

**Potential Legal Issues under the Law of the River
Associated with the Fill Mead First Proposal**
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The Glen Canyon Institute (GCI) has proposed a dramatic change to operations of Glen Canyon and Hoover Dams on the Colorado River. Called “Fill Mead First,” this approach proposes that the declining water supply from the Upper Colorado River Basin be stored primarily in Lake Mead, with the balance of the water held in Powell. At present, water is maintained at approximately equal levels in the two reservoirs. Under current conditions the effect is that both reservoirs are about half full. GCI argues it makes better sense to keep Mead full so that less of the Glen Canyon area is under water. It also asserts there would be a savings of water because less would be lost to bank storage. And it believes a more natural flow of water through Glen Canyon Dam would benefit the Grand Canyon.

The recently completed Colorado River Basin Water Supply and Demand Study¹ verified the critical problems facing the basin states, signaling the need for action. As the states, the federal government, and other interested parties contemplate next steps, Fill Mead First (FMF) may warrant serious consideration. This article considers whether there are legal impediments to adopting a FMF strategy and, if so, how they might be addressed. In particular, the article considers the following three questions:

1. Is the Fill Mead First proposal² possible under the Colorado River Compact and various federal and state laws? If there are barriers, what are they?

2. Is the Fill Mead First (FMF) proposal possible under existing Colorado River administrative regulations, guidelines, and agreements? If there are barriers, what are they?

3. Are there plausible steps to overcome legal, regulatory, or administrative barriers? If so, what are they?

¹ The report is available online at <http://www.usbr.gov/lc/region/programs/crbstudy.html>.

² For a discussion of this proposal, see Michael Kellett, FILL MEAD FIRST: A PLAN FOR SAVING COLORADO RIVER WATER (Glen Canyon Institute, 2013).

The article begins with a brief overview of key pieces of the Law of the River. It turns to a discussion of potential legal issues raised by the FMF proposal. It concludes that Department of the Interior guidance would have to be changed, requiring agreement among the basin states, but that no existing laws absolutely bar adoption of the FMF proposal.

I. Relevant Pieces of the Law of the River

A. The Colorado River Compact (1922 Compact)³

The purpose of the 1922 Compact was to divide the consumptive use of the water available in the Colorado River Basin between users in the Upper Division states of Arizona, Colorado, New Mexico, Utah, and Wyoming and users in the Lower Division states of Arizona, California, Nevada, New Mexico, and Utah. Article III (a) apportioned the consumptive use of 7.5 million acre-feet (maf) to a hydrologically-defined Upper Basin and an equal amount to the Lower Basin. Article III (b) authorized consumptive use of an additional one maf in the Lower Basin.

The key relevant provision of the 1922 Compact for the purposes of this paper is Article III (d), which provides: “The States of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years reckoned in continuing progressive series beginning with the first day of October next succeeding the ratification of this compact.” Under this provision, flows at Lee Ferry are measured to ensure that at least 75 maf pass this point (the dividing line between the two basins) over consecutive 10-year periods. While the Compact does not require a fixed amount each year (only that there be at least 75 maf for each preceding ten-year period), the operating procedure for managing releases from Glen Canyon Dam (as discussed below) has ensured that at least 8.25 maf of water (including 750,000 acre-feet for the Mexico Treaty obligation) passes Lee Ferry annually.

B. The Boulder Canyon Project Act (BCPA)⁴

³ Available online at <http://www.usbr.gov/lc/region/g1000/pdfiles/crcompct.pdf>.

⁴ 43 U.S.C. §§ 617-617v; available online at <http://www.usbr.gov/lc/region/pao/pdfiles/bcpact.pdf>.

The BCPA, authorizing construction and operation of Hoover Dam, contemplated storage of all available flows from upstream in the basin for use under contract in the Lower Basin. It allowed ratification of the 1922 Treaty by only six states (Arizona had refused to sign) so long as California agreed to limit its consumptive use to 4.4 maf/year. It authorized the Secretary of the Interior to enter into contracts for the use of water and power to help repay the costs of project construction.

