



— BUREAU OF —  
RECLAMATION

# Colorado-Big Thompson Project 2020 Operations

Victor Lee, PE

Eastern Colorado Area Office

Summit County State of River, May 14, 2020

# Outline

- Bureau of Reclamation-Eastern Colorado Area Office
- Colorado-Big Thompson Project
- Green Mountain Reservoir 2020 Run-off and Fill Operations
- Colorado River Collection System 2020 Runoff Operations



# Bureau of Reclamation- Eastern Colorado Area Office

- Reclamation:
  - Federal Agency-Largest wholesale supplier of water in the Western United States and major supplier of hydro-electric power
  - Serves as trustee in the operation and management of multiple water projects owned by the Citizens of the United States
- Eastern Colorado Area Office:
  - Main Office Located in Loveland Colorado at the Flatiron Power Plant
  - Trustee for the Colorado-Big Thompson and Frying Pan-Arkansas Projects



# Colorado-Big Thompson Project

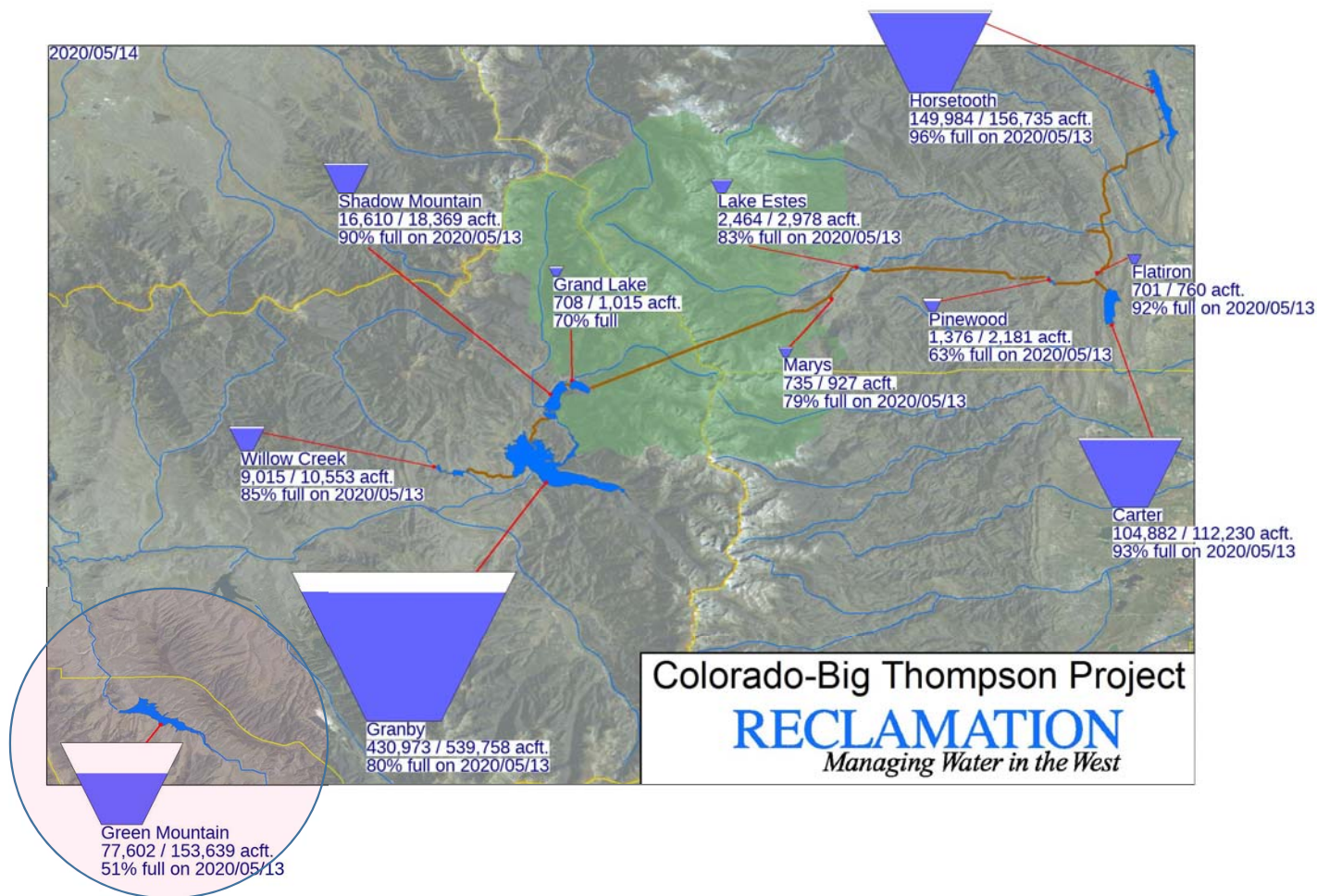


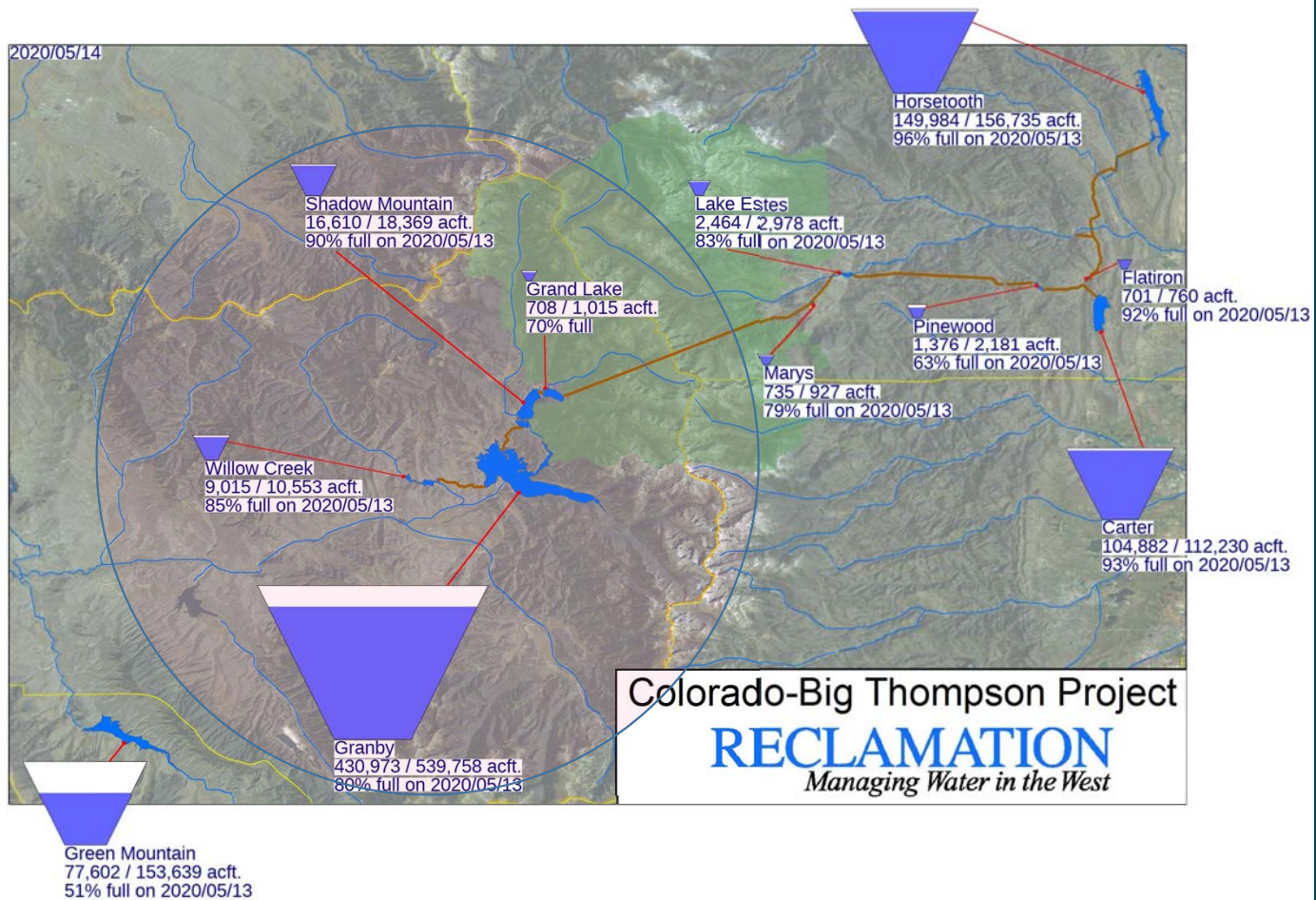
*Lake Granby and  
Rocky Mtn. National  
Park*

