Saylorville Lake – Growing Season (Apr 21 – Dec 15) Water Control Plan

Current Plan Overview

- Uncontrolled spillway and conduit discharge (discharge 42,000+ cfs).

Elevation 890 – Full Flood Control Pool
100 % Flood Control Storage Utilized

- 12,000 – 21,000 cfs maximum release based on reservoir elevation.
- No balancing of flood storage with Lake Red Rock.
- No downstream constraints on discharge.

Elevation 875 – Start of Large Magnitude Flood Operation
62 % Flood Control Storage Utilized

- 12,000 / 16,000 cfs maximum release based on Lake Red Rock Elevation.
- No balancing of flood storage with Lake Red Rock.
- Reduce releases below maximum release as needed to maintain gage at SE 6th Street (Des Moines) below 24 feet (2,000 cfs minimum release).
- If Beaver Creek flow is above 10,000 cfs, release reservoir inflow or 2,000 cfs, whichever is higher.

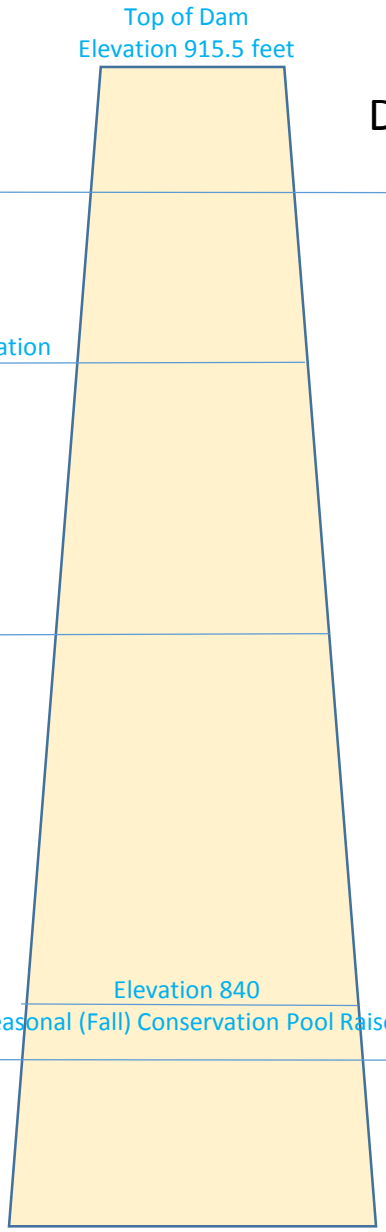
Elevation 860
32 % Flood Control Storage Utilized

- 12,000 / 16,000 cfs maximum release based on Lake Red Rock Elevation.
- Balance flood storage with Lake Red Rock.
- Reduce releases below maximum release as needed to maintain gage at SE 6th Street (Des Moines) below 24 feet (2,000 cfs minimum release).
- If Beaver Creek flow is above 10,000 cfs, release reservoir inflow or 2,000 cfs, whichever is higher.

Elevation 840
Seasonal (Fall) Conservation Pool Raise

Elevation 836 – Conservation Pool
0 % Flood Control Storage Utilized

- Maintain minimum 200 cfs conservation release, and 270 cfs minimum flow at SE 6th Street Gage, until reservoir falls to elevation 827.0. Progressively lower releases as reservoir continues to fall.
- Release contracted water supply storage (State of Iowa) as requested.



