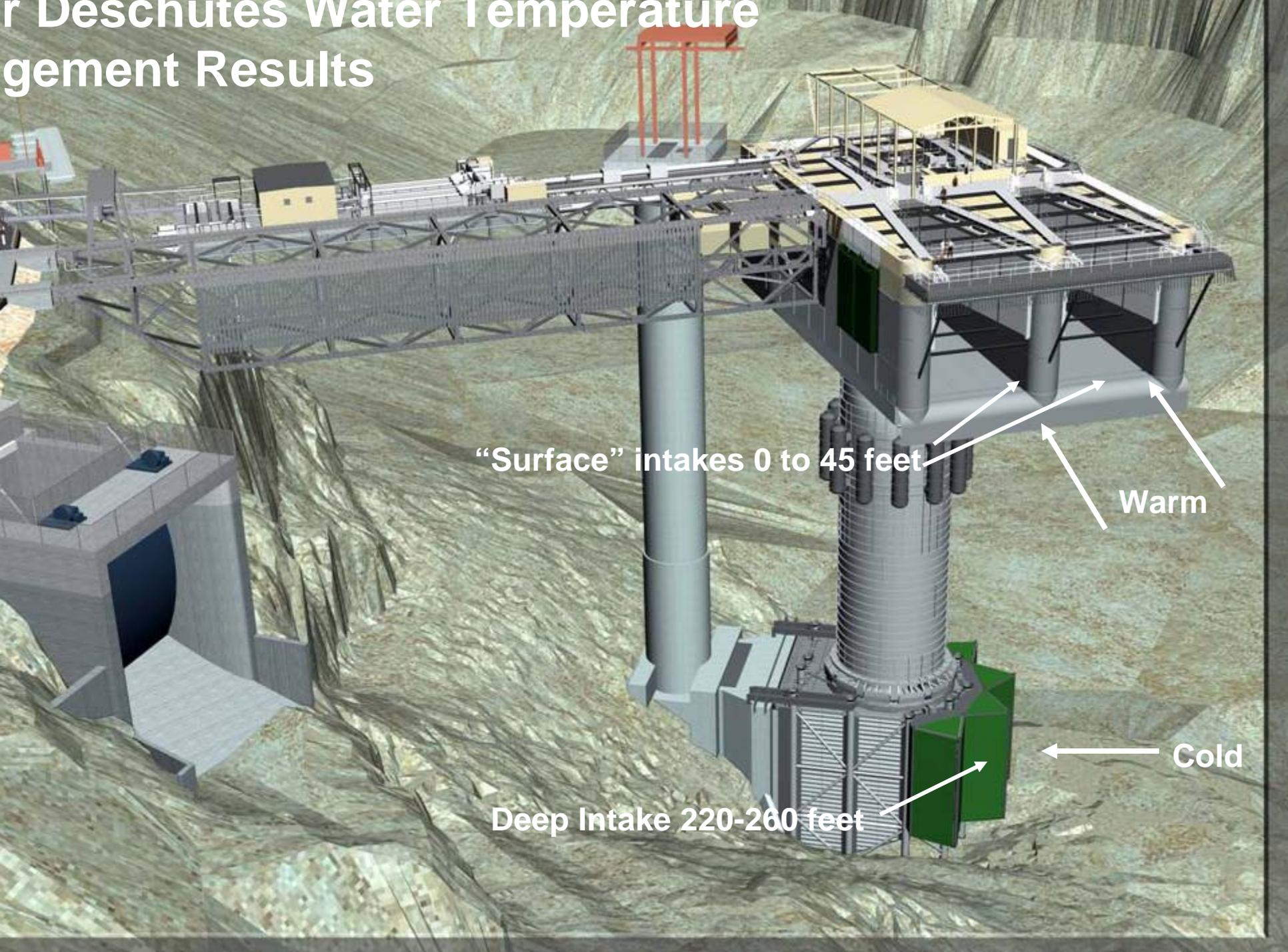
## – Maintenance

- Get involved early!
  - Specifications and submittal review
- Parts and O&M manuals
  - Know what you want and have a system for receiving

