Option Submittal Form

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

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Date Option Submitted: 02/06/2012

Option Name:

Missouri River Reuse Project

Description of Option:

The Missouri River Reuse option is a diversion of up to 600,000 AFY of water from the Missouri River for reuse within the Missouri River Basin of Kansas and Colorado. Water would be diverted from the Missouri River only when flows to support navigation and municipal water diversions along the river from Leavenworth, Kansas to Saint Louis, Missouri, are not impaired.

1. Within Kansas, the water would be used to fill surface reservoirs and recharge depleted aquifers in the upper and lower Republican River Basins, Solomon River Basin, and Smoky-Hill/Saline River Basin as determined from assessment of need and feasibility by the Kansas State Water Office in cooperation with the Kansas Division of Water Resources, Army Corps of Engineers, and the States of Colorado and Nebraska. In particular, the water would be used for irrigation and municipal, commercial, and industrial use and to recharge the Ogallala aquifer in western Kansas. Each of these basins (including the Ogallala aquifer in northwest Kansas) is tributary to the Missouri River. The Ogallala aquifer discharges into the Republican River in northeast Colorado and northwest Kansas. Kansas may choose to construct new reservoirs or enlarge existing reservoirs for the project.

2. Along the Front Range of Colorado, the water (totaling 500 cfs or more as Colorado determines) would be used for municipal, commercial, and industrial use with return flows allocated for agricultural irrigation use within the South Platte River Basin (a tributary of the Missouri River). Some water could be used to recharge the bedrock aquifers of the Denver Basin. In eastern Colorado, some water could be used for irrigation and municipal use and to recharge the Ogallala aquifer. Water would likely be stored in Front Range reservoir such as Rueder-Hess, Carter, Barr, and Chatfield and in designated alluvial storage along the South Platte River. Colorado may choose to construct new reservoirs or enlarge existing reservoirs for the project.

More reservoirs for flood control and storage for floods dating back to 1995.
Some water may be available for use outside the Missouri River Basin, particularly that portion of the water in the Missouri River which is non-native (originating as transmountain diversions from the Colorado and Arkansas Rivers in Colorado and nontributary Denver Basin ground-water withdrawals). Some of this water could be directed to the Arkansas River in western and central Kansas and in eastern Colorado beginning near Colorado Springs. Some water could also be directed to the headwaters of the Colorado River Basin through pipelines and tunnels when there is great need to relieve drought in the basin provided the navigation and municipal supply flows in the Missouri River are plentiful and other water needs of western Kansas and eastern Colorado are being reasonably satisfied.

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 location of the Missouri River diversion point is in Leavenworth County, Kansas near the City of Leavenworth. The water would be treated and disinfected at a large treatment plant to be designed and constructed, as necessary, for subsequent conveyance and use. End-user treatment, such as water softening for municipal, commercial, and industrial use, is anticipated.

Conveyance of water across Kansas and eastern Colorado would be through single or parallel large-diameter pipelines located more or less adjacent to I-70. Infrastructure would include a series of high-capacity pumping stations (to be located, sized, and designed). The water conveyance infrastructure (pipeline and pumping stations) would be owned and operated by the Kansas Water Office in cooperation with the Corps of Engineers, Bureau of Reclamation, Kansas Division of Water Resources, Colorado Division of Water Resources, Colorado Water Conservation Board, and various public and private stakeholders. The diversion rights would owned by a Kansas entity.

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.

The project can be constructed and operated in affordable phases with 500 cfs being delivered to the Front Range by 2030 to meet forecasted water demands. Sooner would be better.

Very Important for Water Control 4 drought