

# RECLAMATION

*Managing Water in the West*

**Technical Management Team**

**2014 Year End Review**

**Flow Augmentation**

**December 3, 2014**



U.S. Department of the Interior  
Bureau of Reclamation

# Today's Objectives

- ❖ Provide background on flow augmentation timing considerations related to the 2008 BiOp
- ❖ Focus on how we implemented
  - Upper Snake above Milner
  - Boise

# Basic Tenets

- Flow augmentation must be water that would otherwise not be there.
- Must occur between Apr 3 – Aug 31.
- Must be able to clearly report on the volumes and timing.

# Pre 2008: Upper Snake

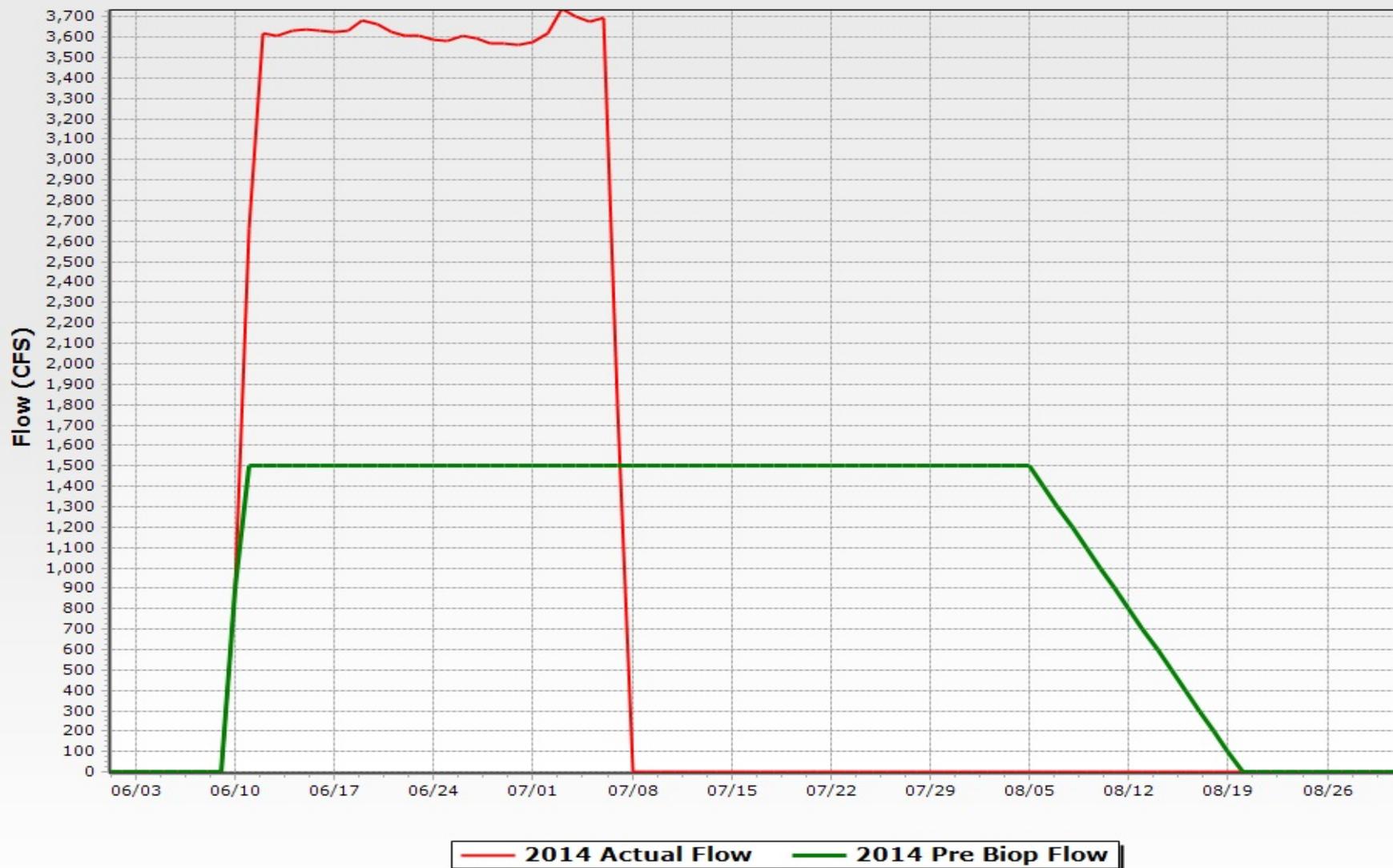
- Down-ramping rate of 100 cfs/day very restrictive
- Volume of flow aug and ramping rate forced releases well into August most years