## – Operations

- Get involved early!
  - Training and Operating Procedures

# Deschutes Water Temperature Measurement Results



“Surface” intakes 0 to 45 feet

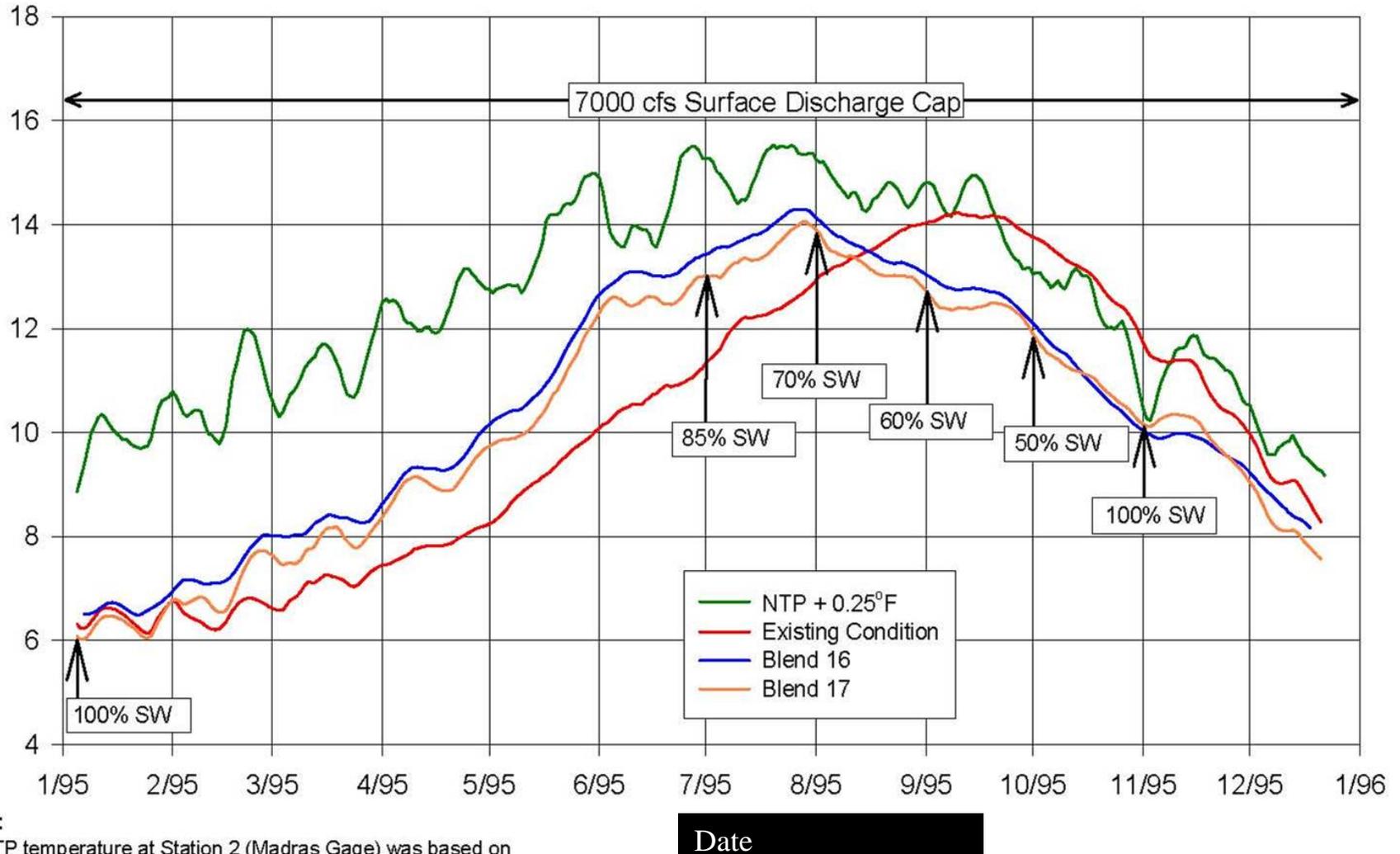
Warm

Deep Intake 220-260 feet

Cold

# Deschutes River Temperatures at Madras Gage

Temperature (Deg. C)