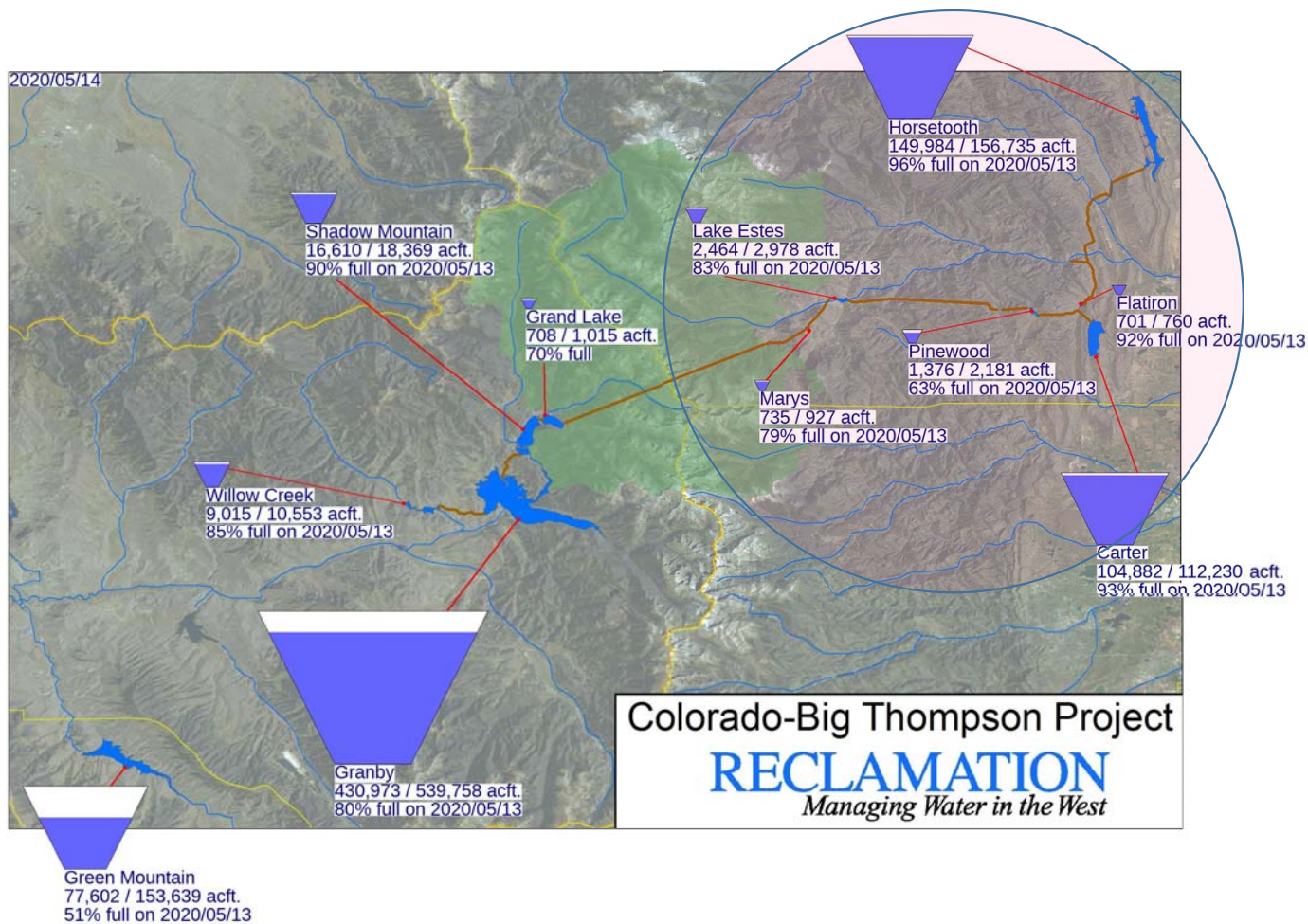
- Colorado's largest trans basin diversion project
  - 230,000 acre-feet diverted annually to the northern South Platte River Basin for agriculture, municipal and industrial use
  - Project Beneficiaries from Nebraska Border to Utah Border
- Green Mountain Reservoir
  - Replacement water – Collection System and Upper Colorado River Basin consumptive use
  - Power Generation
  - Other Upper Colorado River basin beneficial use
- Colorado River Collection System
- East Slope Power and Distribution System
- South Platte Basin Delivery System



