



DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON, D.C. 20310-2600

REPLY TO
ATTENTION OF

JUL 30 2004

CEMP-SWD (1105-2-10a)

SUBJECT: White River Minimum Flow, Reallocation Study, Arkansas and Missouri

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on White River Minimum Flow, Reallocation Study, Arkansas and Missouri. It is accompanied by the report of the District Engineer. This report was prepared in final response to Section 374 of the Water Resources Development Act (WRDA) of 1999 and Section 304 of WRDA 2000. These authorities provide for potential reallocation of storage for five existing Corps reservoirs; Beaver Lake, Table Rock Lake, Bull Shoals Lake, Norfolk Lake and Greers Ferry Lake, all located in the White River Basin of Arkansas and Missouri. The reallocations would provide specific reservoir storage to make available minimum flows which would improve and sustain existing tail water trout fisheries. Section 374 of WRDA 1999 and Section 304 of WRDA 2000 authorize the reallocation of a specific number of feet of storage at each of the five reservoirs, however, the legislation does not specify the volume of storage to be reallocated or the elevation of such storage. Accordingly, these reports identified and evaluated various options to implement this reallocation.
2. The five lakes are multi-purpose reservoirs that were constructed between 1940 and 1970 and are operated under the White River Basin water management plan. This plan provides a comprehensive system of water control regulation which encompasses the entire White River Basin, incorporates all the basin projects and their many purposes, and provides seasonal flood control and hydropower releases based on the agricultural practices of the lower basin and other land uses downstream of the projects. The plan also addresses the needs of the downstream fishery by providing a mechanism to maintain cool water temperatures based on monitored and forecasted ambient air temperatures. It also provides a deviation procedure to respond to unforeseen and emergency conditions which either are not in the plan or for which the plan is singularly inadequate.
3. The reporting officer has not made a recommendation regarding Corps implementation of a reallocation alternative at this time; as such, National Environmental Policy Act (NEPA) analyses have not been completed. Prior to any Corps implementation, an implementation report and NEPA document would have to be completed and some refinements to the costs and benefits of various alternative plans may be made.

4. The authorizing legislation states that reallocation alternatives must be economically justified, technically sound, and environmentally acceptable. During this study phase, the Little Rock District identified and evaluated over 1,000 alternatives that reallocated storage from either the flood control pool, or the conservation pool, or both pools. The district report identifies a National Economic Development (NED) plan (the plan that would provide the greatest net economic benefits) for each reservoir, as well as other economically justified plans. The plans are also technically sound, and are considered environmentally acceptable. The environmental acceptability of the alternatives is based on quantitative and qualitative analyses conducted to date and professional judgment. A final determination of environmental acceptability would be made upon completion of the NEPA process and other environmental compliance.

5. The authorizing legislation provides that the report must determine whether modifications adversely affect other project purposes. Authorized project purposes include flood control, water supply, fish and wildlife, hydropower, and recreation. The district report finds that all plans, to varying degrees, would impact one or more of the existing and authorized project purposes. The most significantly affected project purpose would be hydropower. Most of the reallocation alternatives would adversely affect hydropower outputs, unless substantial additional capital investments were made in new power generating facilities at the reservoirs. The Federal power marketing agency for these reservoirs, Southwestern Power Administration (SWPA), makes yearly payments to the Federal treasury for the hydropower debt. A reduction in power output caused by the reallocation would not reduce the hydropower debt that SWPA would be required to cover in the sale of power to their customers. In addition, the Corps would not be responsible for the loss of benefits to the hydropower industry that would result from the reallocation, and absent a non-Federal payment for the value of reservoir storage, the Corps has no means to reduce or otherwise compensate for the loss to hydropower. If hydropower losses are not compensated, and if the Corps were to reallocate regardless of this, SWPA would have to reduce power sales to some customers and would likely raise their rates for sale of remaining power to account for the lost power production.

6. For all reallocation alternatives, recreation benefits for the tail water trout fisheries would increase. However, depending on the alternative, the existing warm water lake fisheries may exhibit minor benefits or minor adverse affects for the first few years. Regardless of the minimum flow reallocation, and after a few years, the lake fishery would be expected to adjust to the changed conditions and again exhibit the conditions of the current lake fisheries. These fisheries are now, and will continue to be largely influenced by water level management of the multipurpose reservoirs.

7. All identified reallocation alternatives would incur costs to the Federal government. These costs would be a result of the structural modifications of the reservoir facilities required to produce the specified minimum flows. In addition, there could be adverse impacts on the recovery of revenues to the U.S. Treasury from hydropower production and sales.