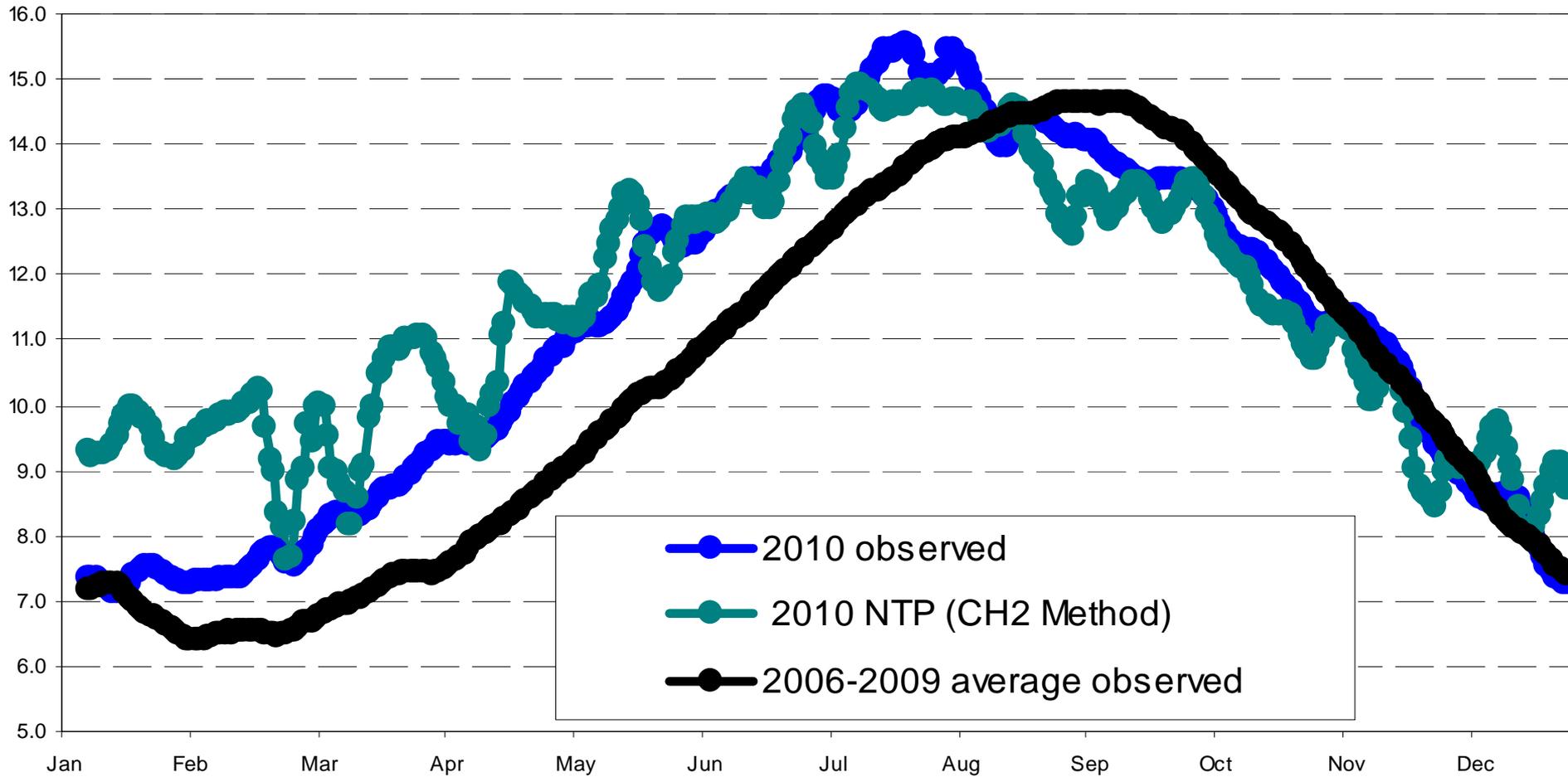
## Note:

- (1) NTP temperature at Station 2 (Madras Gage) was based on  

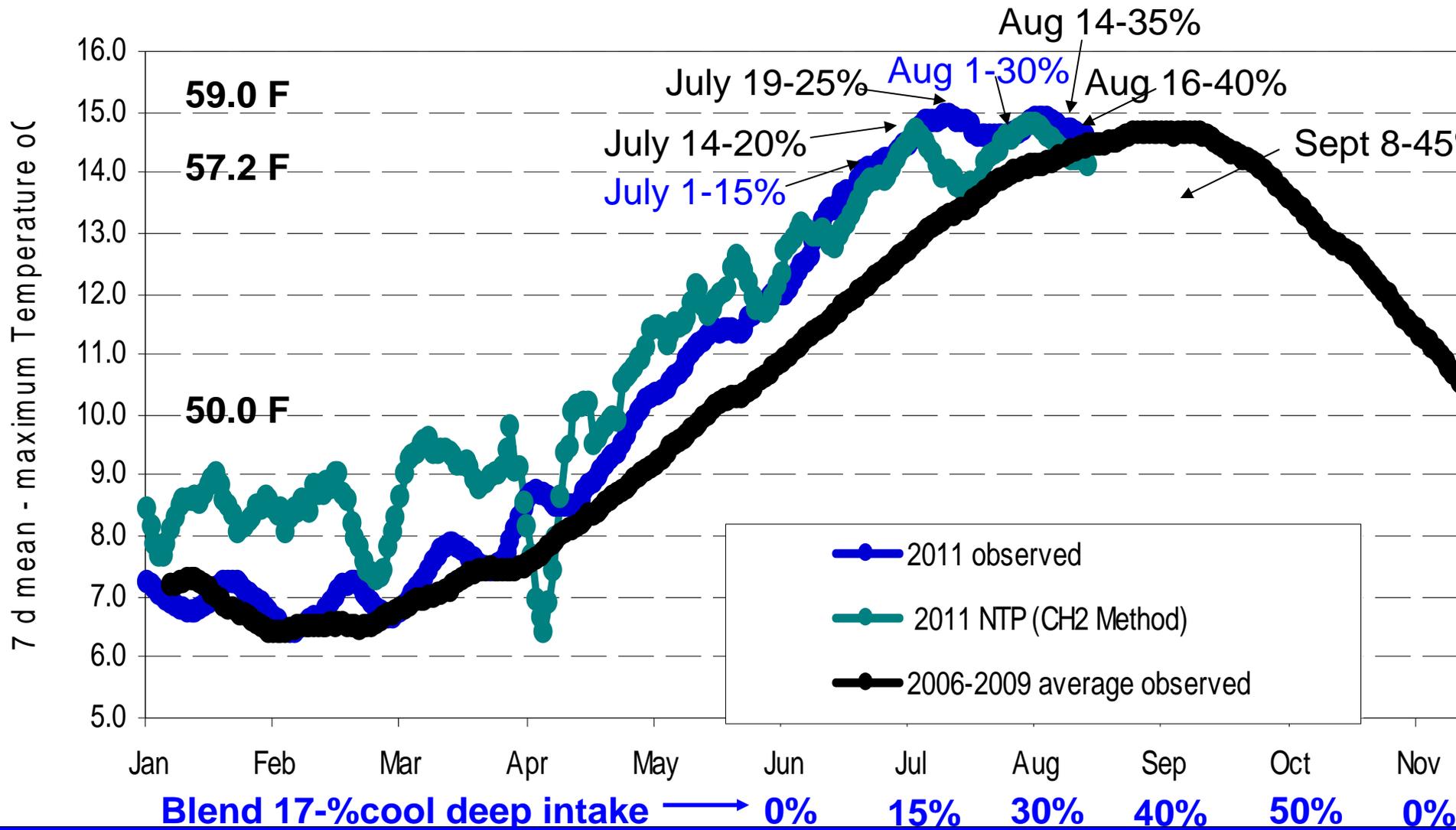
$$T_{\text{station2}} = 2.8 + 0.79 \cdot T_{\text{LBCInflow}} + 0.071 \cdot T_{\text{Air}}$$
 (Huntington, Hardin, and Raymond (April 1999))
- (2) Rereg regression between Station 3 (Lake Simtustus tailrace) and Station 2 (Madras Gage) for Blend 17 is  

$$T_{\text{station2}} = 1.0339 \cdot T_{\text{station3}} - 0.235$$
- (3) 7DADM - 7-day average of daily maximum

