Proposed Changes to the Summit Alternative

The proposed changes are intended to be included in the initial phase of an adaptive management program that will also include monitoring and mitigation.

Pre-Spring Species Flow Period

Summit Alternative

- Begin the navigation season with a flat release of 21,000 cfs.

Proposed Changes

- Start the navigation season one week earlier when possible.
- When determined beneficial, provide a channel conditioning flow of 31,000 cfs for the first week of the navigation season.
- Full service navigation flows until April 14th followed by intermediate or minimum service flows.

The changes attempt to: (1) fulfill the Missouri River commercial navigators need for water early in the season, (2) help scour the channel and ease the transition from winter to navigation flows, (3) provide a plains snow type of increase in flow (15,000 cfs increase), and (4) provide stable or slightly rising reservoir levels during spawning periods.

Spring Species Flow Period

Summit Alternative

- Spring species flow increase to 40,000 cfs from approximately 21,000 cfs for 24 days followed by full service + 5000 cfs flows.

Proposed Changes

- Spring species flow increase to 40,000 cfs from approximately 24,000 cfs for 14 days followed by full service + 5000 cfs flows.

The changes should further reduce the risk of flooding to farm fields south of the Platte River. The duration of the period of increased flows is reduced from 24 to 14 days. The spring species flow increase of 16,000 cfs is intended to be a spawning cue. The overall flow increase of 16,000 cfs is comparable in the scope of change (spawning cue) to the 17,500 cfs flow increase recommended by the

Fish & Wildlife Service. It should provide secondary benefits of maintaining low sandbars and wetting some backwaters and side channels.

The pre-spring species flow increase mimics the plains snow increase in flows of the natural hydrograph and the spring habitat enhancement flow increase mimics a mountain snow type of flow increase. The proposal provides a flow pattern that follows the changes in flow seen in a natural hydrograph during the spring spawning season.

Summer Flow Period

Summit Alternative

- Intermediate level of service in July and August.

Proposed Changes – Divide flows into three periods: High flows (upper 1/3rd); Median flows (middle 1/3rd); and Low flows (lower 1/3rd).

- Low flow years – Hold to minimum service levels in July and August.
- Median flow years – between July 15th and August 15th, releases will be targeted for 25,000 cfs out of Gavins Point. They may be adjusted to meet summer thermal power targets of 25,000 cfs at Omaha and 31,000 cfs at Nebraska City.
- High flow year – maintain operations at what is now considered full navigation service and when possible, manage flood evacuation water to benefit sandbar building and downstream recreation.

During median flow years, from July 15th to August 15th, the releases will be reduced to a target of 25,000 cfs at Gavins Point. The releases can be adjusted up or down in order to meet summer thermal power plant targets (25,000 cfs at Omaha and 31,000 cfs at Nebraska City). Because of the low tributary flows during low flow years, the summer habitat flow will be held to flow targets at what is now considered minimum service during July and August. The reduction from full navigation service will increase the amount of shallow water habitat. When releases are held to the full service navigation target after August 15th, recreation on the lower river should benefit because of increased sandbar and shoreline exposure. The water saved can then be released later in the fall or winter when it can be used to build and maintain sandbars above Ponca, Nebraska.

Fall/Winter Release Period

Summit Alternative

- Increase the service level to full + 2,500 cfs in November and December
- Increase the season length by 10 days.

Proposed Changes

- Keep the level of service at full service through the end of the season.
- Increase the season length by 10 days.
- Increase winter flows by 3,000 cfs to benefit hydropower generation during second highest peak demand period.
- When possible, manage flood evacuation water to benefit sandbar building and downstream recreation.
- When the system storage level falls to a low level the navigation season will be shortened according to the curves.
- When possible, carry over water to begin navigation one week early the following spring.

When intermediate flows are called for by the navigation curves water is saved by going to minimum service in July and August. That water can then be released later in the winter as an extension to the navigation season.