# 2008 BiOp: Upper Snake

Goal: Get the water out earlier, or at least prior to August

Solution: getting rid of ramping rate basically solved the problem

## Snake River at Milner, Idaho 2014 Flow Augmentation



# Pre 2008: Boise

- Usually could not start until mid to late June
- Flows limited to +600 cfs because of safety concerns
- Typically completed before the end of July

# 2008 BiOp: Boise

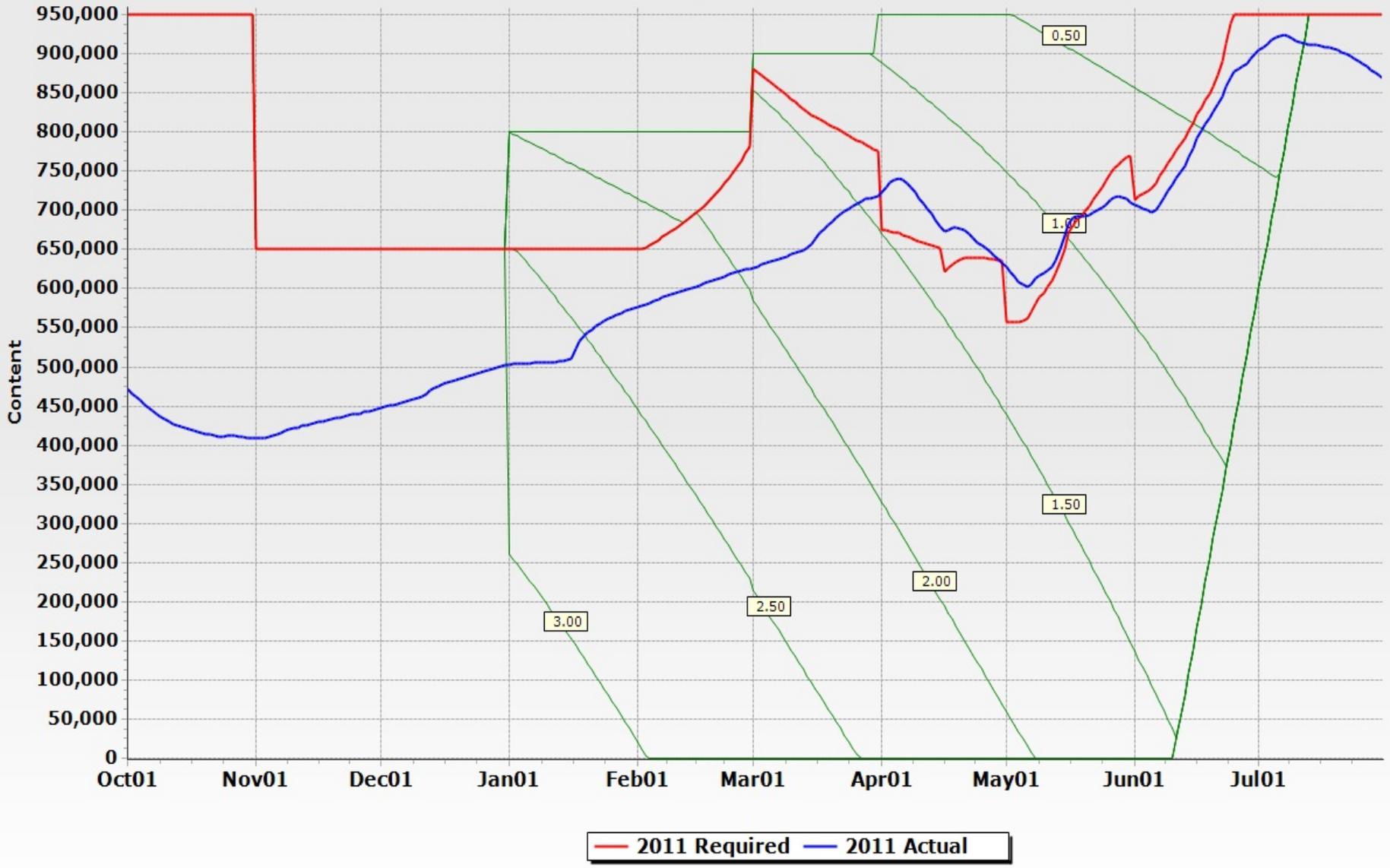
If the system is assured to physically refill:

- Deliberately not top off the system
- Any fill into this space must be evacuated or otherwise delivered as flow aug

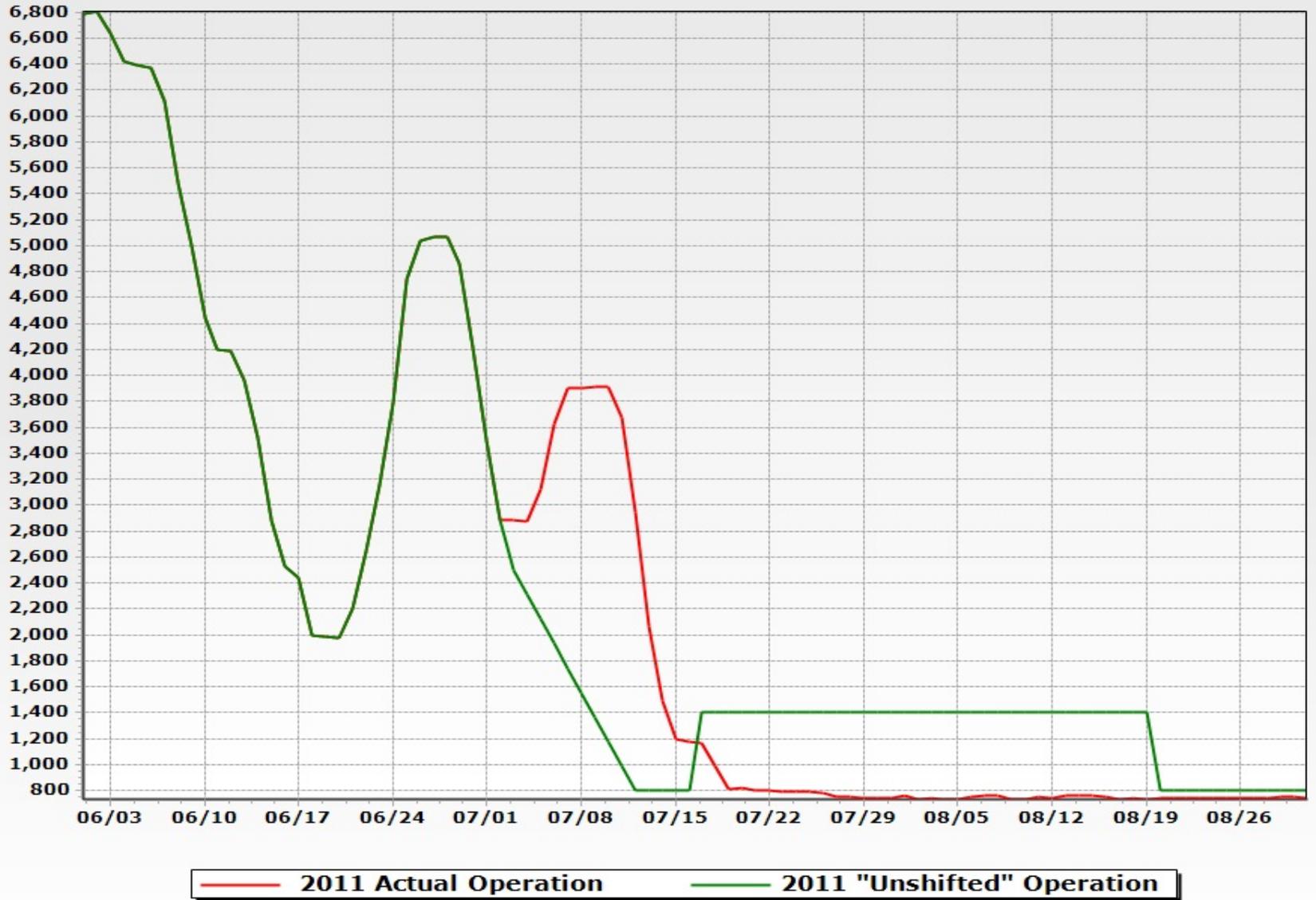
# 2008 BiOp: Boise

- Not a “blank check” to call flood control water as augmentation water
- Must show beyond doubt that system would have otherwise physically refilled
- May not work in every flood control year