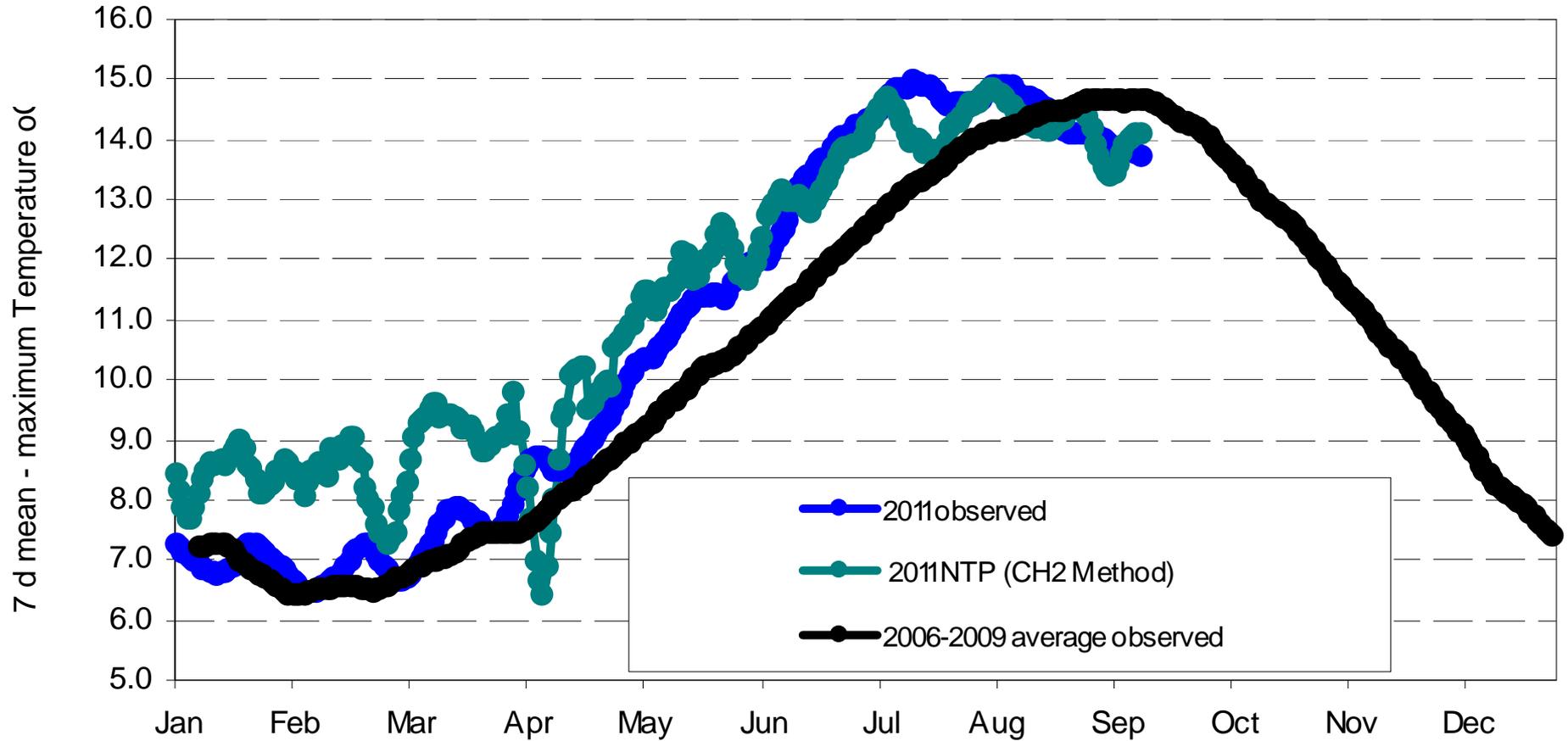
# Deschutes River at RM 100.1 (Madras Gauge, USGS No. 14092500)