C. The 1944 Treaty with Mexico (1944 Treaty)⁵

The 1944 Treaty is concerned with deliveries of water from the Colorado River for use in Mexico. The U.S. has interpreted Article III (c) of the Colorado River Compact⁶ to require the Upper Basin to make available at Lee Ferry 750,000 acre-feet annually to meet the treaty obligation to deliver 1.5 maf/year to Mexico.⁷

D. The 1948 Upper Colorado River Compact (1948 Compact)⁸

The 1948 Compact is concerned primarily with allocating the Upper Basin's share of basin water established under Article III (a) of the 1922 Compact among the Upper Division states. It also addresses the means by which the Upper Division states will reduce existing uses if necessary to meet the 10-year flow obligation at Lee Ferry.

E. The Colorado River Storage Project Act (1956 Storage Act)⁹

The 1956 Storage Act, among other things, authorized construction, operation, and maintenance of Glen Canyon Dam (and three other Project dams in the Upper Basin) for the purposes of "regulating the flow of the Colorado River, storing water for beneficial consumptive

⁵ Available online at <http://www.usbr.gov/lc/region/g1000/pdffiles/mextrety.pdf>.

⁶ Article III (c) of the Colorado River Compact provides: "If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of any waters of the Colorado River System, such waters shall be supplied first from the waters which are surplus over and above the aggregate of the quantities specified in paragraphs (a) and (b); and if such surplus shall prove insufficient for this purpose, then, the burden of such deficiency shall be equally borne by the Upper Basin and the Lower Basin, and whenever necessary the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the deficiency so recognized in addition to that provided in paragraph (d)."

⁷ This obligation is included in Section 602 (b)(1) of the Colorado River Basin Project Act and in the Long Range Operating Criteria implementing this provision.

⁸ Available online at <http://www.usbr.gov/lc/region/g1000/pdffiles/ucbsnact.pdf>.

⁹ Available online at <http://www.usbr.gov/lc/region/g1000/pdffiles/crspuc.pdf>.

use, making it possible for the States of the Upper Basin to utilize, consistently with the provisions of the Colorado River Compact, the apportionments made to and among them in the Colorado River Compact and the Upper Colorado River Basin Compact, respectively, providing for the reclamation of arid and semiarid land, for the control of floods, and for the generation of hydroelectric power, as an incident of the foregoing purposes,”

F. Arizona v. California¹⁰ (1963)

Perhaps the most relevant aspect of this decision for this paper was the Court’s decision to award 7.5 maf of annual consumptive use of main stream Colorado River water to Arizona (2.8 maf), California (4.4 maf), and Nevada (0.3 maf), based on an interpretation of the Boulder Canyon Project Act.¹¹ The 1964 Decree empowered the Secretary to determine whether there was sufficient water available for release from Hoover Dam and other dams on the Colorado River in the Lower Basin to permit consumptive use of 7.5 maf in Arizona, California, and Nevada.¹²

G. The Colorado River Basin Project Act (1968 Project Act)¹³

¹⁰ 373 U.S. 546 (1963).

¹¹ For a discussion, *see* MacDonnell, “Arizona v. California Revisited,” 52 NAT. RES. J. 332 (2012).

¹² Section II. B of the Decree provides:

(1) If sufficient mainstream water is available for release, as determined by the Secretary of the Interior, to satisfy 7,500,000 acre-feet of annual consumptive use in the aforesaid three states, then of such 7,500,000 acre feet of consumptive use, there shall be apportioned 2,800,000 acre-feet for use in Arizona, 4,400,000 acre-feet for use in California, and 300,000 acre-feet for use in Nevada;

(2) If sufficient mainstream water is available for release, as determined by the Secretary of Interior to satisfy annual consumptive use in the aforesaid states in excess of 7,500,000 acre feet, such excess consumptive use is surplus, and 50% thereof shall be apportioned for use in Arizona and 50% for use in California; provided, however, that if the United States so contracts with Nevada, then 46% of such surplus shall be apportioned for use in Arizona and 4% for use in Nevada;

