



One Water and Stewardship Committee

Review of Draft Supplemental Environmental Impact Statement for Colorado River Interim Guidelines

Item 7a

May 8, 2023

Draft SEIS

2007 Interim Guidelines SEIS

The Bureau of Reclamation (Reclamation) is developing a Supplemental Environmental Impact Statement (SEIS) under the National Environmental Protection Act (NEPA)

Progress to Date

November
2022

- Reclamation initiated the process to amend the 2007 Interim Guidelines

January 2023

- California and the Six-States each submitted an alternative for consideration

April 2023

- Reclamation published the Draft SEIS

May 2023

- Comments to the Draft SEIS are due May 30, 2023

Draft SEIS

Draft SEIS Alternatives

The Draft SEIS notes the alternatives submitted by the Colorado River Basin States, but developed its own alternatives for analysis in this SEIS process.

Three Alternatives Analyzed

- **Alternative 1:** reduces deliveries in the Lower Basin according to priority
- **Alternative 2:** reduces deliveries to all Lower Basin water users on a pro-rata basis
- No Action Alternative
- *Draft SEIS did not identify a preferred alternative*

Proposed Federal Action

- Reclamation proposes revisions of the 2007 Interim Guidelines for the near-term operation of Glen Canyon and Hoover Dams starting in 2024.
- The Draft SEIS noted that modified operating guidelines would also inform potential operations in 2025–2026.

Draft SEIS

Draft SEIS Alternatives

Reclamation did not identify a preferred alternative in the Draft SEIS, and may modify the alternatives analyzed in the Final SEIS and Record of Decision

Impacts on Metropolitan

- Alternative 1: Priority
 - Metropolitan takes increasingly large shortages when Lower Basin shortages are 2.083 – 4 maf
 - All of Metropolitan's Priority 3a and Priority 4 entitlements are shorted when Lower Basin shortages reach 3.67 maf
- Alternative 2: Pro-rata basis
 - Metropolitan takes pro-rata shortages when Lake Mead elevation is below 1,090 feet
 - The highest percentage of reduction, 15.5%, occurs at Lake Mead elevation 1,035 – 1,040 feet

Draft SEIS

Alternatives 1 & 2

No new shortages were modeled for Mexico.

Common Elements

- Make changes to operations of Lake Powell/Glen Canyon Dam:
 - Reduce releases when Lake Powell is at or below elevation 3,575 feet to protect elevation 3,500 feet
- Increase Lower Basin shortages
- Model maximum shortages and Drought Contingency Plan Contributions
 - 2.083 maf in 2024
 - 4.0 maf in 2025-26

Changes to Coordinated Reservoir Operations

Draft SEIS

Under both action alternatives, releases from Lake Powell decline below elevation 3,575 feet.

The initial release would be 6.0 maf, with April adjustments up to 8.23 maf.

Replaces the Lower Elevation Balancing Tier with “Protection Level”.

Table 2-10
Comparison of Coordinated Reservoir Operations by Alternative

Lake Powell Elevation (feet)	No Action Alternative	Action Alternatives 1 and 2	Lake Powell Active Storage (maf) ^a
3,700	Equalization Tier Equalize, avoid spills, or release 8.23 maf	Equalization Tier Equalize, avoid spills, or release 8.23 maf	23.31
3,636–3,666 (see Table 2.3-1 in the 2007 FEIS)	Upper Elevation Balancing Tier Release 8.23 maf; if Lake Mead <1,075 feet, balance contents with a minimum/maximum release of 7.0/9.0 maf	Upper Elevation Balancing Tier Release 8.23 maf; if Lake Mead <1,075 feet, balance contents with a minimum/maximum release of 7.0/9.0 maf	14.65–18.36 (2008–2026)
3,575	Mid-Elevation Release Tier Release 7.48 maf; if Lake Mead <1,025 feet, release 8.23 maf	Lower Elevation Release Tier Set initial release: 6.0 maf; adjust releases based on April Lake Powell end-of-water-year elevation projection: ≥3,575 feet, release 8.23 maf <3,575 feet AND ≥3,550 feet, release 7.48 maf <3,550 feet AND ≥3,525 feet, release 7.0 maf	8.90
3,525	Lower Elevation Balancing Tier Balance contents with a minimum/maximum release of 7.0/9.5 maf	<3,525 feet AND ≥3,500 feet, maintain release of 6.0 maf <3,500 feet, then reduce releases (gains equals losses) such that Lake Powell ends the operating year at 3,500 feet	5.55
3,500		Protection Level <3,500 feet in any month, reduce releases (gains equals losses) such that Lake Powell ends the operating year at 3,500 feet	4.22
3,370			0

^aActive storage values have been updated from 2007 based on the 2018 bathymetry.

