SUBMIT OPTION SUBMITTAL FORM BY:
1. EMAIL TO: COLORADORIVERBASINSTUDY@USBR.GOV
2. U.S. MAIL TO: BUREAU OF RECLAMATION, ATTENTION MS. PAM ADAMS, LC-2721, P.O. BOX 61470, BOULDER CITY, NV 89006-1470
3. FACSIMILE TO: 702-293-8418

# Option Submittal Form

**Contact Information (optional):** ☐ **Keep my contact information private.**

Contact Name: _____ Title: _____

Affiliation: _____

Address: _____

Telephone: E-mail Address:

Date Option Submitted: 1/27/2012

**Option Name:**

Lower Basin Water Bank

**Description of Option:**

This proposal would establish a water bank in which all water in the Lower Basin mainstem, plus water in agreed-upon tributaries outside the Gila River system, would be available for intra-state or interstate sale or lease of entitlements to water between willing buyers and sellers. The transferred amount of water would be charged to the allocation of the state in which the seller has the right to use the water. The purpose of the water bank would be to provide a means for willing Lower Basin water users to temporarily or permanently re-allocate water among themselves as a tool for coping with anticipated chronic shortages caused by increasing demand and decreasing flows over the coming decades.

The water bank would be established via a two-part process. First, negotiations including representatives of the states, the Bureau of Reclamation, and the various Tribes would be convened to establish the basic policies governing the bank. These would include, at a minimum:

- Which (if any) tributaries are included in the bank in addition to the mainstem
- Uses for which water may be transferred
- Basic rules for accounting for water (evaporation loss, etc.)
- How to mitigate for third-party impacts (e.g., impacts to rural economies)
- Any other general restrictions on transfers: e.g., maximum term of leases, any cap on total transfers, any maximum price restrictions, etc.
- The makeup of a governing body to oversee the operation of the bank and set more-specific rules governing transactions

Once the governmental representatives agreed on a proposed package of basic policies, the proposal would be submitted to the stakeholder group (see Option #1, above), for comment

and proposed revision. The package would go to the states and Reclamation for final approval.

Second, after the general policies were approved, a governing body would be appointed to adopt specific rules governing water transactions and oversee the operation of the bank. Its membership would include federal, state, and tribal representatives, as well as representatives of major affected stakeholders including environmental groups, farm workers, and major water users. The actual administration of the bank, including approval of transactions and accounting for delivered water would be handled by the Bureau of Reclamation, which, as water master for the Lower Basin, is already responsible for managing the reservoirs and delivery contracts.

**Location:** Describe location(s) where option could be implemented and other areas that the option would affect, if applicable. Attach a map, if applicable.

The Lower Basin.

**Quantity and Timing:** Roughly quantify the range of the potential amount of water that the option could provide over the next 50 years and in what timeframe that amount could be available. If option could be implemented in phases, include quantity estimates associated with each phase. If known, specify any important seasonal (e.g., more water could be available in winter) and/or frequency (e.g., more water could likely be available during above-average hydrologic years) considerations. If known, describe any key assumptions made in order to quantify the potential amount.

This option would not add new water to the system; instead, it would equitably re-allocate water within the system.

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# Additional Information

**Technical Feasibility:** Describe the maturity and feasibility of the concept/technology being proposed, and what research and/or technological development might first be needed.

This option is feasible. Although there would be complex issues to resolve at a rulemaking and transactional level – e.g., documenting the water available for transfer, calculating evaporation and transmission loss, etc. – these issues have been addressed in other contexts such as ICS.

**Costs:** Provide cost and funding information, if available, including capital, operations, maintenance, repair, replacement, and any other costs and sources of funds (e.g., public, private, or both public and private). Identify what is and is not included in the provided cost numbers and provide references used for cost justification. Methodologies for calculating unit costs (e.g., $/acre-foot or $/million gallons) vary widely; therefore, do not provide unit costs without also providing the assumed capital and annual costs for the option, and the methodology used to calculate unit costs.

This option would have administrative costs associated with the governing bodies that establish the bank and oversee its implementation, as well as with the day-to-day administration of the bank by the Bureau. These costs would likely be borne by the respective agencies. In addition, costs specific to each transaction would be borne by the parties to the transaction.

**Permitting:** List the permits and/or approvals required and status of any permits and/or approvals received.

This option would require one or more inter-governmental agreements among the seven states and the Bureau.

**Legal / Public Policy Considerations:** Describe legal/public policy considerations associated with the option. Describe any agreements necessary for implementation and any potential water rights issues, if known.

A major public policy consideration would be how to mitigate for third-party impacts such as economic loss to rural farm communities that depend on water proposed for transfer to new use. The stakeholder governance body proposed concurrently by Carpe Diem West could be a significant source of input to help address this and other policy issues in a way acceptable to a broad range of affected interests.

**Implementation Risk / Uncertainty:** Describe any aspects of the option that involves risk or uncertainty related to implementing the option.

The water bank would involve uncertainty to the extent that it cannot be predicted what transactions will be proposed by private parties; thus, it cannot be forecasted how much water will be moved from and from what locations at what times and for what uses. Decision makers could place some sideboards on this uncertainty via rules limiting the types and perhaps total quantity of allowable transfers. Any such rules could be modified on an adaptive basis as more experience is gained in operating the bank.

**Reliability:** Describe the anticipated reliability of the option and any known risks to supply or demand, such as: drought risk, water contamination risk, risk of infrastructure failure, etc.

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| N/A |

**Water Quality:** Identify key water quality implications (salinity and other constituents) associated with the option in all of the locations the option may affect.

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| N/A |

**Energy Needs:** Describe, and quantify if known, the energy needs associated with the option. Include any energy required to obtain, treat, and deliver the water to the defined location at the defined quality.

| Energy Required | Source(s) of Energy |
|---|---|
| N/A | |
| | |

**Hydroelectric Energy Generation:** Describe, and quantify if known, any anticipated increases or decreases in hydroelectric energy generation as a result of the option.

| Location of Generation | Impact to Generation |
|---|---|
| N/A | |
| | |
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**Recreation:** Describe any anticipated positive or negative effects on recreation.

| Location(s) | Anticipate Benefits or Impacts |
|---|---|
| N/A | |
| | |
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**Environment:** Describe any anticipated positive or negative effects on ecosystems within or outside of the Colorado River Basin.

| Location(s) | Anticipated Benefits or Impacts |
|---|---|
| N/A | |
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**Socioeconomics:** Describe anticipated positive or negative socioeconomic (social and economic factors) effects.

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| Water transfers can have significant socioeconomic impacts to communities whose economies have become dependent on water which is now being transferred elsewhere. This is especially the case with large-scale transfers from agricultural to urban use. These impacts could be limited by restrictions on allowable transfers, by imposing a tax on transactions to support a mitigation fund, or by some combination of these. Again, a stakeholder governance process could be an effective forum for |

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| developing acceptable means of addressing these issues. |

**Other Information:** Provide other information as appropriate, including potential secondary benefits or considerations. Attach supporting documentation or references, if applicable.

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