(3) If insufficient mainstream water is available for release, as determined by the Secretary of the Interior, to satisfy annual consumptive use of 7,500,000 acre feet in the aforesaid three states, then the Secretary of the Interior, after providing for satisfaction of present perfected rights in the order of their priority dates without regard to state lines and after consultation with the parties to major delivery contracts and such representatives as the respective states may designate, may apportion the amount remaining available for consumptive use in such manner as is consistent with the Boulder Canyon Project Act as interpreted by the opinion of this Court herein, and with other applicable federal statutes, but in no event shall more than 4,400,000 acre feet be apportioned for use in California including all present perfected rights;

Arizona v. California, 376 U.S. 340, 342 (1964).

¹³ Public Law 90-537, available online at <http://www.usbr.gov/lc/region/g1000/pdffiles/crbproj.pdf>.

The primary purpose of the 1968 Project Act was to authorize construction of the Central Arizona Project. It also authorized construction of several small Reclamation projects in the Upper Basin.

Section 602 (b) of this Act directed the Secretary of the Interior to propose criteria for the “coordinated long-range operation of the reservoirs constructed and operated under the authority of the Colorado River Storage Project Act, the Boulder Canyon Project Act, and the Boulder Canyon Project Adjustment Act.” This provision continues:

The criteria shall make provision for the storage of water in storage units of the Colorado River storage project and releases of water from Lake Powell in the following listed order of priority:

(1) releases to supply one-half the deficiency described in article III (c) of the Colorado River Compact, if any such deficiency exists and is chargeable to the States of the Upper Division, but in any event such releases, if any, shall not be required in any year that the Secretary makes the determination and issues the proclamation specified in section 202 of this Act;

(2) releases to comply with article III (d) of the Colorado River Compact, less such quantities of water delivered into the Colorado River below Lee Ferry to the credit of the States of the Upper Division from other sources; and

(3) storage of water not required for the releases specified in clauses (1) and (2) of this subsection to the extent that the Secretary, after consultation with the Upper Colorado River Commission and representatives of the three Lower Division States and taking into consideration all relevant factors (including, but not limited to, historic stream-flows, the most critical period of record, and probabilities of water supply), shall find this to be reasonably necessary to assure deliveries under clauses (1) and (2) without impairment of annual consumptive uses in the upper basin pursuant to the Colorado River Compact: Provided, That water not so required to be stored shall be released from Lake Powell: (i) to the extent it can be reasonably applied in the States of the Lower Division to the uses specified in article III (e) of the Colorado River Compact, but no such releases shall be made when the active storage in Lake Powell is less than the active storage in Lake Mead, (ii) to maintain, as nearly as practicable, active storage in Lake Mead equal to the active storage in Lake Powell, and (iii) to avoid anticipated spills from Lake Powell.

Thus this provision identifies purposes for which water is to be released from Lake Powell and the priority of such releases that the Secretary is to include in the operating criteria. After review and comment by the basin state governors and other entities, the Secretary is to adopt criteria and publish them in the Federal Register.

H. Long-Range Operating Criteria (LROC)¹⁴

Adopted in 1970, the LROC address first the Upper Basin reservoirs authorized under the 1956 Storage Act. In an annual plan of operations to be made available on January 1st of each year, the Secretary is to determine the quantity of water that is to be in storage in these reservoirs on September 30th to satisfy the requirements of Section 602 (a) of the 1968 act (the amount reasonably necessary to assure deliveries under clauses (1) and (2) of Section 602 (a) without impairment of annual consumptive uses in the upper basin.) If that amount is projected to be less than the amount required under Section 602 (a) or if projected storage in Powell on September 30th will be less than projected storage in Mead, releases from Glen Canyon are to be no more than the “minimum” objective of 8.23 maf during that water year. If Upper Basin reservoir storage is projected to be more on September 30th than the amount considered necessary by the Secretary under Section 602 (a), then releases may be greater than 8.23 maf for the year. There must be uses for this water in the Lower Basin, and such releases cannot be made if storage amounts in Powell are less than in Mead. Another objective for releases more than 8.23 maf annually is to maintain storage in Mead approximately equal to that in Powell.