Figure 1 shows an idealized hydrograph for the median periods – the middle 1/3.
Figure 2 shows an idealized hydrograph for the high flow periods – the upper 1/3.
Figure 3 and 4 show idealized hydrographs for the low flow period. Figure 3 shows the intermediate service hydrograph and Figure 4 shows the minimum service hydrograph.

This proposal is prepared and offered as an attempt to compromise and settle the ongoing disputes over operations of the Missouri River pursuant to Federal Rules of Evidence, Rule 408 and may not be admissible in evidence in any pending or subsequently filed action.

Figure 1

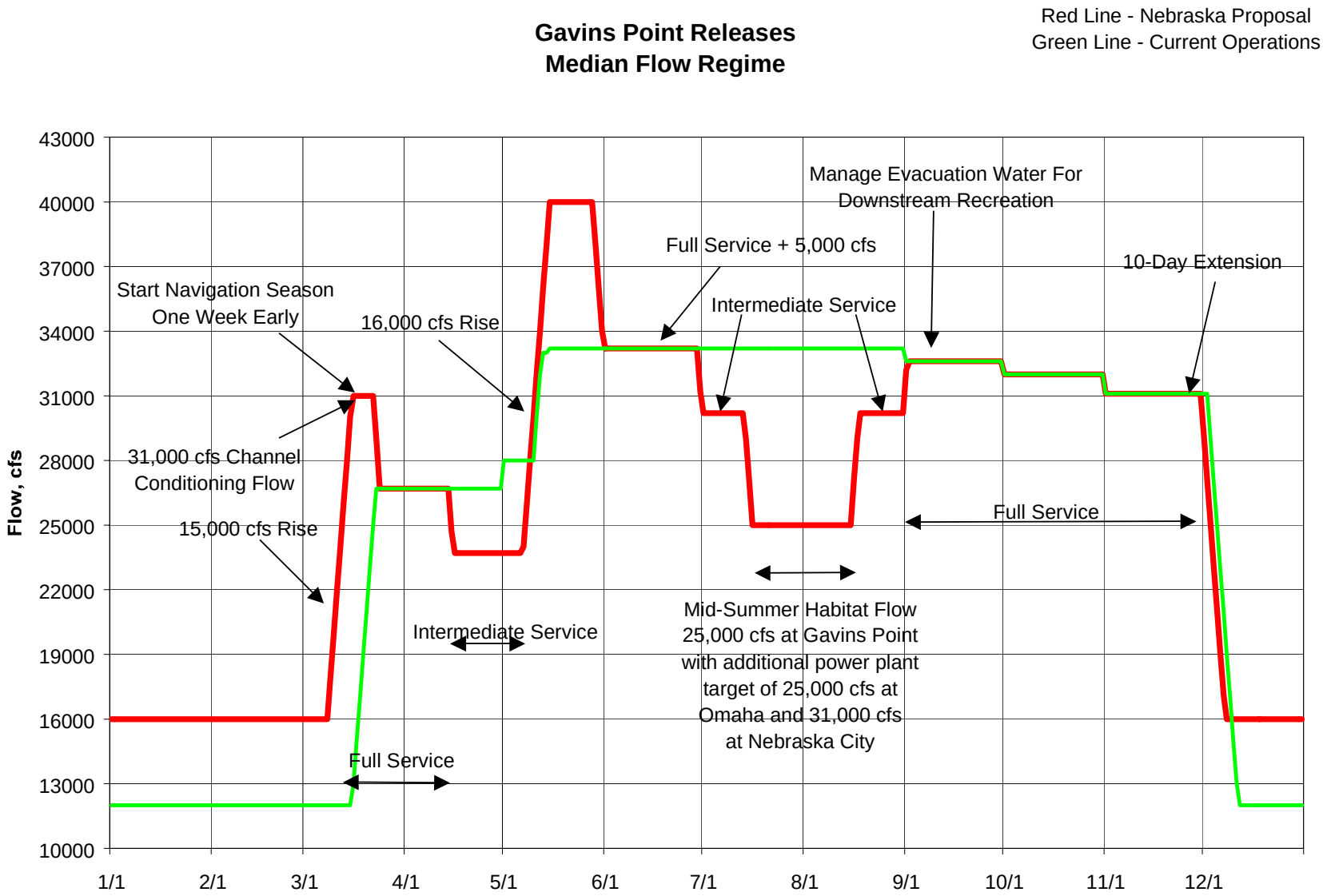

Figure 2

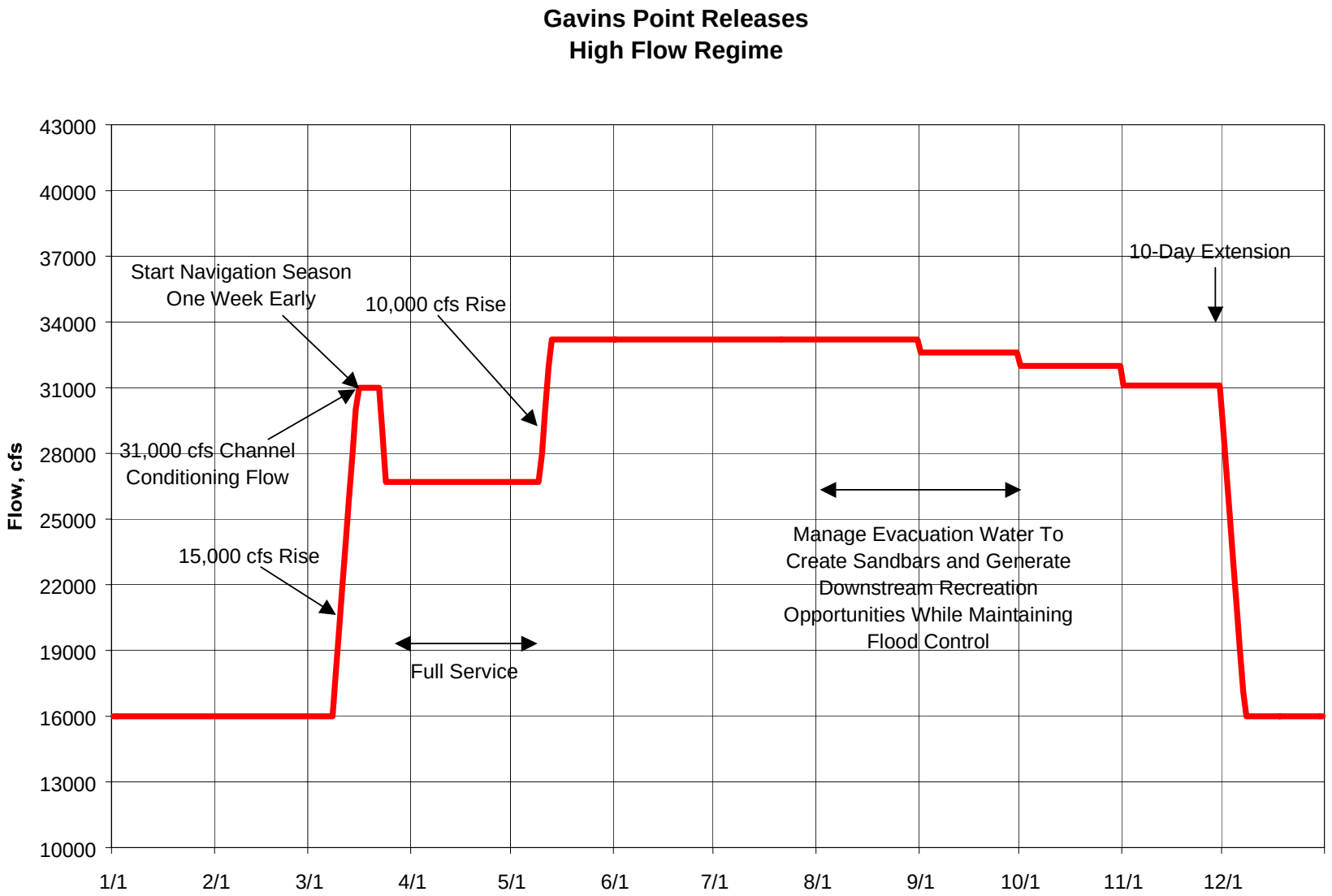

Figure 3

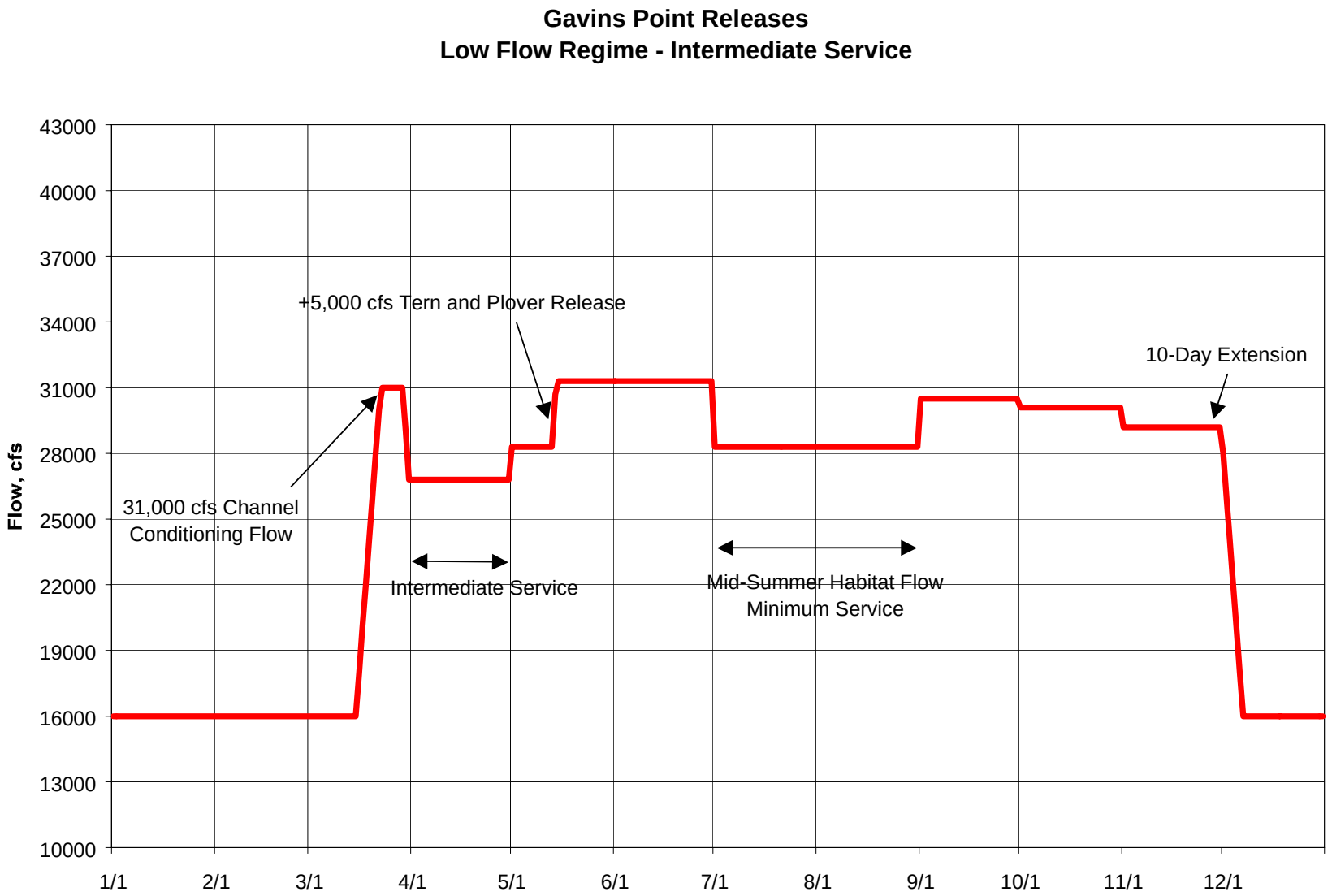

Figure 4