

Attachment F
2026 Drought Response Operations Plan
Natural Resources Consideration

Overview of consideration of Natural Resource Conditions, as applicable:

Lake Powell:

- Minimizing reservoir elevation drop to address considerations of non-native predators potentially passing through Glen Canyon Dam and the potential effects on listed species: The 2026 Plan is designed to raise the elevation of Lake Powell. Research regarding the effect of low reservoir elevations in Lake Powell is ongoing concerning the elevations where passthrough increases because the temperature zones suitable for non-natives are overlapping with the penstocks. Though this research is ongoing, higher elevations, particularly those at or above 3,525 ft., could potentially reduce the risk of warm-water predators passing through Glen Canyon Dam. Elevations above 3,600 ft. would provide cooler water temperatures below Glen Canyon Dam that would likely create unsuitable conditions for spawning by predators down to the confluence with the Little Colorado River. These conditions could reduce the risk to the ESA-listed and other native fish below Glen Canyon Dam.
- Releasing most of the withheld winter volume as a spring peak flow in May or June: The Department of the Interior will work with the Adaptive Management Program to identify potential release options and assess their potential effects, including but not limited to experimental releases that could address predation by non-natives and sediment retention.
- Consideration of effects on sediment erosion and river temperature concerns related to warm water nonnative fish breeding: Effects of Drought Response Operations regarding Lake Powell releases on sediment erosion and river temperature will be considered by the Department of the Interior working with the Adaptive Management Program to identify potential release options and assess their potential effects.

Flaming Gorge:

- Razorback Sucker: Floodplain wetland habitats provide important ecological functions to benefit endangered fishes of the Green River if those habitats are hydrologically connected to the main channel at a frequency and duration to meet life history needs. Drought Response Releases to extend the duration or augment the magnitude of spring peak flows can benefit razorback sucker recruitment if the Drought Response Releases are scheduled according to the Larval Trigger Study Plan experiment. Drought Response Releases from Flaming Gorge Dam should occur after razorback sucker larvae first presence is documented in the Green River, based on real-time capture information. Augmenting the magnitude or duration of spring peak flows increases the likelihood of inundating floodplain wetland habitats and entraining larval razorback sucker into those nursery habitats. Floodplain wetlands are important nursery habitats for early life stages of the razorback sucker, and it is assumed that peak flows of sufficient magnitude, duration, and frequency that occur when larval suckers are drifting and can be entrained in wetlands also benefit other endangered fishes. Drought

47 Response Releases would augment spring peak flows to support endangered species by
48 filling wetlands that otherwise may not have connected. Longer connections also provided by
49 Drought Response Releases add more water to wetland systems, increasing their likelihood
50 of maintaining water through the subsequent summer.

51

52 ● Colorado Pikeminnow: Drought Response Releases to augment base flows in summer
53 through autumn could benefit Colorado pikeminnow larvae and juveniles by assisting in
54 larval transport from the spawning bar to nursery habitats, and by maintaining those habitats
55 through summer. Years of moderate summer baseflows consistent with the ranges described
56 in the Flaming Gorge Record of Decision tend to be years with higher abundance of
57 Colorado pikeminnow. The Drought Response Releases, timed to create suitable habitat
58 conditions prior to Colorado pikeminnow arrival from the Yampa River downstream into
59 Green River nursery habitat, could enhance the survival of Colorado pikeminnow larvae.
60 Suitable timing involves implementing baseflows up to one week prior to arrival of Colorado
61 pikeminnow larvae. These types of releases could also increase and maintain backwater
62 nursery habitats. Releases extended through the winter at the summer release volumes or
63 less could extend the presence of the backwater nursery habitat through the fall and winter
64 when the species may be vulnerable. Releases higher than summer through winter base flow
65 ranges described in the Flaming Gorge Record of Decision may substantially reduce nursery
66 habitats and displace small Colorado pikeminnow during a vulnerable time of year, which is
67 why the U.S. Fish and Wildlife Service recommends Drought Response Releases remain in
68 the suggested pikeminnow baseflow release targets after summer.

69

70 ● Smallmouth Bass: Although a smallmouth bass flow spike is considered part of this year's
71 baseline flow releases and is not part of the Drought Response Releases in 2026, Drought
72 Response Releases can be used to implement the smallmouth bass flow spike experiment.
73 This experiment is intended to reduce the reproductive success of this invasive, nonnative
74 predator, which will benefit endangered fishes by reducing predation.

75

76 ● Channel complexity and vegetation: Drought Response Releases to extend the duration or
77 augment the magnitude of spring peak flows can help to maintain channel complexity and
78 reduce vegetation encroachment; however, releases that augment base flows could encourage
79 vegetation establishment and encroachment, and erode channel topography, particularly in
80 years when sediment supplies (from the Yampa) are low (drought years) . The Drought
81 Response Releases that include bypass flows in spring could support channel maintenance
82 functions, which may be especially valuable now due to multiple years of low-flow
83 conditions. Consecutive years of Drought Response Operations may impact interannual
84 variability of flow regimes between years, with low variability (that includes consistent
85 elevated baseflows during the growing season) this may lead to increased vegetation
86 establishment. Vegetation establishment and encroachment is discouraged, stopped, or
87 reversed by longer-duration higher-magnitude spring peak flows as augmented by Drought
88 Response Operations.

89

90 ● Consideration of experimental recommendations of the Upper Colorado River Endangered
91 Fish Recovery Program: Drought Response Releases in the form of a spring peak flow, a
92 Smallmouth Bass flow spike, and summer base flows to benefit Colorado Pikeminnow will

93 address all three experimental priorities from the Recovery Program’s 2026 flow request
94 letter, assuming dry to average hydrology. The currently proposed Drought Response
95 Releases from Flaming Gorge attempt to meet these experimental requests and are within the
96 range of flows recommended by the Recovery Program to benefit ESA-listed fish species.
97 Applying Drought Response Release volumes to these experiments will increase the
98 likelihood of achieving individual experimental requests, as well as increasing the chances of
99 implementing more experiments than otherwise might occur in a moderately dry flow
100 scenario.

- 101
- 102 ● Consideration of Drought Response Operations relative to recommended baseflows between
103 December and March: Under currently projected hydrology, Drought Response Releases in
104 winter (December through March) could be higher than base flow recommendations listed in
105 Muth et al. (2000). Winter base flow releases proposed as part of Drought Response Releases
106 are consistent with experimental base flow recommendations that are proposed to benefit
107 Colorado Pikeminnow nursery habitat and could maintain those habitats during the winter.
108 Winter base flows higher than the experimental recommendations (scaled to hydrology)
109 should be avoided, since higher flows in winter could “overtop” nursery backwaters with the
110 main channel, create flow-through conditions and displace juvenile Colorado pikeminnow
111 during a vulnerable life stage and critical time of year.

112

113

114 **Aspinall:**

- 115 ● Effects of Drought Response Operations involving Blue Mesa will be described in potential
116 modifications to the 2026 Drought Response Operations Plan, if applicable.

117

118

119 **Navajo Reservoir:**

- 120 ● Effects of Drought Response Operations involving Navajo Reservoir will be described in
121 potential modifications to the 2026 Drought Response Operations Plan, if applicable.

122

123

124 **All Upstream Initial Units:**

- 125 ● Effects of future Drought Response Recovery: Though no Drought Response Recovery is
126 proposed for the 2026 Plan, future Plans should consider recommendations concerning the
127 effects of Drought Response Recovery on natural resource conditions.

128

129

130