I. Grand Canyon Protection Act of 1992 (Protection Act)¹⁵

The Protection Act directed the Secretary of the Interior to operate Glen Canyon Dam to “protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established, including, but not limited to natural and cultural resources and visitor use.”¹⁶ The Secretary was to adopt operating criteria for Glen Canyon, developed using NEPA’s environmental impact statement process.¹⁷ These criteria govern daily operations of the dam and operate consistently with the LROC.

¹⁴ Available online at <http://www.usbr.gov/lc/region/g1000/pdfiles/opcritter.pdf>.

¹⁵ TITLE XVIII, RECLAMATION PROJECTS AUTHORIZATION AND ADJUSTMENT ACT OF 1992, Pub. L. 102-575, Oct. 30, 1992, 106 Stat. 4669, available online at <http://www.usbr.gov/uc/legal/gcpa1992.html>.

¹⁶ Section 1802

¹⁷ Section 1804

J. Interim Guidelines for the Operation of Lake Powell and Lake Mead (Interim Guidelines)¹⁸

In 2007, the Secretary of the Interior adopted these Interim Guidelines primarily to govern Lake Mead operations when storage levels drop below elevation 1,075 feet—triggering a shortage condition under which there would not be enough water available to enable annual consumptive use of 7.5 maf in the Lower Basin.¹⁹ In addition, in section 6 the guidelines govern “coordinated” operations of Powell and Mead. Reclamation conducts what is called the 24-month computerized study to project water elevations in both reservoirs. If the projected January 1 elevation levels in Powell are above so-called “equalization” levels set out in a table²⁰ (beginning at 3,636 feet in 2008 and gradually increasing to 3,666 feet in 2026), then Reclamation will make releases from Powell in excess of 8.23 maf until the storage levels of the two reservoirs equalize or certain elevation levels are reached (the “equalization tier”). If the projected January 1 level is below the table value but the storage elevation in Powell is above 3,575 feet (9.52 maf of active storage), then there are several operational options that could involve releases from Powell of from 7.0 to 9.0 maf (“upper elevation balancing tier”). If the projected storage elevation in Powell on January 1st is below 3,575 feet, then releases are either 7.48 maf or 8.23 maf dependent upon the projected elevation of Lake Mead (“mid-elevation balancing tier”). If Powell’s January elevation is projected to be less than 3,525 feet (5.93 maf of active storage), then Reclamation is to make releases of between 7.0 and 9.5 maf to “balance” the amounts in the two reservoirs (“low-elevation balancing tier”).

The guidelines state: “Coordinated operation of Lake Powell and Lake Mead as described herein will be presumed to be consistent with the Section 602(a) storage requirement contained in the Colorado River Basin Project Act.”

II. Potential Legal Issues for FMF

A. Introduction

¹⁸ Available online at <http://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>.

¹⁹ The Guidelines also address allocation of unused basic apportionment water Under Article II(B)(6), intentionally created surplus, developed shortage supply, and implementation of California’s Colorado River plan.

²⁰ ROD, Guidelines at 51.

Under the FMF approach, water coming from the Upper Basin would be passed through Glen Canyon Dam so long as there is storage space available in Lake Mead. Flows passing Lee Ferry would be measured to ensure that the 75 maf requirement over consecutive ten-year periods is met. Releases from Lake Mead would be managed to meet the Mexican Treaty delivery obligation and to make available sufficient water to enable consumptive use of 7.5 maf in Arizona, California, and Nevada when feasible. It would be necessary to change the operating rules for Lake Mead to account for the higher levels of storage than would otherwise exist. There would be less ability to operate the hydroelectric power facilities at Glen Canyon to meet peaking power demands and perhaps even to effectively generate electricity in some periods.