2020/05/14

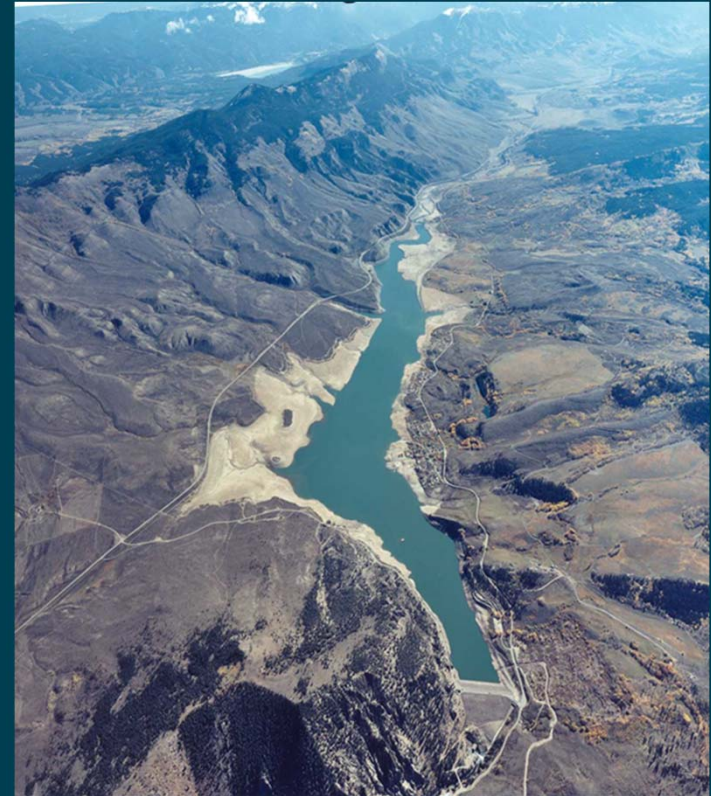






# Green Mountain Reservoir

- The “Little Engine that Could” for the Upper Colorado River Basin
  - Annually Stores Runoff for delivery during low flow periods
  - Provides “Replacement Water” for project collection system and beneficiaries
  - Provides water for Upper Colorado River Basin irrigated agriculture, municipal, and industrial use
  - Augments river flow for endangered fish recovery
  - Generates electrical power for almost 6,000 homes
- Reservoir designed to refill most years