8. The specific cost to the Federal Government would depend on which alternative reallocation plan is implemented and the applicable cost-sharing. Specifically, the designation of the reallocation purpose as recreation, ecosystem restoration, or mitigation will determine the impact and magnitude of costs to the Federal government. In addition, such designation will impact the preferred implementation options and the categorization of the outputs. Some interested parties have proposed that the cost for the allocation be viewed as mitigation because the existing

reservoirs contributed to the degradation of warm water fisheries, and that the Corps should pay all costs associated with sustaining tail water trout fisheries. Classifying the reallocation as mitigation would result in allocation of the reallocation costs to all the project purposes and cost shared accordingly. Others have proposed that the reallocation should be treated as ecosystem restoration, and thus, cost shared 65 percent Federal and 35 percent non-Federal. However, the Corps position is that the five authorized reservoir projects were fully mitigated when constructed and the reallocations for the purpose of sustaining tail water trout fisheries represents project modification for the purpose of recreation. Recreation is cost shared 50 percent Federal and 50 percent non-Federal.

9. The Corps does have the authority to reallocate water at all five of the reservoirs. It is the Corps position that the primary purpose of the project would be to improve and sustain existing tail water trout fisheries, and the primary benefits that would be attained by the plan would be recreation. Based on existing law and Corps policy, the Corps could implement the reallocation with a willing non-Federal cost sharing sponsor in accordance with the cost-sharing for recreation as established by Section 103(c)(4) of WRDA 1986, 50 percent Federal and 50 percent non-Federal. In addition, under current Corps policies for reallocations of storage for recreation, the Corps would charge the recreation non-Federal sponsor for 50 percent of the updated costs of storage. With the income from the sale of storage, the Corps would credit SWPA for revenue losses. Absent assessment of charges for use of storage, the Corps would not have any means to compensate SWPA for the loss of hydropower and it is therefore anticipated that SWPA would have to reduce sales and raise its power rates to the power customers. As there would be implementation costs to the Federal government, appropriations in addition to the project's operation and maintenance budgets would be necessary to implement the reallocation project. To date, there have been no non-Federal sponsors that have agreed to cost share and participate in the implementation of the project in a manner consistent with Corps policy.

10. Other implementation scenarios that have been suggested by interested parties would require additional authorization and direction from Congress. Additional legislation would be needed to reduce the hydropower debt and the annual payment that SWPA makes to the Federal treasury by an amount equal to the annual loss of hydropower. This would eliminate or at least reduce the need for SWPA to increase their power rates as a result of the reallocation, but would not affect the potential for reductions in power sales. Additionally, further congressional direction and authorization would be needed to specify reallocation to a purpose other than recreation. The allocation of project costs could be based on a specific project purpose, or Congress could direct a specific cost-sharing percentage.

11. The district report makes no recommendation for any alternative plan or implementation option, nor further Federal actions regarding reallocation for minimum flows at the five Corps reservoirs. As such, NEPA coordination and public review have not been completed. However, throughout the reallocation study process, the Arkansas Game and Fish Commission (AGFC) and the Missouri Department of Conservation (MDC) have participated as project sponsors. SWPA, the U.S. Fish and Wildlife Service (USFWS), other Federal and state agencies, and the public have also participated in the reallocation study process. AGFC and SWPA have provided correspondence expressing their views regarding the district report. These letters are included in the district report. In summary, the AGFC fully supports the NED reallocation plans for all reservoirs in Arkansas, but they believe that the reallocation should be viewed as mitigation and

that the implementation costs should be 100 percent Federal. AGFC also supports the notion of crediting SWPA so that power rates are not increased. SWPA provides that of the 17 reservoirs that they market as a system, 57 percent of the total hydropower storage is located in those five White River projects. A loss of that water storage will negatively impact the reliability and marketability of the electricity. Any loss of electrical energy and capacity from the projects would have to be taken from current customers and could result in higher electrical rates. Power users have expressed that they do not want their power rates to increase as a result of the potential reallocations. SWPA has also provided alternative valuations of lost power benefits that have been included in the district's report. In some instances, use of the values provided by SWPA would result in different plans being economically justified. The U.S. Fish and Wildlife Service has expressed no objection to the implementation of the identified minimum flows reallocation alternatives and release scenarios. Full NEPA compliance and public review will be required if the Corps proceeds with implementation of a reallocation alternative for the White River Basin reservoirs.

12. I generally concur with the findings of the reporting officers. I find that the district report addresses the provisions of sections 374 of WRDA 1999 and 304 of WRDA 2000. I find that the reallocation alternatives identified in the district report generally conform with essential elements of the U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies, and that the alternatives are technically sound, economically justified, and environmentally acceptable, based on information known at this time. I find that the reallocation alternatives do impact other project purposes to varying degrees, and the alternatives would incur costs to the Federal government. In addition, no non-Federal sponsor has agreed to cost share and participate in the implementation of the project in a manner consistent with Corps policy. Accordingly, I do not recommend Corps implementation of a reallocation alternative at this time.

13. This letter report constitutes the final report of the Chief of Engineers as required by the authorizing legislation. The district will make their report available to interested parties. The recommendation contained herein reflects the information available at this time and current departmental policies governing formulation of individual projects. It does not reflect program and budgeting priorities inherent in the formulation of a national civil works construction program or the perspective of higher review levels within the executive branch.



CARL A. STROCK
Major General, U.S. Army
Chief of Engineers