# Boise System

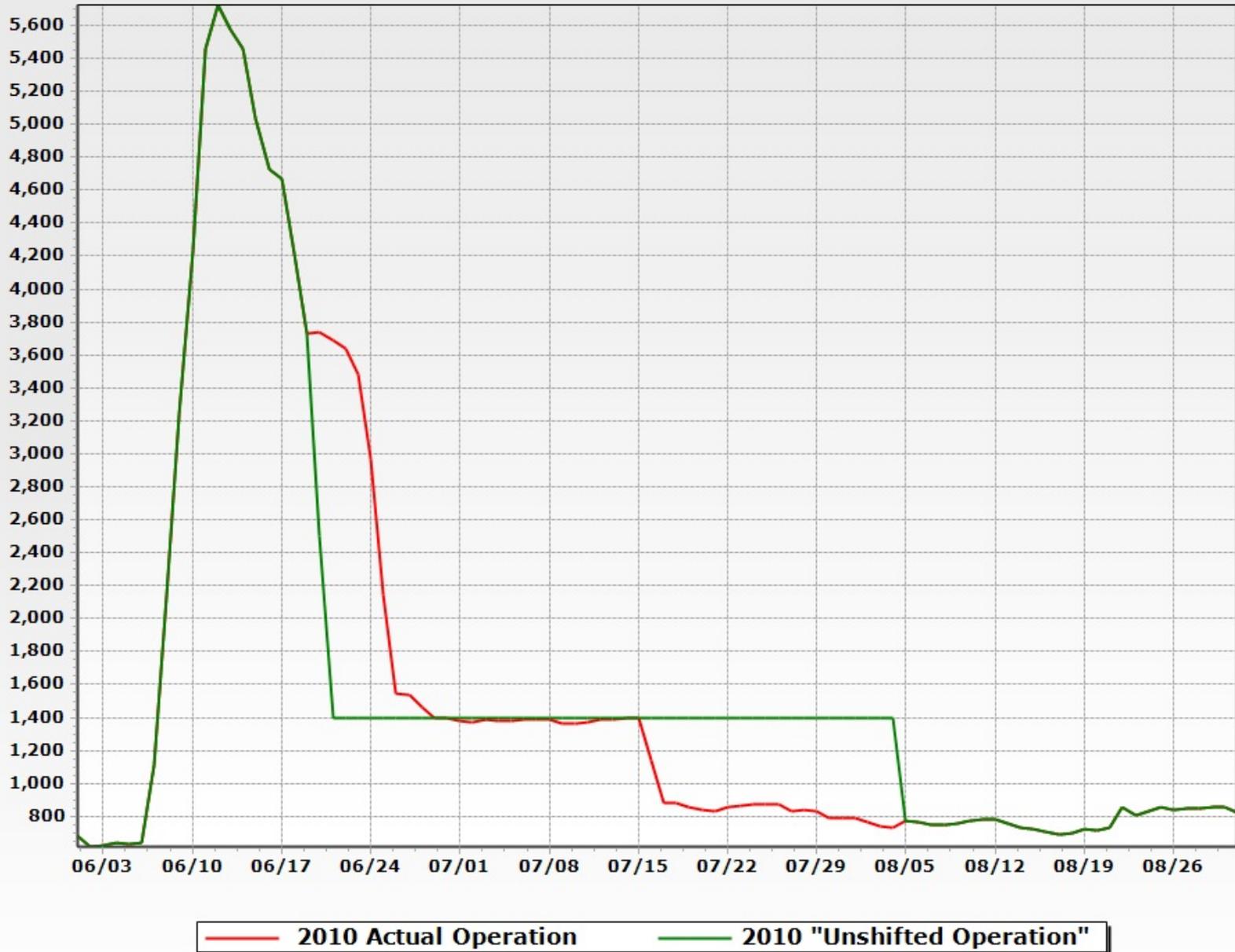


## Boise 2011

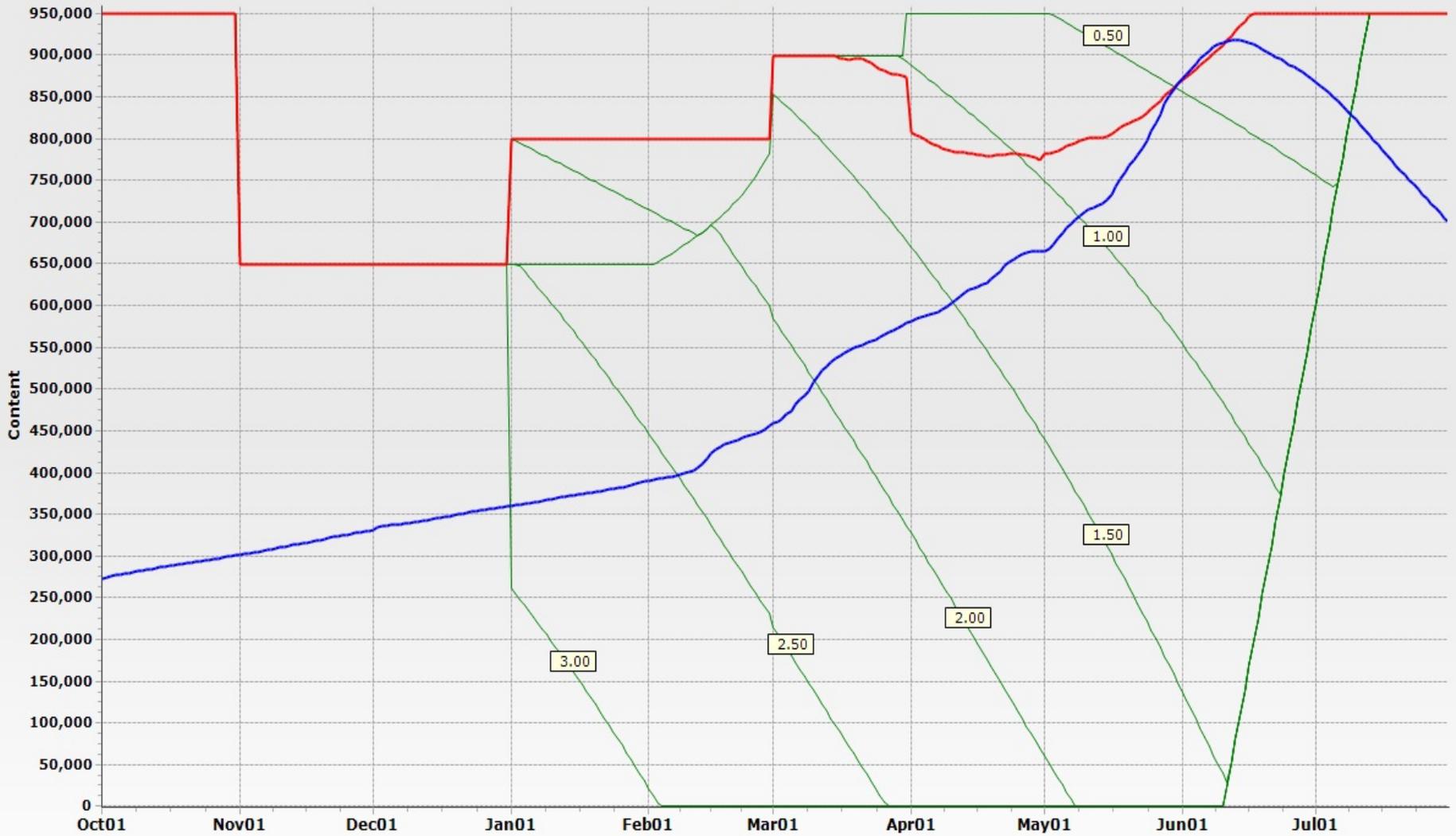


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# Boise 2010