Draft SEIS

Alternative 1: Priority

California begins to share in shortage when no Arizona fourth priority Colorado River water is available. The Central Arizona Project and other post-1968 rights are fourth priority.

Lower Basin Shortage Modeling Assumptions

- Stage 1 shortages:
 - Nevada: 4%
 - Arizona: 96%
 - California: take no Stage 1 shortages
- Stage 2 shortages:
 - Nevada: 4%
 - Arizona: 19.6%
 - California: 76.4%

Table 2-4
Lower Division States' Shortages and DCP Contributions by State, Action Alternative 1
(2024)

Lake Mead Elevation (feet)	2007 ROD Shortage + 2019 DCP Contributions (1,000 af)				2024 Action Alternative 1 Additional Shortage* (1,000 af)				2024 Total Shortages + Contributions (1,000 af)			
	AZ	NV	CA	Total	AZ	NV	CA	Total	AZ	NV	CA	Total
1,090 – >1,075	192	8	0	200	192	8	0	200	384	16	0	400
1,075 – 1,050	512	21	0	533	511	22	0	533	1,023	43	0	1,066
<1,050 – >1,045	592	25	0	617	593	24	0	617	1,185	49	0	1,234
1,045 – >1,040	640	27	200	867	1,025	42	0**	1,067	1,665	69	200	1,734***
1,040 – >1,035	640	27	250	917	1,098	56	12	1,166	1,738	83	262	2,083
1,035 – >1,030	640	27	300	967	1,098	56	0**	1,154	1,738	83	300	2,083***
1,030 – 1,025	640	27	350	1,017	1,098	56	0**	1,154	1,738	83	350	2,083***
<1,025 – 1,000	720	30	350	1,100	1,018	53	0**	1,071	1,738	83	350	2,083***
<1,000 – 975	720	30	350	1,100	1,018	53	0**	1,071	1,738	83	350	2,083***
<975 – 950	720	30	350	1,100	1,018	53	0**	1,071	1,738	83	350	2,083***
<950	720	30	350	1,100	1,018	53	0**	1,071	1,738	83	350	2,083***

Table 3-1
Lower Division States' Shortages and Contributions by State, Action Alternative 1
(2025–2026)
(All volumes in 1,000 af)

Lake Mead Elevation (feet)	2007 ROD Shortage + 2019 DCP Contributions				2025–2026 Action Alternative 1 Additional Shortage*				2025–2026 Total Shortages and Contributions			
	AZ	NV	CA	Total	AZ	NV	CA	Total	AZ	NV	CA	Total
1,090 – >1,075	192	8	0	200	192	8	0	200	384	16	0	400
1,075 – 1,050	512	21	0	533	511	22	0	533	1,023	43	0	1,066
<1,050 – >1,045	592	25	0	617	593	24	0	617	1,185	49	0	1,234
1,045 – >1,040	640	27	200	867	1,025	42	0**	1,067	1,665	69	200	1,734***
1,040 – >1,035	640	27	250	917	1,098	56	12	1,166	1,738	83	262	2,083
1,035 – >1,030	640	27	300	967	1,131	63	89	1,131	1,771	90	389	2,250
1,030 – 1,025	640	27	350	1,017	1,180	73	230	1,180	1,820	100	580	2,500
<1,025 – 1,000	720	30	350	1,100	1,198	90	612	1,900	1,918	120	962	3,000
<1,000 - 975	720	30	350	1,100	1,263	103	867	2,233	1,983	133	1,217	3,333
<975 - 950	720	30	350	1,100	1,329	117	1,122	2,567	2,049	147	1,472	3,667
<950	720	30	350	1,100	1,394	130	1,376	2,900	2,114	160	1,726	4,000