Based on these assumptions the potential legal issues are the Lee Ferry flow obligation under the 1922 Compact, the provisions in Section 602 of the 1968 Project Act, the Long-Range Operating Criteria, the Interim Guidelines, and Minute 319 to the Mexico Treaty. Each of these issues is discussed.

B. Article III (d) of the 1922 Compact

Arguably, there is an increased risk the 75 maf flow requirement over running 10-year periods (75/10) might not be met in some years under the FMF approach. Storage in Lake Powell is used to ensure that at least 8.23 maf passes Lee Ferry each year.²¹ Without that storage to even out high and low flow years in the Upper Basin, it is possible during periods of prolonged drought in the Upper Basin the 75/10 requirement will not be met. Under the Compact, the Upper Division states are obligated to reduce consumptive uses as necessary to enable sufficient water to reach Lee Ferry to bring the 10-year total to 75 maf.

The Colorado River Basin Supply and Demand Study modeled the probability of Lee Ferry flow deficits under several different scenarios.²² This analysis found the percent of “traces”²³ with a deficit begins to increase markedly after 2020; by 2060 deficits appear in from

²¹ It is assumed the Paria River, entering the Colorado just above the Lee Ferry dividing point, contributes the other 20,000 acre-feet annually.

²² Bureau of Reclamation, Colorado River Basin Water Supply and Demand Study (2012), Technical Report G – System Reliability Analysis and Evaluation of Options and Strategies, at G-19-20, 29.

²³ “A trace is a single simulation of the study period (2012-2060). To elaborate a bit, there are 6 demand scenarios, 4 supply scenarios and 2 reservoir operational policies for a total of 48 scenarios. However, for each of the supply scenarios, there are many “realizations” of the next 50 years, thus producing a large number of traces

2 to 25 % of the traces. The potential size of the deficits ranges from 500,000 af to 3.5 maf. It is not clear there would be more curtailments under a FMF operating regime than under the existing regime, but there would certainly be great concern about this possibility. If the basin states agree there would be more benefits under the FMF approach, there may be opportunities to put in place measures that would reduce the likelihood of a 75/10 shortfall such as using an accounting system to smooth out the annual variability of flows and even a relaxation of the requirement under certain circumstances.²⁴

It should be remembered that at the time the Compact was negotiated, the drafters assumed only the existence of Lake Mead. While the potential for a high dam at Glen Canyon was recognized, no one expressed the belief that such a dam was necessary to meet the 75/10 obligation. For most of its existence, Glen Canyon has been operated to ensure the availability of “surplus” conditions in the Lower Basin so the mainstream states could use as much water as there was demand for. As a result consumptive uses in California reached approximately 5.3 maf, nearly 1 maf more than its basic apportionment. The U.S. Supreme Court in *Arizona v. California* used a strained interpretation of the Boulder Canyon Project Act to decide the three mainstream states held the right to annually consume 7.5 maf from the Colorado River itself, without accounting either for uses from the tributaries or for reservoir evaporation and river losses. Arizona got the Central Arizona Project despite widespread recognition there wasn’t enough water in the Lower Basin apportionment for its supply. In short, depletions of water in the Lower Basin expanded well beyond that contemplated under the 1922 Compact and probably beyond the capacity of the basin water supply to sustain.

To return and keep basin water uses within the basin’s reliable water supply it may well be necessary to cap existing depletions in the Lower Basin and begin their gradual reduction while also limiting increased consumption in the Upper Basin.²⁵ As part of the negotiations that would be necessary to achieve such a substantial change, the Lee Ferry flow requirement

when all scenarios are considered.” Personal Communication, Kenneth Nowak, Bureau of Reclamation, April 29, 2013.

²⁴ Presumably, such a relaxation would have to be part of a negotiated agreement containing benefits for the Lower Basin.

²⁵ For one such proposal, see MacDonnell, *The Disappearing Colorado River*, WESTERN ECONOMICS FORUM 1-6 (Fall 2010).

(including water for the Mexico Treaty obligation) is likely to get substantial attention. If, as part of this process, the FMF proposal turns out to have important benefits it seems likely the Lee Ferry requirement can be addressed.