*Green Mountain Reservoir*



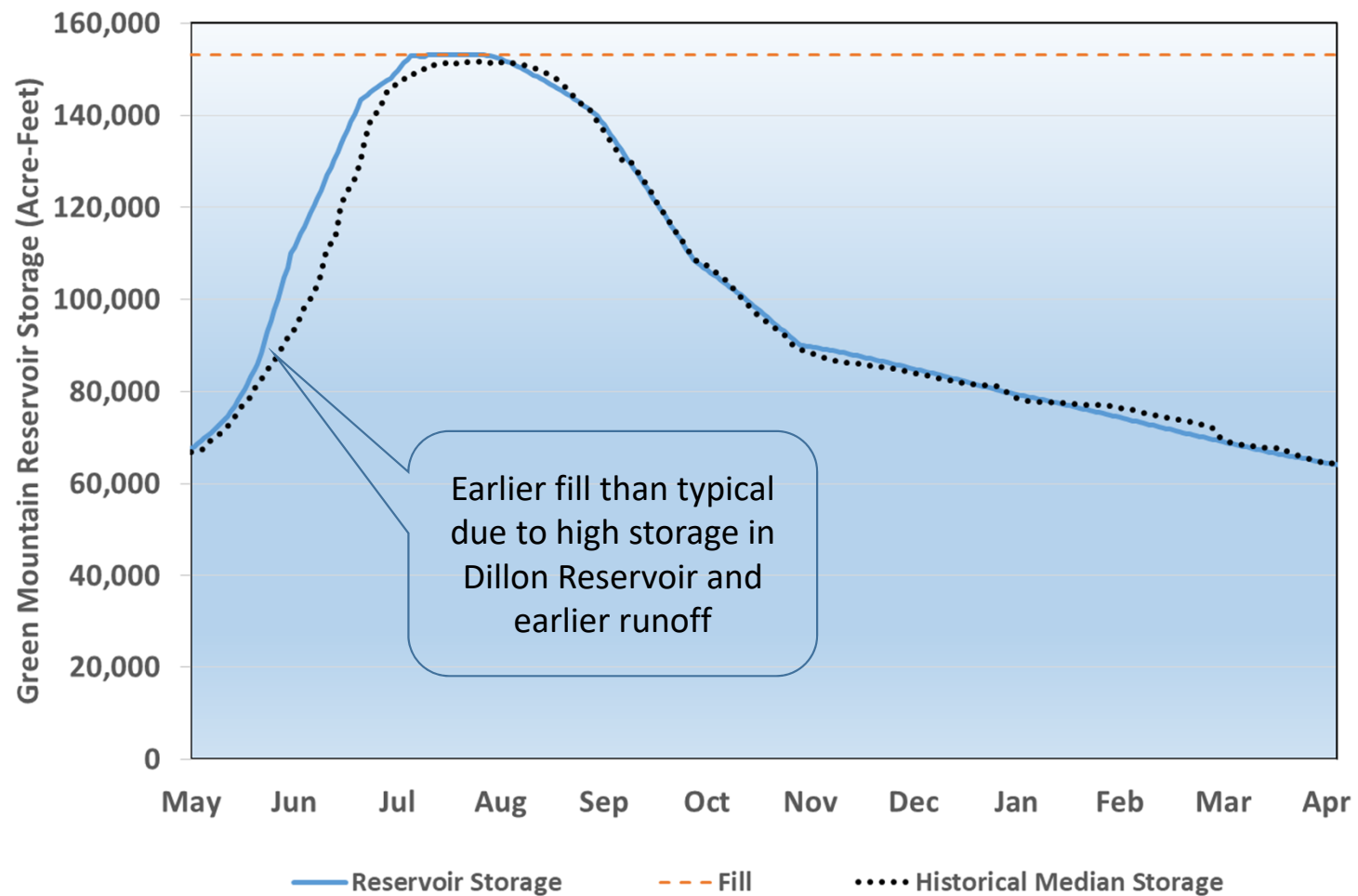
# Green Mountain Reservoir

## 2020 Run-off and Fill Operations

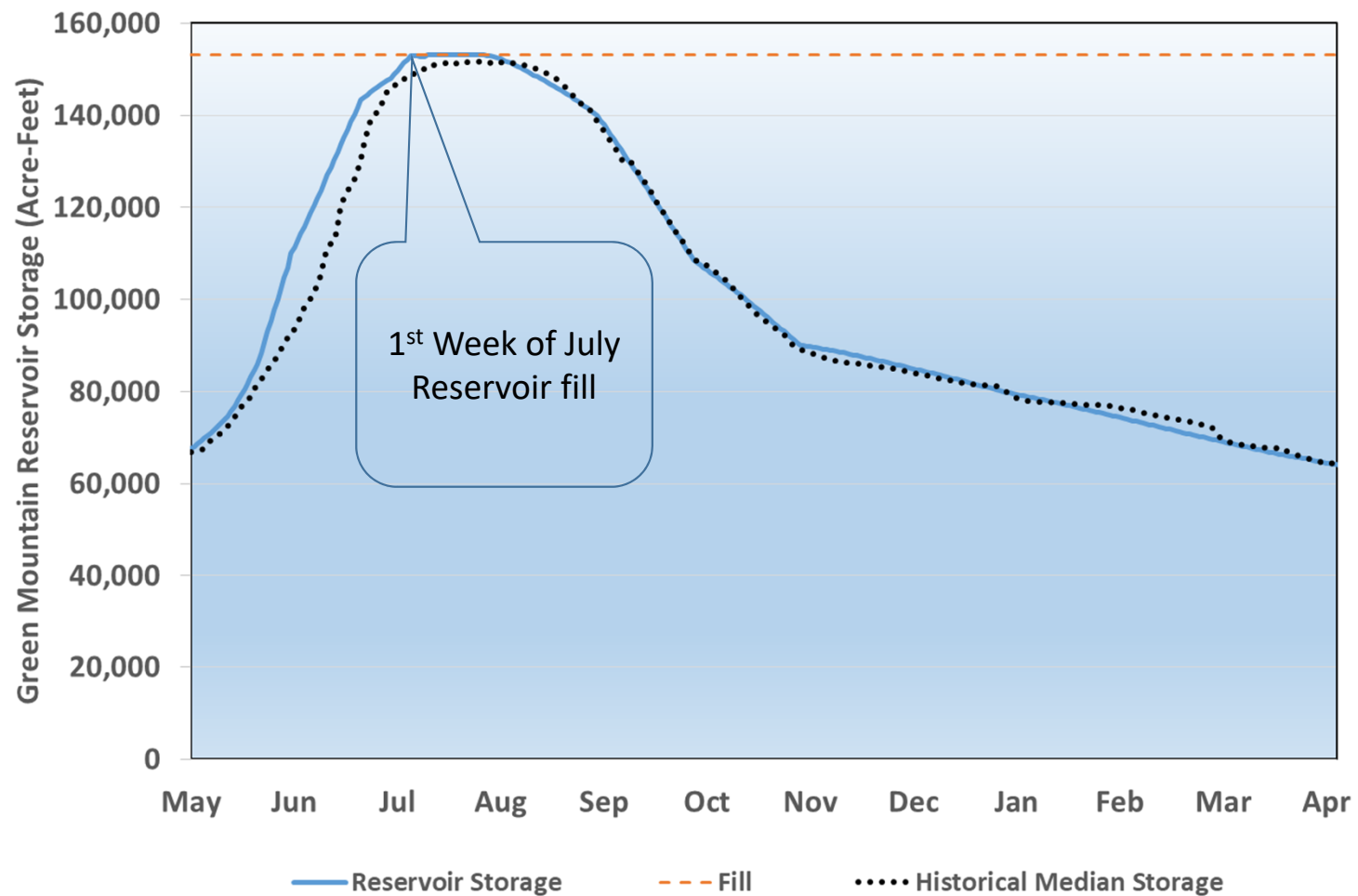
- May 1, May-July Most Probable snow melt forecast: 255 KAF (101% of historical median)
- Coordinated Reservoir Operations (CROs) possible in late May-early June
- Reservoir obtains physical fill 7 July
  - Refills all reservoir allocations