Design Flood Surcharge Storage

Flood Control Storage
561,800 Acre-Feet*

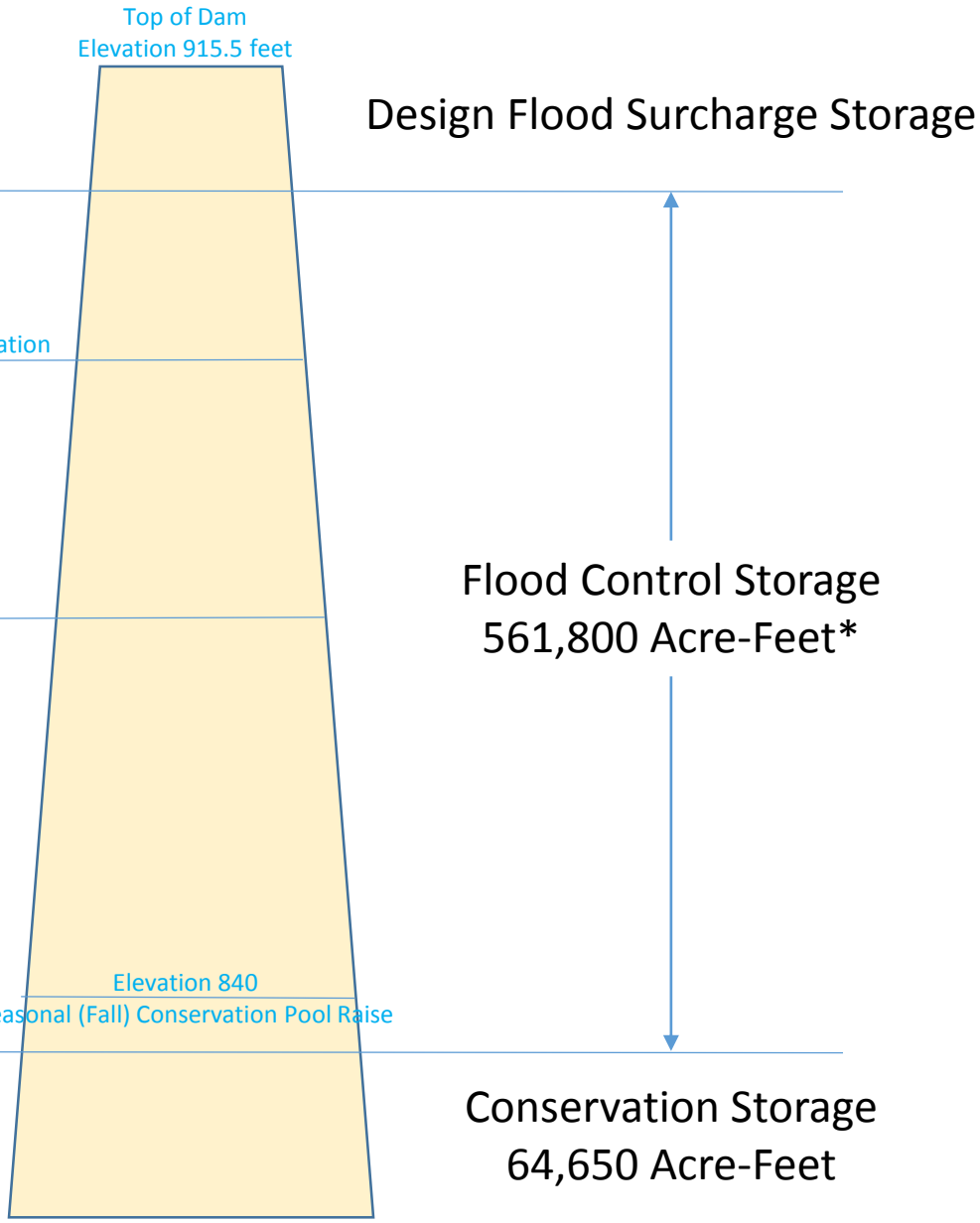
Conservation Storage
64,650 Acre-Feet

* Storage values based upon 2014 survey.

Saylorville Lake – Non-Growing Season (Dec 16 – Apr 20) Water Control Plan

Current Plan Overview

- Uncontrolled spillway and conduit discharge (discharge 42,000+ cfs).



- 16,000 – 21,000 cfs maximum release based on reservoir elevation.
- No balancing of flood storage with Lake Red Rock.
- No downstream constraints on discharge.

- 16,000 cfs maximum release.
- No balancing of flood storage with Lake Red Rock.
- Reduce releases below maximum release as needed to maintain gage at SE 6th Street (Des Moines) below 24 feet (2,000 cfs minimum release).
- If Beaver Creek flow is above 10,000 cfs, release reservoir inflow or 2,000 cfs, whichever is higher.

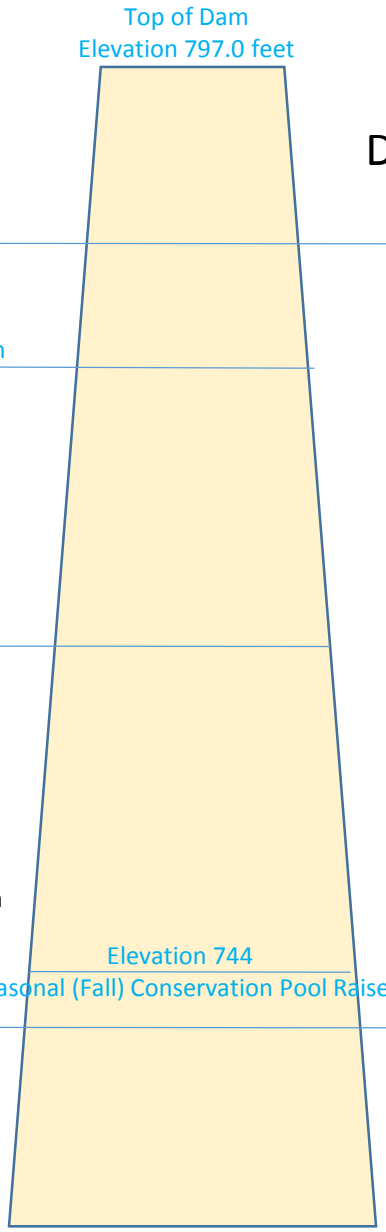
- 16,000 cfs maximum release.
- Balance flood storage with Lake Red Rock.
- Reduce releases below maximum release as needed to maintain gage at SE 6th Street (Des Moines) below 24 feet (2,000 cfs minimum release).
- If Beaver Creek flow is above 10,000 cfs, release reservoir inflow or 2,000 cfs, whichever is higher.

- Maintain minimum 200 cfs conservation release, and 270 cfs minimum flow at SE 6th Street Gage, until reservoir falls to elevation 827.0. Progressively lower releases as reservoir continues to fall.
- Release contracted water supply storage (State of Iowa) as requested.