In any event, Article III (d) does not preclude a FMF approach. It is simply one of the considerations that must be taken into account.

C. Section 602 of the 1968 Project Act

The provisions in this section resulted from lengthy negotiations among representatives from the seven basin states and the U.S. A major concession from the Upper Basin was agreement to allow annual releases of 750,000 acre-feet to help meet the Mexico Treaty obligation while reserving the right to contest that the Upper Basin has any such obligation. In turn the Upper Basin sought to protect sufficient storage in Powell to essentially guarantee meeting its 75 /10 year flow obligation at Lee Ferry as consumptive uses in the Upper Basin increased. The Lower Basin got the security that at least 8.25 maf of water would pass into the Lower Basin each year—more when storage in Powell was high. The Lower Basin also obtained the significant benefit of “equalization”—that storage amounts in Lake Mead would be maintained “as nearly as practicable” to the storage amounts in Lake Powell. As clarified in Senate Report 408 (1967), however, equalization was applicable only in times of “excess” water and not when no such excess is available.²⁶

There was much discussion of the basin’s reliable water supply during consideration of authorization of the Central Arizona Project. The Upper Division states commissioned a study by Tipton and Kalmbach in 1965 that concluded the availability of water for diversion by the CAP depended on use of water apportioned to the Upper Basin under the 1922 Compact—that is, sufficient water would only be available if the Upper Basin states did not consumptively use water to which they were entitled.²⁷ Even Bureau of Reclamation studies showed a shortfall of water for the CAP over time as consumptive uses in the Upper Basin increased.

²⁶ Senate Report 408 (1967) at p. 64.

²⁷ Tipton and Kalmbach, Water Supplies of the Colorado River, Prepared for the Upper Colorado River Commission (July 1965).

Congressional agreement to authorize the CAP resulted in significant part from several assumptions about expected improvements to basin water supply that have not occurred: first, the legislation authorized studies of ways to “augment” the water supply by importing water from other locations; second, it included an apparent commitment by the U.S. to find other water to meet the 1.5 maf annual delivery obligation to Mexico; and third, it included “salvage” provisions that were expected to increase the basin’s usable water supply by 680,000 acre-feet.

Indeed, just as expected, there have not been surplus conditions in the Lower Basin since 2005. To meet the Mexico delivery obligation, cover evaporation and other losses, and still deliver enough water to enable 7.5 maf of annual consumptive use of mainstream water in Arizona, California, and Nevada it has been necessary to draw down both Mead and Powell to record low levels. Reservoir operations are now managed under the interim guidelines, a negotiated agreement among the states and with the U.S. that dramatically alters the historical manner of operation of these reservoirs.

The terms of Section 602 (a) represent a statement of priorities for uses of Colorado River mainstream water: meeting the Mexico Treaty obligation first, Lee Ferry flows to support consumptive uses from the mainstream in the Lower Basin second, and consumptive uses in the Upper Basin third. The remainder of this provision (those terms following the word “Provided”) comes into play only to the extent there is water available beyond that necessary to meet these priorities. Consequently, FMF must be implemented in a manner that follows those priorities and that can also meet the conditions under the proviso when applicable.

Under FMF, it would be necessary to use accounting procedures to track flows at Lee Ferry regarded as helping to meet the Treaty obligation and flows applying to meet the 75/10 requirement. So long as these obligations are satisfied it would seem the requirements of Section 602 (a) also are satisfied. It seems likely that just as interim guidelines include a presumption of consistency with Section 602 (a), a similar statement could be included in an agreement implementing FMF.

D. Long-Range Operating Criteria (LROC)

A FMF strategy would be inconsistent with the existing LROC, which are predicated on maintaining substantial storage in Powell and using that storage to ensure a “minimum” release

of 8.23 maf/annually. Adoption of a FMF approach would require revision of the LROC, something that is explicitly within the authority of the Secretary of the Interior. Adoption of a FMF policy would almost certainly depend on agreement among the states and with the U.S. Assuming such agreement could be reached, there would be little difficulty in making the necessary changes in the LROC.

