

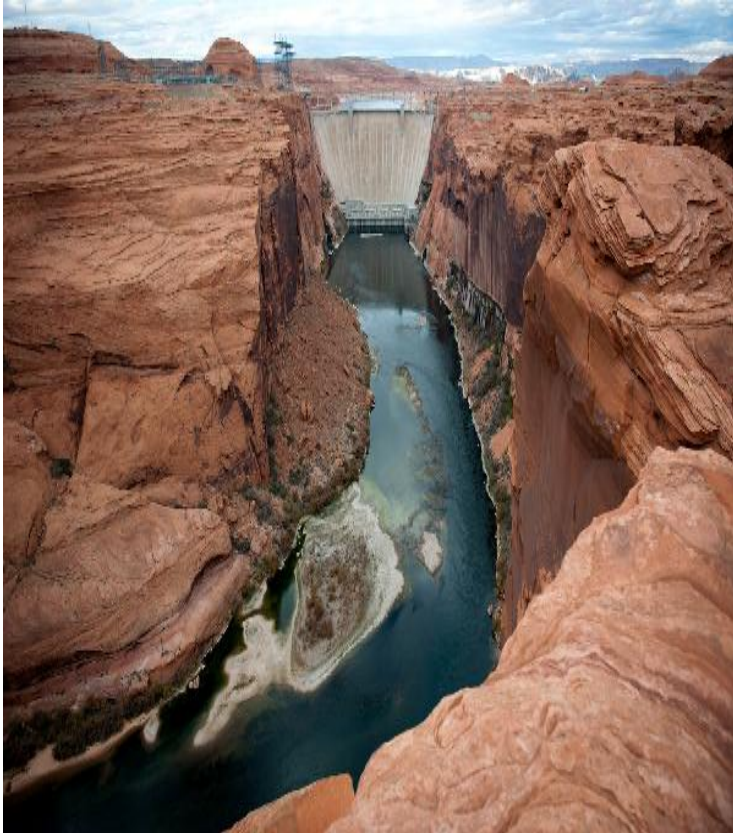
Drought Impacts on Hyrdopower - Colorado River Storage Project

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Western Area Power Administration

What is WAPA?



- A DOE power marketing administration
- Created in 1977 to separate the generation and transmission functions
- WAPA assumed Reclamation's function of marketing and delivering power generated at Federal hydroelectric powerplants in the west and mid-western U.S.

