

Missouri River Transfer Project to Mitigate Flooding and Protect the Six-State Ogallala-High Plains Regional Socio-Economic Viability.

Proposal

We request that Congress authorize and appropriate funds to mitigate billions of dollars in flood damage on the Missouri River, to create jobs, to ensure food security and to provide much needed water supplies in the Ogallala-High Plains Region. The funds will be used to update water transfer route feasibility already conceptually developed by previous studies and consider concepts for enlarging and extending the routes from the Missouri River south through Colorado, Kansas, Nebraska, New Mexico, Oklahoma, and Texas. This assessment should:

- 1. Estimate the amount of water available from flood water, seasonal water, other excess water and purchased water sources at flow levels above Missouri River navigation requirements based on such factors as the holding capacity of system source reservoirs.
- 2. Perform a comprehensive water demand analysis for agriculture (livestock and irrigation), food processing, municipal and other water user groups in the region.
- 3. Identify water transfer system components (reservoirs and conveyance systems) using updated GIS data, water demand forecasts and water availability. Develop conceptual-level alternatives, size of the transfer feature and capacity of the pumping systems.
- 4. Provide preliminary cost estimates for projected costs using 2020 base year costs. The projected costs include a breakout of construction related costs, anticipated annual recurring costs for maintenance and repair and energy costs.
- 5. Evaluate the legal and environmental constraints of constructing and operating the system that conflicts with existing state and federal laws related to surface water transfer between the states and environmental laws and constraints that would be encountered if a project of this scope is constructed.
- 6. Develop a stakeholder group of federal, state, local, and private partners with interests related to the project.

Upon successful completion of the study, we request Congress authorize and fund the Executive Branch to seek, organize, and lead cooperators to initiate, plan, and implement the water transfer project.

Background

The Missouri River watershed is the longest drainage basin in the U.S. and encompasses most of the central Great Plains. The Missouri River has a long history of severe and devastating flooding events. The Army Corps of Engineers and the Bureau of Reclamation developed plans to mitigate flooding on the Missouri River that became a major part of the Omnibus Flood Control Act of 1944. Even after implementation of this plan, the Missouri River has continued to set flooding records that caused several billion dollars in losses through multiple states as recently as 2019. Diverting Missouri River flood water, available seasonal water, other excess water or purchased water can be

a possible solution for mitigating flood damage and the depletion of the Ogallala – High Plains aquifer. As early as 1967, Beck and Associates proposed a transfer plan that would divert Missouri River water from near Fort Randall Reservoir in South Dakota to supply water along the Colorado-Kansas border into the Texas High Plains and into the Pecos River in New Mexico and finally into the Rio Grande River above Lake Amistad.

Depletion of the Ogallala – High Plains aquifer and the anticipated impacts of not meeting the regional water needs of the water user groups in the High Plains states include value-added losses, electric power purchase costs, job losses, tax losses on production and imports, water trucking costs, utility revenue losses, utility tax losses, consumer surplus losses for municipal water supplies, population decreases, and school enrollment losses. Approximately \$35 billon in crops are grown each year on the High Plains, one of the most fertile regions of the world, where the Ogallala – High Plains aquifer is the primary, and often the only, water source. According to USDA National Agriculture Statistics Service data, farmland in the region produces nearly one-fifth of the wheat, corn, and cotton as well as approximately one-half of the sorghum and cattle in the United States. In addition to agriculture, the aquifer supports all other user groups including municipal, manufacturing, mining, and steam-electric power. The aquifer continues to be the only water supply for most small communities and a primary water supply for larger communities on the High Plains. Groundwater withdrawals by these water user groups continue to outpace recharge, causing generally widespread depletion of the aquifer.

The Water Resources Development Act of 1976 authorized the Six-State High Plains-Ogallala Aquifer Regional Resources Study (High Plains Study) that was completed in 1982 to address the problem of depleting High Plains Ogallala aquifer water supplies. The U.S. Department of Commerce, in coordination with the U.S. Army Corps of Engineers and other federal, state, and private entities, examined the feasibility of various alternatives to provide adequate water supplies to "assure continued economic growth and vitality of the High Plains region." Among the five strategies included in the High Plains Study, one strategy evaluated construction of large-scale surface water transfer project alternatives from adjacent areas to restore irrigated acres.

In 2015 the Kansas Water office and the U.S. Army Corps of Engineers updated the High Plains Study for Alternative Route B (moving water to western Kansas). The 2015 update reveals that moving water to Kansas is technically feasible. The 2015 update also identified alternative ideas for water transfer systems, including ideas for moving water to the six states in the 1982 High Plains-Ogallala Study (TX, OK, KS, NE, CO, NM). Updating the 1982 study as proposed here would build on the past work and tell us if moving water to the High Plains is feasible, the systems needed to do it and estimated costs.

Sincerely,

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Steven D. Walthour, PG General Manager

Attachment

A New Water Resource Plan for the Great Plains – Beck and Associates 1967



Six-State High Plains Ogallala Aquifer Regional Resources Study - High Plains Associates 1982 (Alternate Routes A, B, C, D) Update of 1982 Six State High Plains Aquifer Study Alternate Route B– USACE 2015