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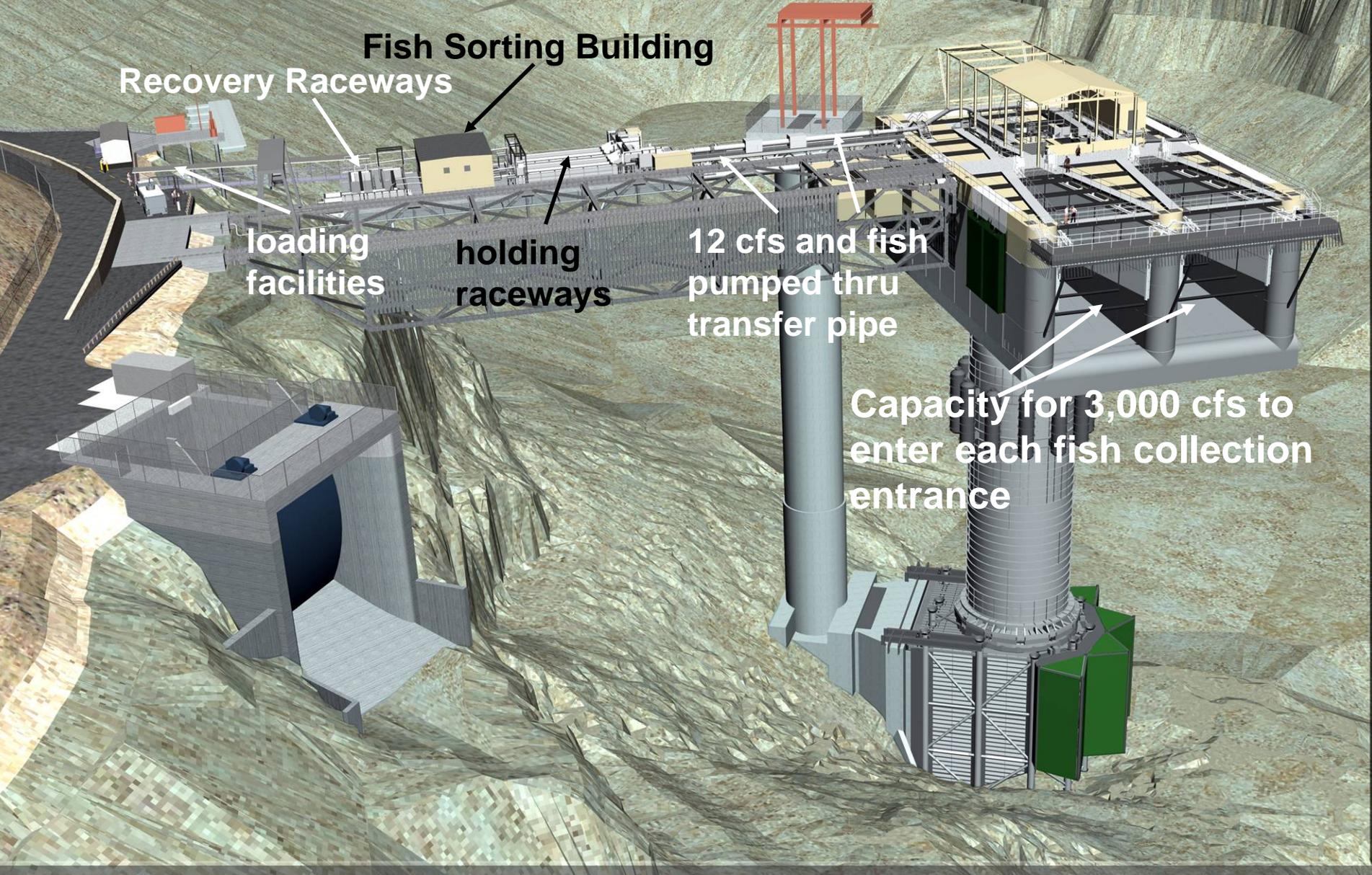


# Initial Downstream Fish Passage Results



Yearling *O. nerka*  
“sockeye” smolts

# Round Butte SWW Fish Capture and Fish Transfer Facilities



Fish Sorting Building

Recovery Raceways

loading facilities

holding raceways

12 cfs and fish pumped thru transfer pipe

Capacity for 3,000 cfs to enter each fish collection entrance

**Table 1a. Catch of anadromous and adfluvial salmonid species at the Round Butte Fish Transfer Facility through July 31, 2010.**

<b>SPECIES BY GROUP</b>	<b>2010 TOTAL THROUGH JULY</b>	<b>2011 TOTAL THROUGH JUNE 30</b>	<b>2011 PASSED DN STRM JUNE 30</b>
<b>Native Anadromous Species</b>			
<b>Spring Chinook Smolts</b>	<b>41,875</b>	<b>28,450</b>	<b>28,017</b>
<b>Yearling <i>O. nerka</i> (sockeye)</b>	<b>49,712</b>	<b>225,567</b>	<b>220,459</b>
<b>Steelhead Smolts</b>	<b>7,730</b>	<b>10,547</b>	<b>10,394</b>
<b>Native Adfluvial Species</b>			
<b>Bull Trout</b>	<b>348</b>	<b>748</b>	<b>230</b>
<b>Age 2 &amp; older <i>O. nerka</i> (kokanee)</b>	<b>17,874</b>	<b>175,019</b>	<b>0</b>