Revised LROC would change operation of Lake Powell to allow a pass through of water to Lake Mead so long as there was sufficient available storage space. Releases from Mead average about 9.5 to 10 maf/year. Inflows from the Little Colorado and the Virgin River restore some of that water, but most comes from the Upper Basin. Presumably the objective of joint reservoir operation is to keep Mead as full as possible without risk of flood releases while only retaining in Powell water that cannot be safely stored in Mead.

E. Interim Guidelines

A FMF strategy is inconsistent with the Interim Guidelines, which rely heavily on releases from Powell to keep Mead above levels that would require declaration of shortage conditions in the Lower Basin. In a sense, however, the Interim Guidelines help make the case for a FMF approach. Rather than the complexities of managing two reservoirs as if they are a single source of supply with multiple tiers triggering different releases, the FMF approach would emphasize managing storage in a single reservoir—Mead. Storage in Powell would serve primarily as insurance for unexpected events.

The guidelines would need to be changed or eliminated, a matter entirely within the authority of the Secretary of the Interior. Again, any such change would depend on agreement of all the basin states and the U.S. Assuming such agreement could be reached, there should be no legal problems with revising the guidelines.

F. Minute 319 of the Mexico Treaty

Under the treaty with Mexico, the U.S. is obligated to deliver 1.5 maf/year to the international border. The treaty also contains provisions under which Mexico is to receive additional water and provisions under which it may receive less than 1.5 maf/year. While the U.S. moved ahead to clarify circumstances under which the Lower Division states of Arizona,

California, and Nevada could receive surplus water and, more recently, how they would share shortages, Mexico was not included in these decisions. That oversight was remedied, at least on a temporary basis, with the negotiation of Minute 319.²⁸ Among other things, Minute 319 defines elevation storage levels in Lake Mead at which Mexico would receive additional water and elevation levels at which Mexico would receive less water. In addition, Mexico is able to store certain amounts of unused water in Lake Mead (called “Intentionally Created Mexican Allocation”) and obtain that water through releases from Lake Mead at a later time. By its own terms this Minute expires on December 31, 2017 and is intended to be replaced by a more comprehensive Minute that would extend through the end of 2026, the time at which the Interim Guidelines also sunset. As with the Interim Guidelines, a FMF approach would require changes to the terms in Minute 319 to reflect different elevation storage levels in Lake Mead. And the storage of water for Mexico in Lake Mead would have the effect of reducing the amount of water that could be passed through Glen Canyon Dam for storage in Mead. Again, however, Minute 319 is only a temporary agreement, intended to be replaced by the end of 2017. Changes resulting from a FMF approach could be readily incorporated into the revised Minute.

G. Other Legal Considerations

No doubt there are legally authorized uses of Glen Canyon Dam and Lake Powell that would be affected by a FMF policy. For example, electricity generation at the Glen Canyon power plant would likely be affected. It may be necessary to find replacement power to offset reductions in power availability. Commercial recreational uses of Lake Powell under contract with the U.S. may also be affected. There may be liability associated with changes in reservoir storage that could not be otherwise offset. While these are issues that would need to be addressed to implement a FMF strategy, they in no way bar such an action. The use of Reclamation facilities for power generation and recreation are always secondary to their use for water supply. Should the decision be made that a FMF approach would improve water supply, these secondary uses would necessarily have to be adjusted.

III. Conclusion

²⁸ Available online at http://www.ibwc.state.gov/Files/Minutes/Minute_319.pdf.

A. The Fill Mead First Proposal is not precluded by any Federal or State statutes.

While there will likely be objections to a FMF approach because of concerns it would increase the possibility that flows at Lee Ferry will not total 75 maf during every consecutive 10-year period, that possibility exists as well under the existing operating approach.²⁹ Because the consequence of total flows not meeting this Compact requirement is that existing consumptive uses in the Upper Basin will have to be reduced, the Upper Division states are understandably concerned that the Lee Ferry flow obligation be met. Studies are needed to model the potential effects of a FMF on meeting the 75/10 requirement. Should they indicate more years in which this requirement will not be met than under existing operations, the Upper Division states are likely to oppose FMF unless there are other overriding benefits and ways to mitigate the effects of curtailments are found. So while there may be real issues of potentially increased risk to the Upper Basin associated with the FMF approach there is no absolute legal barrier to its adoption.