  - Maintains power generation through-out fill season
  - No Spillway release – Maximum release approximately 1,400 for CROs
  - Denver and Colorado Springs hold no water obligated to Green Mtn. Reservoir
- 66 KAF HUP allocation refilled
  - Typically 40 – 65 KAF for later summer and early fall release



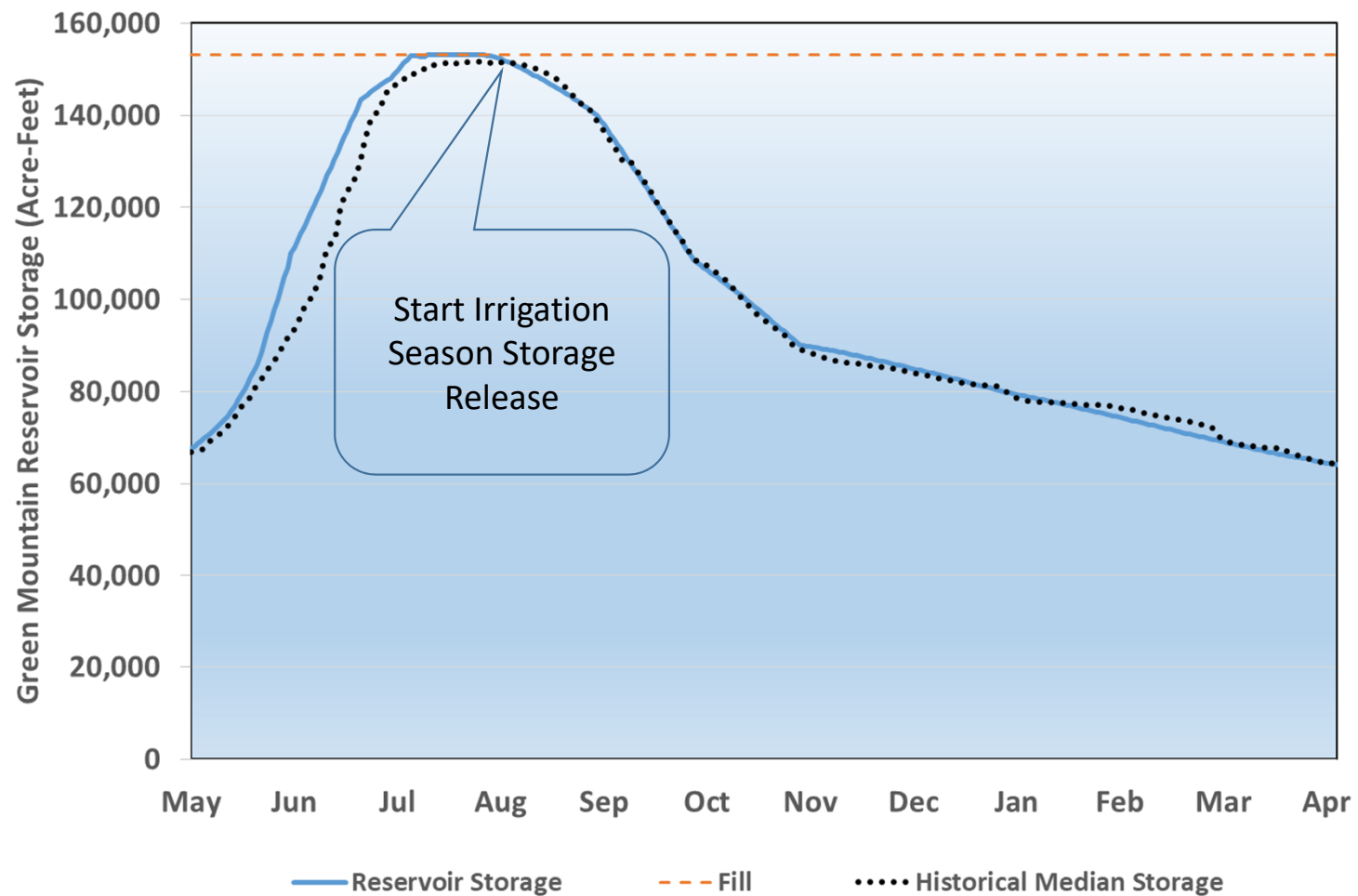
## Green Mountain Reservoir Planned Fill Operation