Lake Mead Elevation (feet)	2007 ROD Shortages + 2019 DCP Contributions (1,000 af)				2024 Additional Shortage* (1,000 af)				
	AZ	NV	CA	Total	Percentage Additional Reduction**	AZ	NV	CA	Total
1,090 – >1,075	192	8	0	200	2.67%	75	8	117	200
1,075 – 1,050	512	21	0	533	7.11%	199	21	313	533
<1,050 – >1,045	592	25	0	617	8.23%	230	25	362	617
1,045 – >1,040	640	27	200	867	11.56%	324	35	509	867
1,040 – >1,035	640	27	250	917	15.55%	435	47	684	1,166
1,035 – >1,030	640	27	300	967	14.88%	417	45	655	1,116
1,030 – 1,025	640	27	350	1,017	14.21%	398	43	625	1,066
<1,025 – 1,000	720	30	350	1,100	13.11%	367	39	577	983
<1,000 – 975	720	30	350	1,100	13.11%	367	39	577	983
<975 – 950	720	30	350	1,100	13.11%	367	39	577	983
<950	720	30	350	1,100	13.11%	367	39	577	983

Draft SEIS

Alternative 2: Pro-Rata

In Alternative 2, reductions would be made on all Lower Basin water users on a pro-rata basis. The percentage of reduction is based on Lake Mead elevations.

Draft SEIS

Changes in Conditions

The September CRMSS was
used for modeling the Draft
SEIS

Unregulated Inflow Forecasts into Lake Powell

- In September 24-Month Study
 - 8.30 maf
 - 86% of average
- In April 24-Month Study
 - 14.47 maf
 - 151% of average

Draft SEIS

Changes in Conditions

The most probable inflow forecast, the April 2023 24-Month Study projects a balancing release of 9.50 maf from Lake Powell in WY 2023

Forecasts for Reservoir Elevation

- September 24-Month Study Most Probable scenario end of 2023 projected elevations:
 - Lake Powell - 3,525 feet
 - Lake Mead - 1,023 feet
- April 24-Month Study Most Probable scenario end of 2023 projected elevations:
 - Lake Powell - 3,573 feet
 - Lake Mead - 1,068 feet

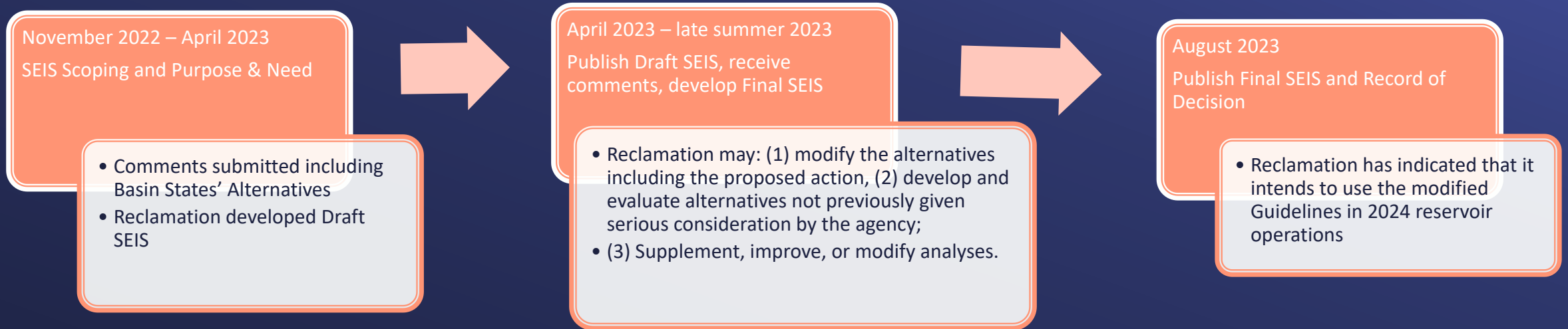
Changes in Conditions

5-Year Probabilistic
Projections that Lake Powell
and Lake Mead will fall below
certain critical reservoir
elevations

Chance of Reaching Critically Low Reservoir Elevations

- Lake Powell reaching 3,525 feet
 - January 2023 CRMSS
 - WY 2024: 37%
 - WY 2025: 30%
 - WY 2026: 23%
 - April 2023 CRMSS
 - WY 2024: 0%
 - WY 2025: 0%
 - WY 2026: 3%

SEIS Process and Proposed Schedule



Recent Developments & Next Steps

- Provide updates and receive Board input and direction
- Continue discussions with Basin States and the Interior Department regarding options for agreement about how to operate the Colorado River reservoirs through 2026
- Develop comments to Draft SEIS in advance of the comment deadline