Similarly, while Section 602 of the 1968 Project Act contemplated using Lake Powell to regulate flows into the Lower Basin there is nothing in the statutory language that absolutely precludes operations contemplated under the FMF approach. Its effect is merely to establish priorities for operation of Reclamation facilities: meet the Mexico Treaty obligation first; supply water to meet Lower Basin uses second; and, meet Upper Basin demands third. So long as these priorities are met, there is compliance with Section 602. The FMF proposal involves no change in these priorities. The provisos in the Section apply only in conditions when there is water availability in the basin beyond that required to meet these priorities, a condition that does not seem likely to exist in the foreseeable future, but that would presumably mean storage levels in Lake Powell will be high enough to allow compliance with the provisos.

B. The Fill Mead First Proposal is inconsistent with the existing LROC, the Interim Guidelines, and Minute 319.

The FMF proposal is inconsistent with existing guidance governing operation of Lake Mead and Lake Powell. While the Guidelines would go away under FMF, the LROC would need to be substantially revised. Neither is adopted as a formal rule under the Administrative

²⁹ Bureau of Reclamation, Colorado River Basin Water Supply and Demand Study (2012).

Procedures Act. They apply only to actions of Department of the Interior and can be changed by the Department. The LROC are required under Section 602 of the Project Act. But they are subject to review and revision at least every five years. While any such revision requires consultation with the basin states and other affected interests,³⁰ their adoption is entirely within the control of the Secretary of the Interior. The same is true of the Interim Guidelines, which are intended to sunset at the end of 2026.³¹ Indeed, adoption of the Interim Guidelines is itself evidence of the ability of the Secretary to make changes in the operation of Powell and Mead.

Minute 319 represents a bilateral agreement between the U.S. and Mexico. It expires at the end of 2017 and is intended to be replaced with a more comprehensive agreement. Development of a new Minute represents a clear opportunity to make changes necessary to incorporate a FMF approach. It does mean, however, that Mexico also will need to agree to the adoption of a FMF approach.

C. The Basin States and the U.S. will have to decide the Fill Mead First Proposal is desirable to enable necessary changes in the LROC and the Interim Guidelines.

Interest in making a change to a FMF operating regime depends on an ultimate determination by affected interests, particularly those representing major water users in the basin, of the benefits of such an approach. The Basin Study makes clear the Lower Basin may be facing shortages sooner than previously expected. Would FMF reduce the likelihood of such shortages? Unless and until there is further analysis and discussion enabling full consideration of the benefits and costs, nothing is likely to change.

At present, the basin states seem uncertain about what to do. They are banking on there being enough water to maintain the status quo (and even allow increased consumptive use), an unlikely future according to most analyses. Some still hold out hopes for enhanced water supplies from some outside source(s). All states are planning on increasing their use of basin

³⁰ The Grand Canyon Protection Act requires consultation with other agencies within the Department of the Interior, tribes, electric power producers, conservation groups, and other interests. Section 1804.

³¹ The Guidelines in Section 7 B. 1 require the Secretary to consult with the basin states before making any modifications: “The Secretary shall first consult with all the Basin States before making any substantive modification to these Guidelines.”

water to meet what they know will be increasing demands from users in their state located within the basin or within areas to which basin water currently is exported.

FMF appears to offer some promise for increasing the efficiency with which we manage and use a declining water supply. If, in fact, further analysis demonstrates this is the case, FMF may well become a piece of the answer to how we bring basin water uses into line with reliable basin water supplies. The questions about its feasibility are not essentially legal but hydrologic and political. Its political feasibility will depend on whether reservoir operations under a FMF approach enhance the water use goals of the basin states.