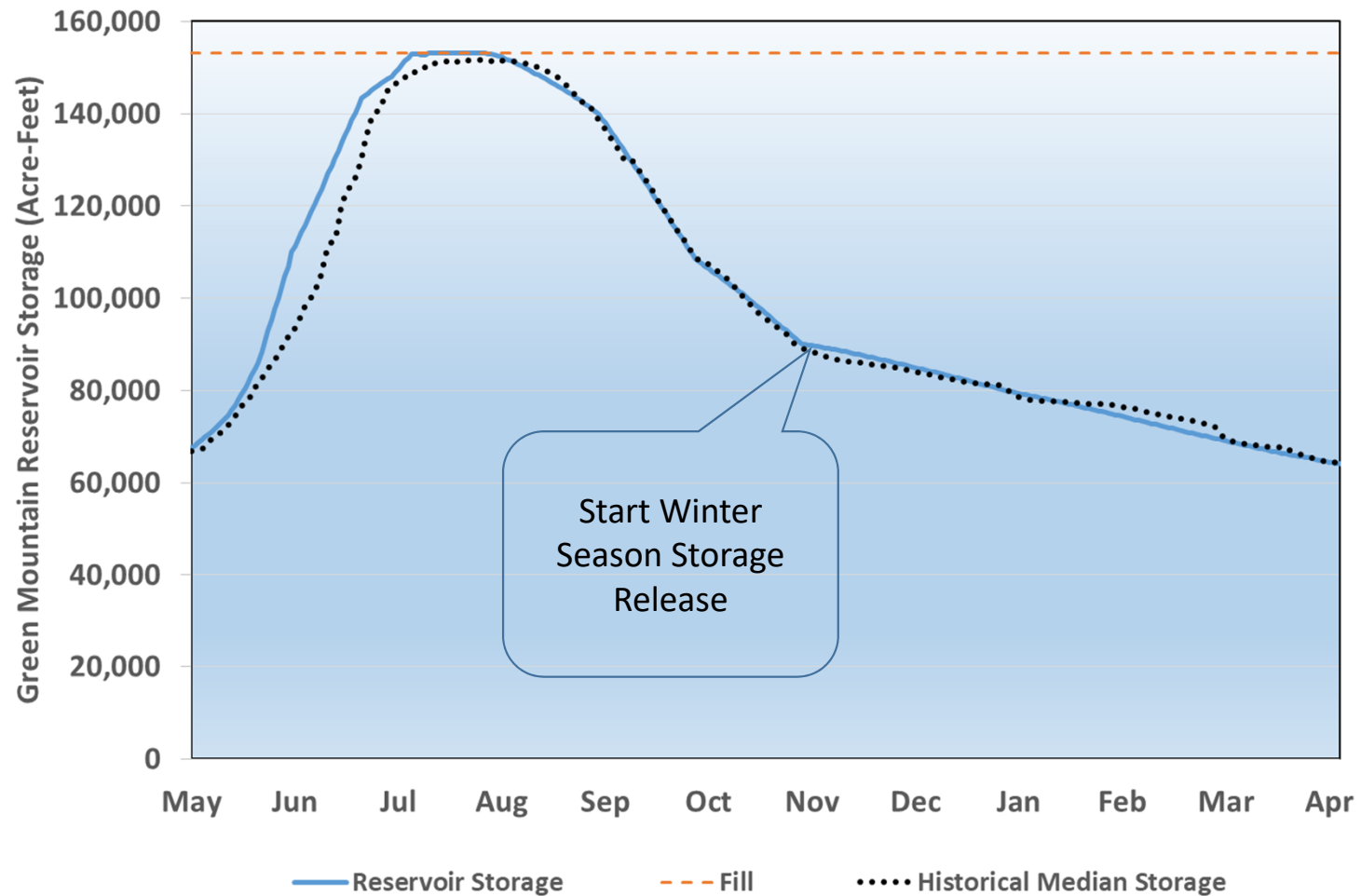
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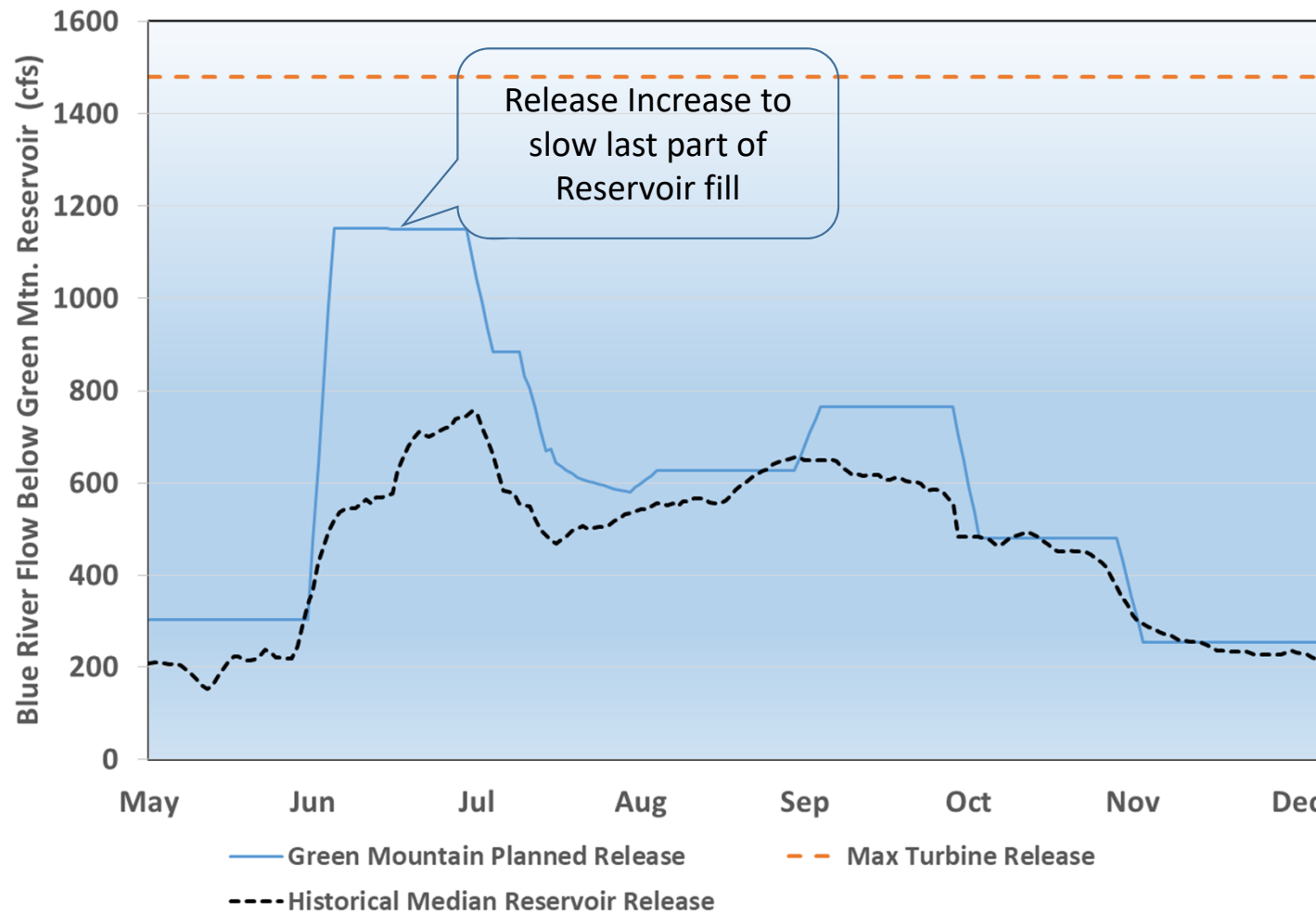
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