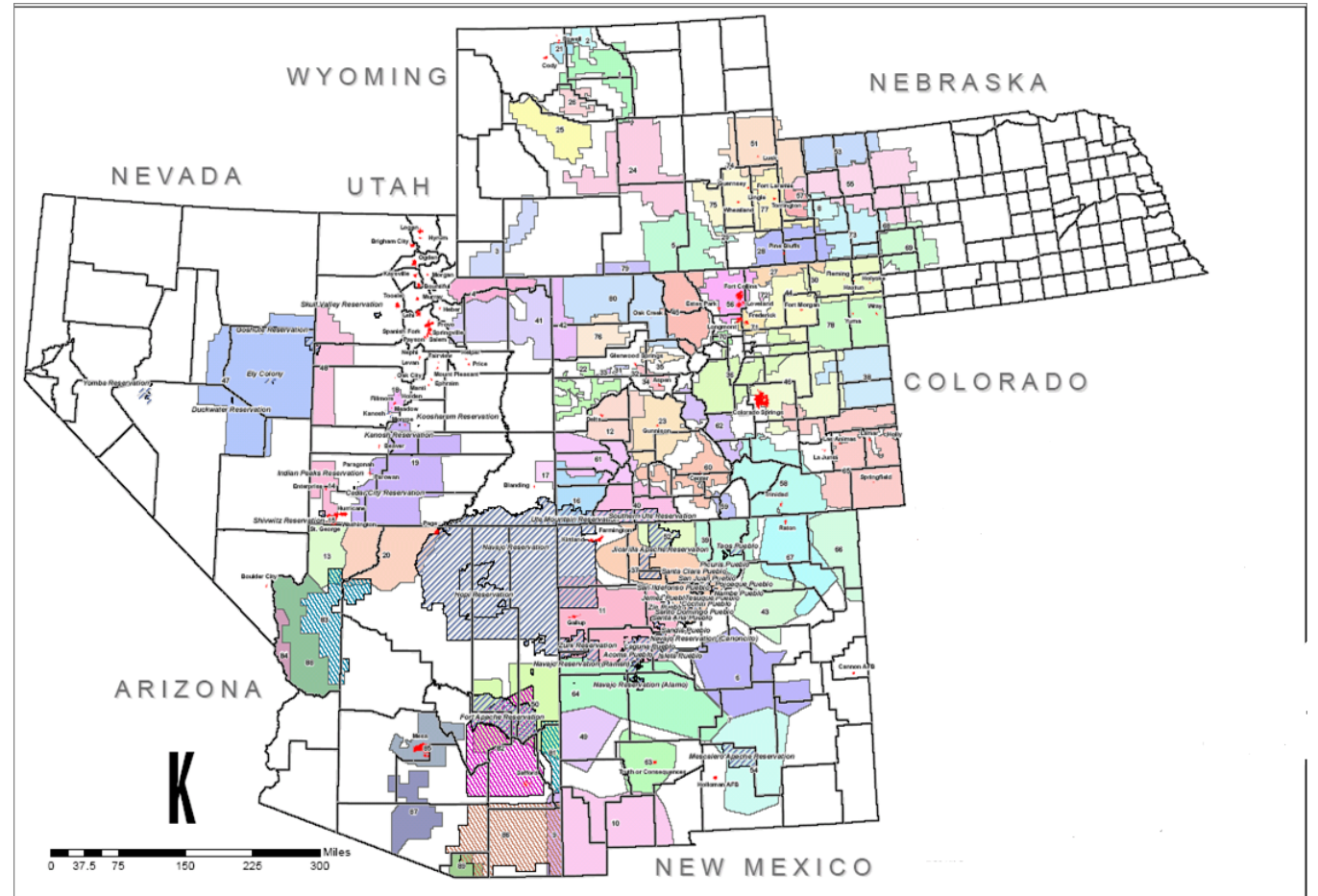
Colorado River Storage Project

- 12 power plants
- 27 generating units
- 1,827 MW total installed capacity (73% from Glen Canyon)
- 4,225 GWh Net Generation (74% from Glen Canyon)
- 2,325 circuit miles (Arizona, Colorado, New Mexico, Utah, Wyoming)



CRSP Customers

- 135 long-term customers
 - 54 Native American tribes
 - 64 Municipalities, cooperatives, irrigation districts
 - 17 Other



