

# Colorado-Big Thompson Project 2022 Operations

Victor Lee, PE Eastern Colorado Area Office HUP Wrap-up Meeting 09 March 2022

#### Outline

- C-BT Project Current Status
- Colorado River Collection
  System Runoff Operations
- Green Mountain Reservoir Run-off and Fill Operations



#### **C-BT Overall Conditions**

- •103% of March 1 average Project Reservoir Storage
- Storage down about 30 KAF since last year
- Green Mt. Reservoir is 86% average 9 KAF lower than last year



#### Colorado River Collection System 2022 Run-off and Fill Operations

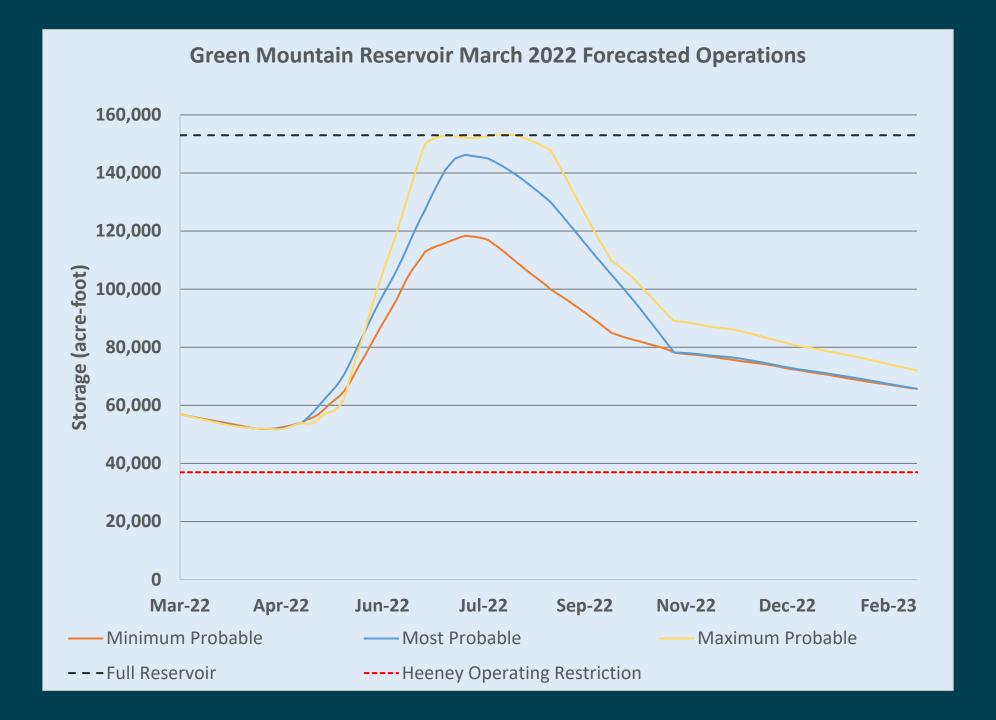
- March 1 April-July Most Probable snow melt forecast:
  - Willow Creek, 49 KAF (97% of average)
  - Three Lakes, 199 KAF (95% of average)
- Granby Reservoir does not fill or bypass excess water
  - Anticipate no reduction in Secretary of Interior required release
  - 10,825 water from Redtop Ditch available for Endangered Fish Recovery Program
  - Storage available for Northern Water Windy Gap diversion
- Extensive burn in Willow Creek drainage
  - Fire scar concerns with operations
- Grand Lake Clarity Adaptive Management beginning July
  - Concern with fire impacts on water clarity



#### Green Mountain Reservoir 2022 Run-off and Fill Operations

- March 1 April-July Most Probable snow melt forecast: 240 KAF (87% of average) (March 2021 67% of average)
- Reservoir does not obtain physical fill in most probable case
  - Reservoir maximum storage of 145 KAF near July 1
  - Forego power generation through-out fill season
  - 79 KAF available for Denver and Colorado Springs to divert against the 1935 Direct Flow Power Generation Water Right during fill
  - Cities substitution obligation estimated at 7 KAF
- All allocations refilled with GMR storage and Substitution
  - 66 KAF HUP allocation refilled
  - 20 KAF Contract Water refilled
- Coordinated Reservoir Operations (CROS) not likely







## Green Mountain Reservoir Operating Restrictions

- Heeney Slide Operating Restriction
  - 0.5 foot per day maximum draw down below 7865 ft (37 KAF)
  - Not anticipated for this year's operations
  - Minimum expected water surface elevation of 7882 ft April 2022
- Green Mountain Penstock Recoating Project
  - Both turbine penstocks and bypass valves will be rehabilitated
  - Project start in November 2022 and completed Summer 2022
  - One turbine available always to meet delivery obligations
  - Not anticipated to impact delivery obligations
  - Will likely affect Direct Flow maximum capacity during 2023 Fill year



## Green Mountain Reservoir April 2021 Irrigation Diversion Startup

- Potential for HUP April release to increase stream flow
  - Approximately 12 KAF of HUP carry over
  - May be used for irrigation direct delivery or surplus for Recovery Program
- April HUP release not expected to impact GMR allocation fill
  - Would likely increase substitution volume
  - In minimum case 133 KAF forecasted for fill with approximately 40 KAF allocated for power