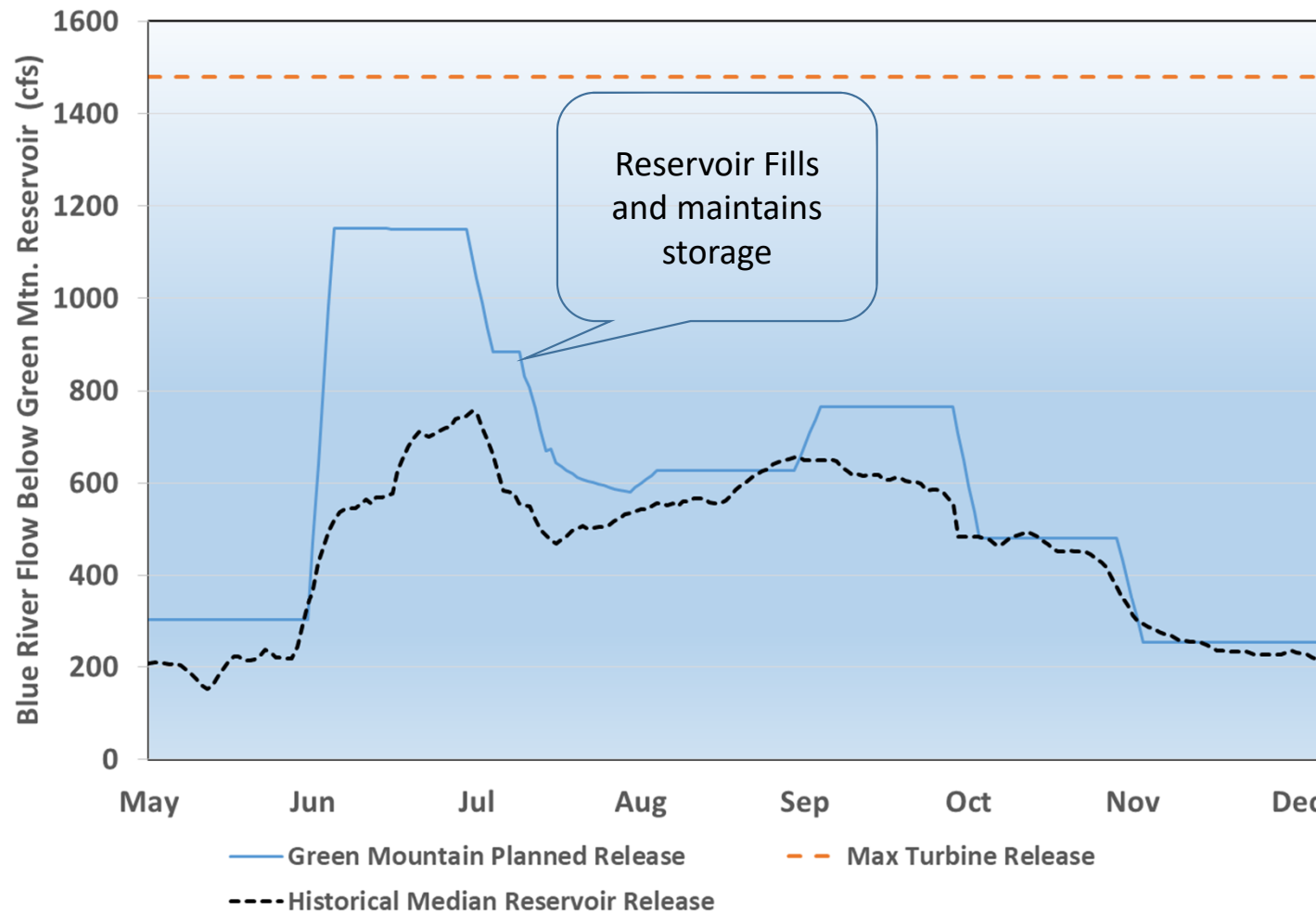
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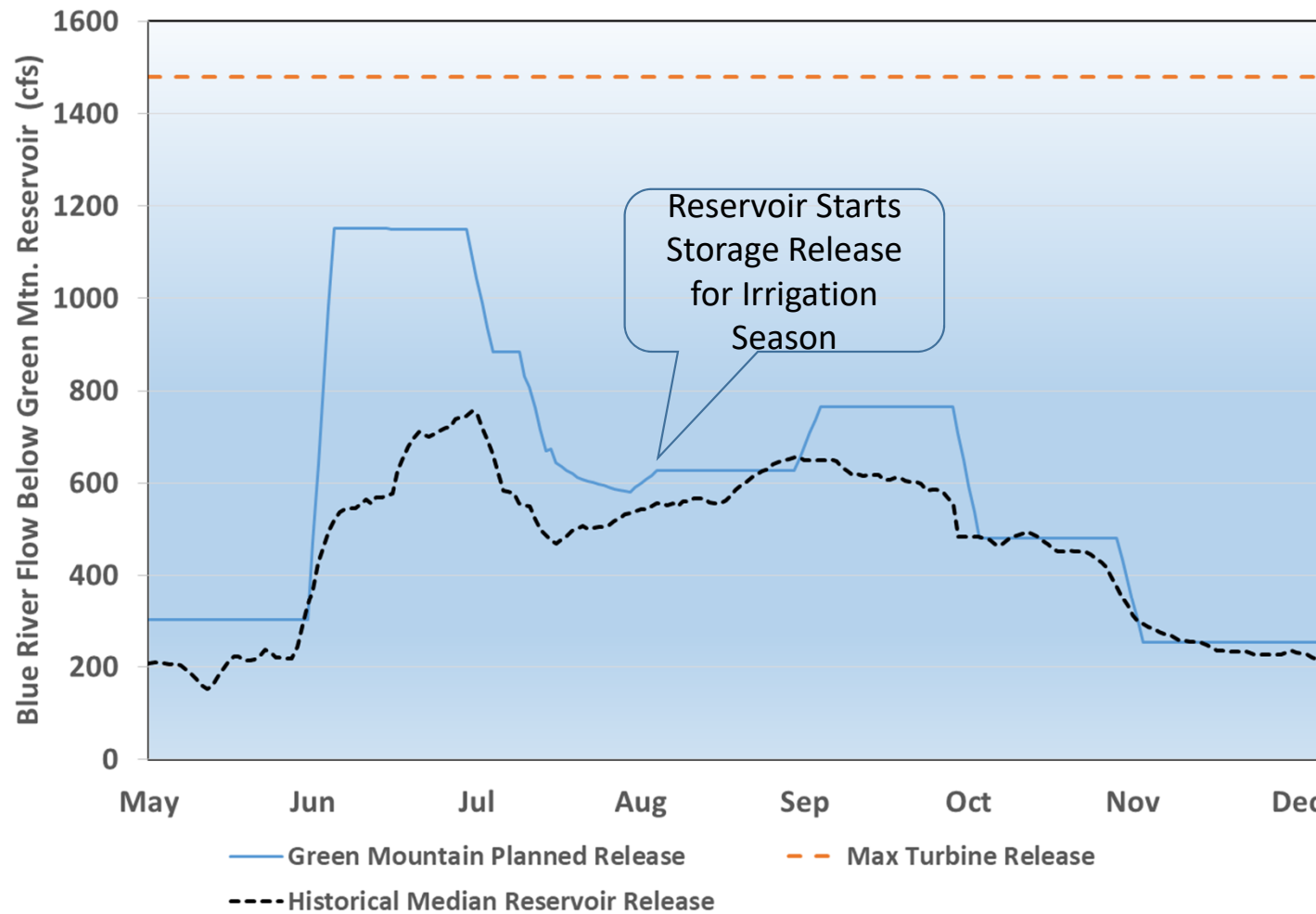
## Green Mountain Release to the Blue River