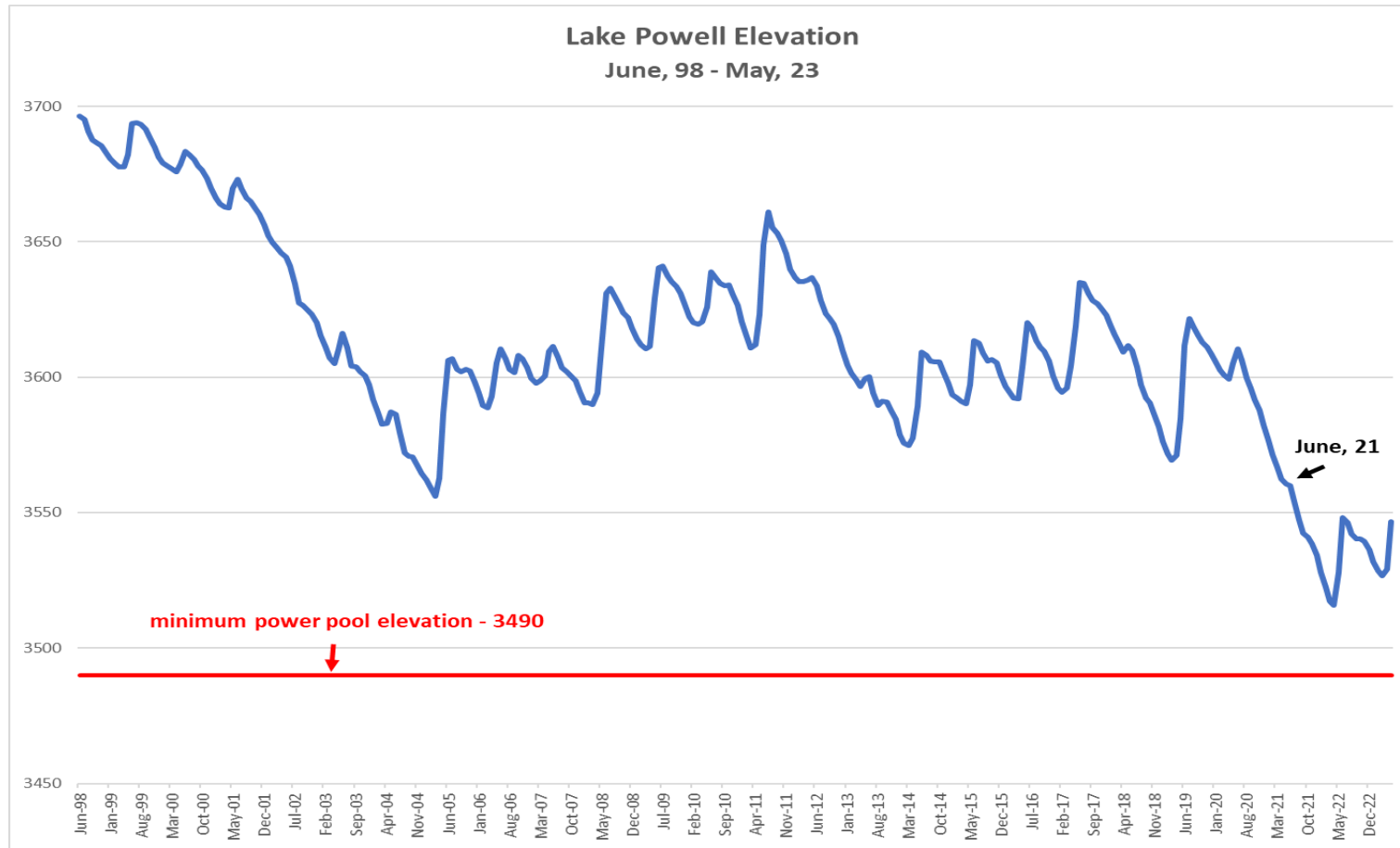
Basin Fund

- CRSP does not get appropriations from Congress. Instead, we have the “Basin Fund”.
 - Manage the financial requirements of the CRSP Act
 - Glen Canyon, Aspinall, Flaming Gorge
 - Several additional units that include dams, reservoirs, powerplants, transmission facilities and other related works
 - Reclamation operations are funded by periodic transfers from the CRSP Basin Fund to a Reclamation subaccount
 - Pay for “Purchase Power”. When we don’t have enough generation, we have to go out and buy power on the market to make up the shortfall.

Hydrology Update

- The Colorado River drought began in WY 2000
 - It is a “continuing drought” because hydrological conditions have not produced enough water to return to full reservoir conditions, even though there have been average and wet years since then
- The elevation of Lake Powell has dropped by 148 feet
 - Its elevation is forecasted to fall another 14 feet by April 2022

Lake Powell Elevation Continues to Drop



Why does Lake Powell elevation matter?

| Lake Powell Elevation | Month YEAR | Glen Canyon Water Release (m Acre Feet/Yr - hypothetical) | Electrical Power Generated (MWhs) | Percentage Change from June, 1968 |
|-----------------------|------------|---|-----------------------------------|-----------------------------------|
| 3696.27 | June 1998 | 9,000 | 4,303,244 | |
| 3560.57 | June 2021 | 9,000 | 3,587,876 | - 24% |
| 3515.68 | April 2022 | 9,000 | 3,218,045 | - 25% |

Since 1998, the amount of electricity that can be produced by a unit of water has decreased by 24%

Projected Purchase Power Costs

- In April of 2020, CRSP projected it would have to purchase \$3.7 million worth of electricity to make up the shortfall in 2022.
- Fast forward to August of 2021, that number went up by \$100 million to \$103 million.
 - Less water to run through Generators.
 - Less efficiency because of lower reservoir elevations.
 - Price to purchase electricity is going up.

Effect on CRSP's Rates

- When CRSP included the future hydrological forecasts into our ratemaking process, CRSP would be looking at a 40 to 50% rate increase.
- CRSP had to work with its customers to incorporate major changes to our business practices.

We are providing our customers the energy CRSP actually generates. If they want us to buy power on their behalf, we will but we will pass through the charges to our customers directly at what we pay.