# Boise System



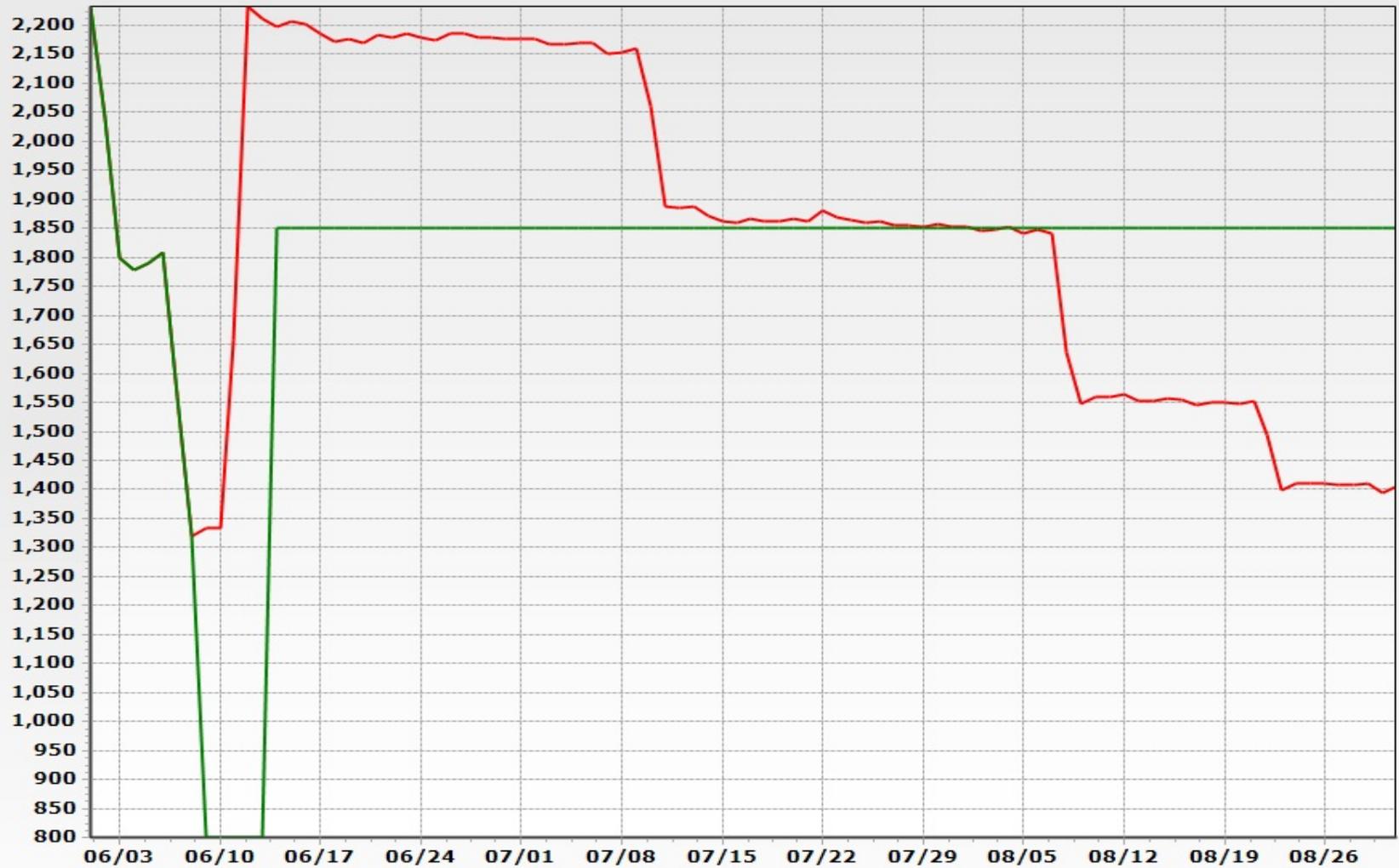
— 2014 Required — 2014 Actual

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Questions?

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## North Fork Payette River at Cascade, Idaho



— 2014 Actual Operation      — 2014 "Unshifted" Operation

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