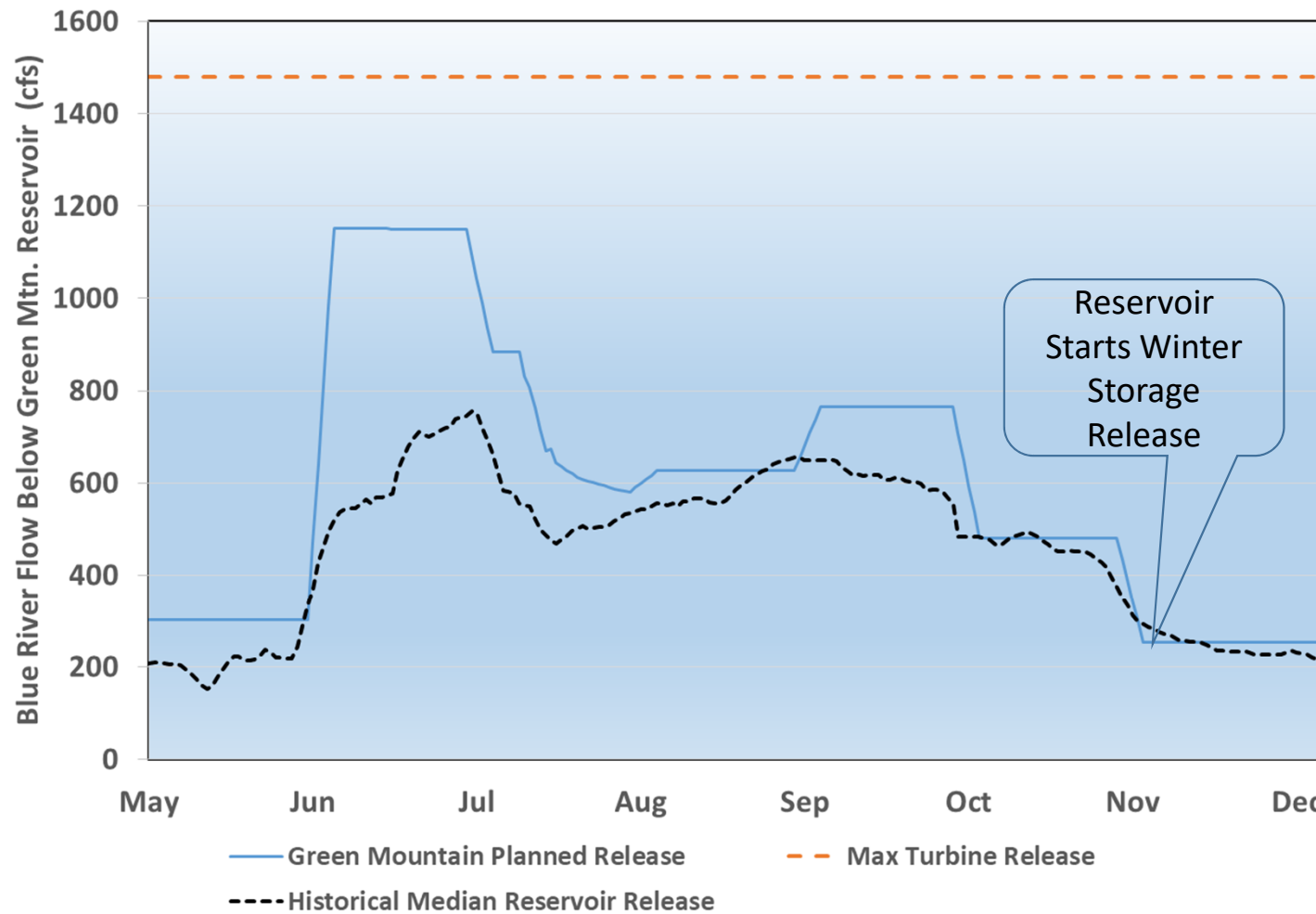
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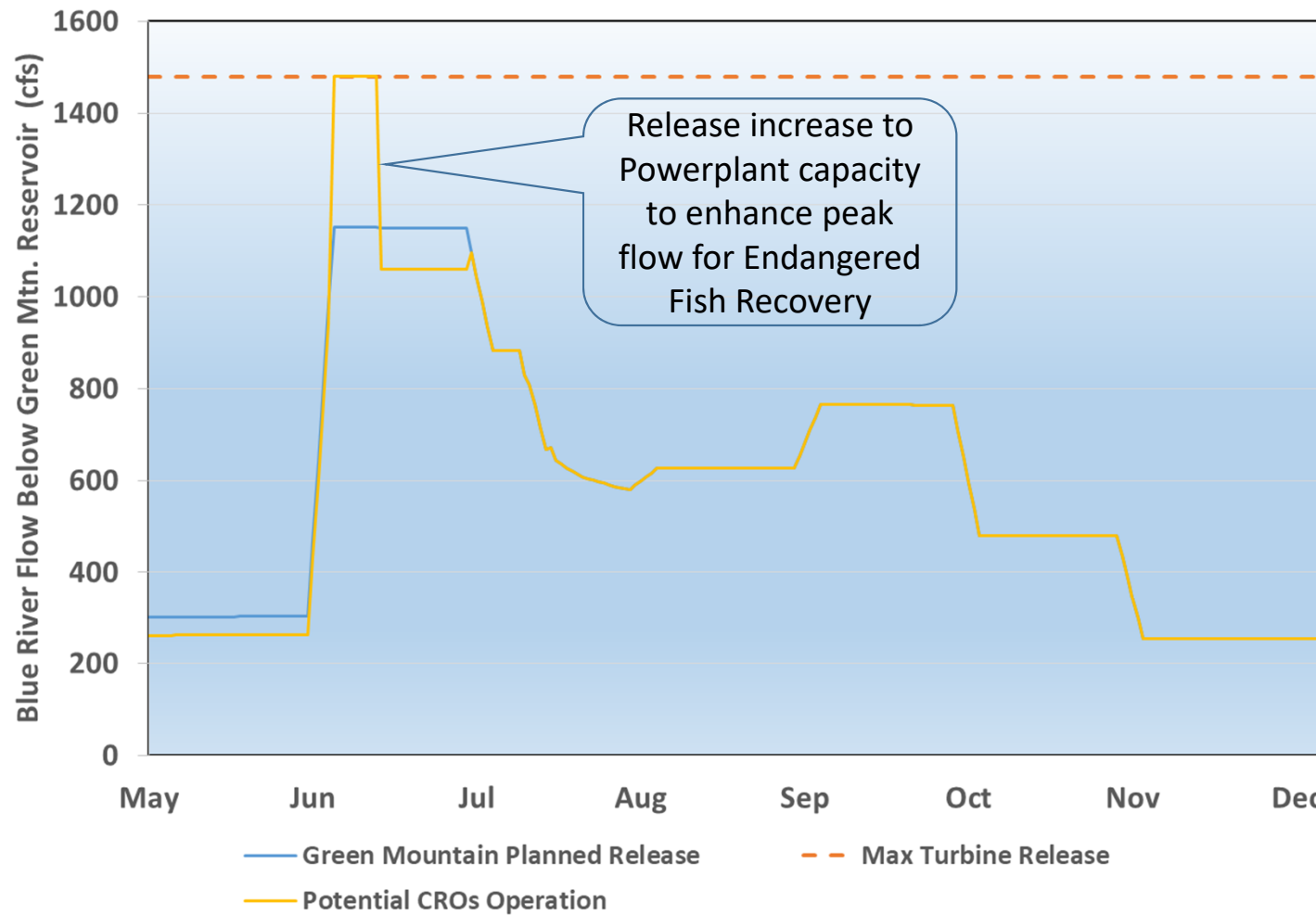
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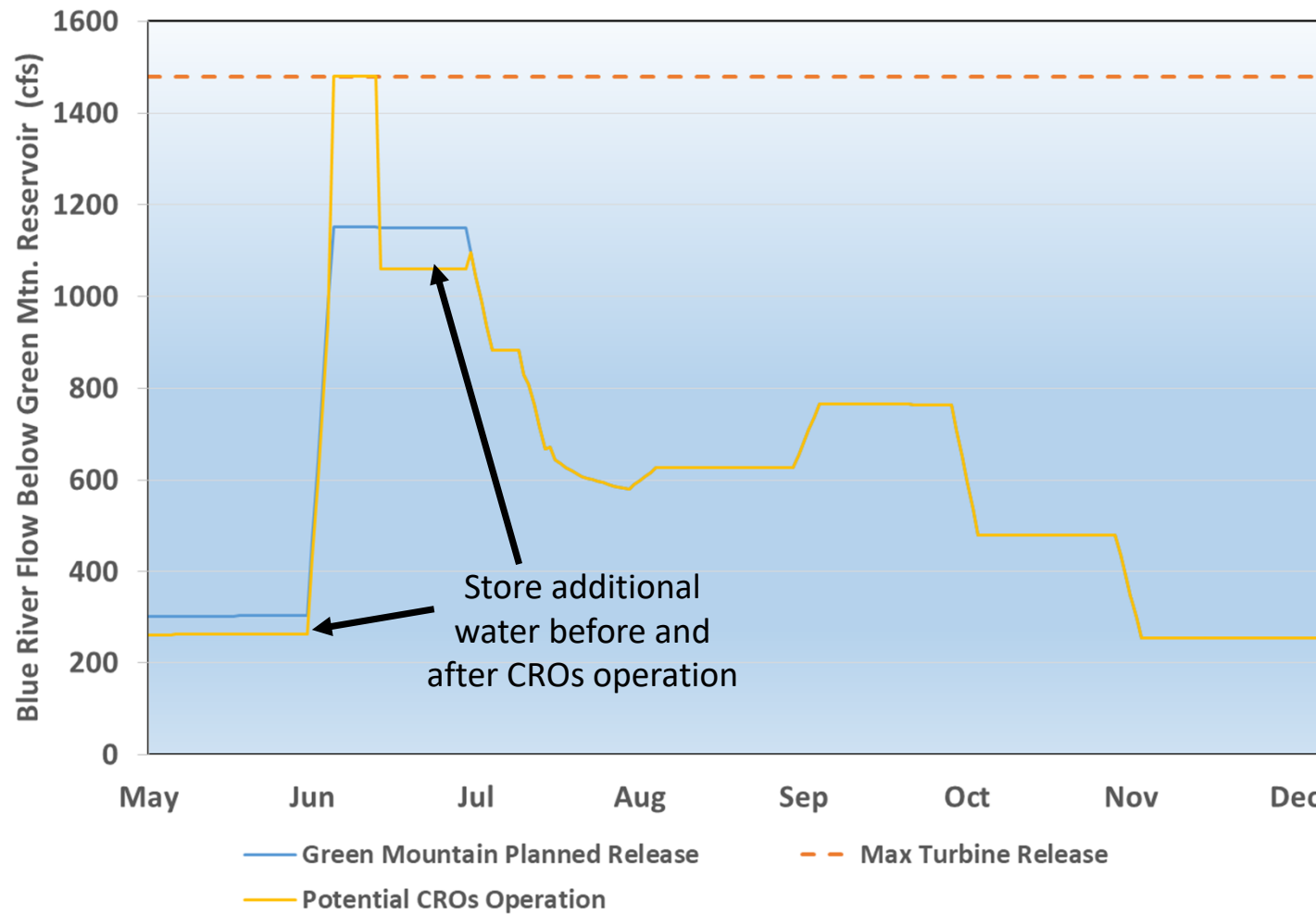
## Green Mountain Release to the Blue River



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## Green Mountain Release to the Blue River



# Colorado River Collection System 2020 Run-off and Fill Operations

- **May 1 May-July Most Probable snow melt forecast:**
  - Willow Creek, 45.9 KAF (106% of average)
  - Three Lakes, 207 KAF (111% of historical median)
- **Granby Reservoir obtains physical fill late June**
  - 20 – 30 KAF bypass of water, will likely include curtailment of Willow Creek diversion
  - Higher than typical east-slope storage limits Colorado River diversion
- **East slope maintenance will constrain diversion operations**
  - Canal outage for rehabilitation from July to November
  - Horsetooth Reservoir maintenance around November
- **Grand Lake Clarity Adaptive Management beginning July**



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