* Storage values based upon 2014 survey.

Lake Red Rock – Growing Season (May 1 – Dec 15) Water Control Plan

Current Plan Overview



- 60,000 – 130,000 cfs maximum release based on pool elevation up to Elevation 785; uncontrolled (open spillway) release thereafter.
- No downstream constraints on release.

Elevation 780 – Full Flood Control Pool
100 % Flood Control Storage Utilized

- 30,000 – 60,000 cfs maximum release based on reservoir elevation.
- No downstream constraints on release.

Elevation 775 – Start of Large Magnitude Flood Operation
79 % Flood Control Storage Utilized

- 22,000 cfs maximum release.
- Reduce releases below maximum release as needed to maintain Ottumwa and Keosauqua Gages below 8.7 and 18.4 feet, respectively (5,000 cfs minimum release).
- If Burlington or Quincy Gage on Upper Mississippi River is forecast to exceed 18.5 or 20.0 feet, respectively, reduce outflow to reduce peak on Mississippi to the extent possible (variable minimum release based on reservoir elevation).

Elevation 760
31 % Flood Control Storage Utilized

- 18,000 cfs maximum release.
- Reduce releases below maximum release as needed to maintain Ottumwa and Keosauqua Gages below 7.5 and 17.6 feet, respectively (5,000 cfs minimum release).
- If Burlington or Quincy Gage on Upper Mississippi River is forecast to exceed 18.5 or 20.0 feet, respectively, reduce outflow to reduce peak on Mississippi to the extent possible (variable minimum release based on reservoir elevation).

Elevation 744
Seasonal (Fall) Conservation Pool Raise

Elevation 742 – Conservation Pool
0 % Flood Control Storage Utilized

- Maintain 300 cfs minimum conservation release until reservoir falls to elevation 734.0. Progressively lower releases as reservoir continues to fall.

Design Flood Surcharge Storage

Flood Control Storage
1,463,250 Acre-Feet*

Conservation Storage
185,450 Acre-Feet

* Storage values based upon 2011 survey.

Lake Red Rock – Non-Growing Season (Dec 16 – Apr 30) Water Control Plan

Current Plan Overview

- 60,000 – 130,000 cfs maximum release based on pool elevation up to Elevation 785; uncontrolled (open spillway) release thereafter.
- No downstream constraints on release.

Elevation 780 – Full Flood Control Pool
100 % Flood Control Storage Utilized

- 30,000 – 60,000 cfs maximum release based on reservoir elevation
- No downstream constraints on release.

Elevation 775 – Start of Large Magnitude Flood Operation
79 % Flood Control Storage Utilized

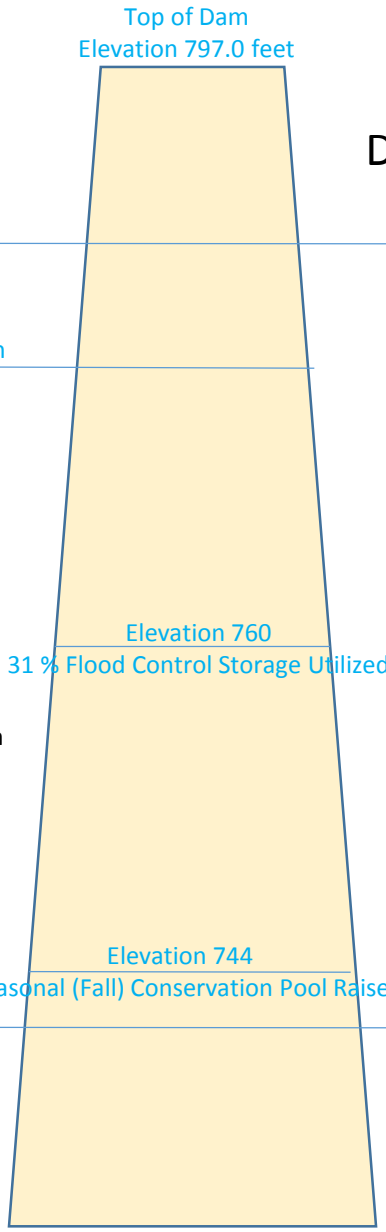
- 30,000 cfs maximum release.
- Reduce releases below maximum release as needed to maintain Ottumwa and Keosauqua Gages below 10.8 and 19.6 feet, respectively (5,000 cfs minimum release).
- If Burlington or Quincy Gage on Upper Mississippi River is forecast to exceed 18.5 or 20.0 feet, respectively, reduce outflow to reduce peak on Mississippi to the extent possible (variable minimum release based on reservoir elevation).

Elevation 760
31 % Flood Control Storage Utilized

Elevation 744
Seasonal (Fall) Conservation Pool Raise

Elevation 742 – Conservation Pool
0 % Flood Control Storage Utilized

- Maintain 300 cfs minimum conservation release until reservoir falls to elevation 734.0. Progressively lower releases as reservoir continues to fall.



Design Flood Surcharge Storage

Flood Control Storage
1,463,250 Acre-Feet*

Conservation Storage
185,450 Acre-Feet

* Storage values based upon 2011 survey.