Memorandum

To: Assistant Secretary - Land and Water Resources

From: Solicitor

Subject: Navajo Indian Irrigation Project (NIIP)

This memorandum is in response to your November 2, 1981, request for our views on several issues that have arisen concerning use of water on and operation of the federally constructed irrigation works on the Navajo Indian Irrigation Project, New Mexico (hereinafter NIIP). Specifically, you asked:

1) Do sections 615jj and 61511 of the NIIP Act, 43 U.S.C. § 61511 et seq., authorize use by the Navajos of project water delivered through works constructed solely for irrigation for purposes other than irrigation and:

2) Does depletion to the total Colorado River system water supply from NIIP define the limit on project water use, or is the 508,000 acre foot authorized diversion limit (regardless of depletion) stated in section 615jj of the NIIP Act the appropriate limit?

Background

The Navajo Indian Irrigation Project was authorized by Public Law 87-483, dated June 13, 1962. 43 U.S.C. §§ 61511 et seq. The project was specifically authorized to be constructed and operated to deliver up to 508,000 acre feet of water to irrigate approximately 110,630 acres of land on the Navajo Indian Reservation. The project was initially planned to operate as a gravity irrigation system with water to be delivered from Navajo Dam and Reservoir on the San Juan River in New Mexico, a tributary of the Colorado River, to irrigable lands on the reservation.
Waters used by NIIP are depletions to the Colorado River and, as such, must come from, and count against New Mexico’s entitlement to Colorado River water. 1/ Pursuant to Article III of the Upper Colorado River Basin Compact, New Mexico is entitled to 11.25 percent of the total quantity of water available for consumptive use each year by the Upper Basin states under the Colorado River Compact, after a deduction of not to exceed 50,000 acre feet of water per annum that is available for consumptive use in the state of Arizona. The resulting New Mexico entitlement equals 11.25 percent of 7,450,000 acre feet per annum, or a total of 830,000 acre feet per year. In calculating the water available for use on NIIP it was assumed in the project feasibility report that New Mexico would deplete its total allocation of 830,000 acre feet of Colorado River water annually. The feasibility report further estimated that depletion by NIIP from the river system at the time of project operation would be 252,000 acre feet per year.

NIIP was redesigned during 1972 and 1974 to be an all-sprinkler irrigation project rather than the initially contemplated gravity irrigation project. A report entitled “Navajo Indian Irrigation Project, New Mexico, All-Sprinkler Irrigation System” was published in 1974 which recommended an average annual diversion of 330,000 acre feet, with an estimated depletion of 236,000 acre feet from the Colorado River system, to irrigate by sprinkler the 110,630 acre authorized project.

Construction of the NIIP main canal has been completed. The canal was constructed with sufficient capacity to deliver only the peak irrigation demands associated with an annual irrigation diversion of 330,000 acre feet per year. However, water could be delivered through the canal as constructed during off-peak periods for purposes other than sprinkler irrigation.

Analysis

I. Navajo Right to Use Water for Other Than Irrigation Purposes

The Secretary may construct and operate reclamation projects only pursuant to congressional authorization and for the purposes

1/ The total water supply of the Colorado River system was allocated between the Upper and Lower Basins of the Colorado River by the Colorado River Compact, dated November 24, 1922. The states of the Upper Colorado River Basin, including New Mexico, allocated their share of the average annual flow of the River among themselves by the Upper Colorado River Basin Compact. Act of April 6, 1944, ch. 48, 63 Stat. 31. The Upper Basin States are entitled to use approximately 7,300,000 acre feet of Colorado River water annually under the Colorado River Compact.
specified thereby. 2/ Section 615jj of the WIIP Act, 43 U.S.C. 
subxa, which authorizes the construction of WIIP for the primary 
purpose of irrigation, 3/ provides in relevant part:

... the Secretary of the Interior is 
authorized to construct, operate and maintain 
the Navajo Indian irrigation project for the principal purpose of furnishing irrigation 
water to approximately one hundred and ten 
thousand six hundred and thirty acres of land, 
said project to have an average annual diver-
sion of five hundred and eighty thousand acre 
feet of water. ... (emphasis added).

The WIIP Act further provides in 43 U.S.C. § 61511 that:

In developing the Navajo Indian irrigation 
project, the Secretary is authorized to 
provide capacity for municipal and 
industrial water supplies or miscellaneous 
purposes over and above the diversion re-
quirements for irrigation stated in 
section 615jj of this title, but such 
additional capacity shall not be constructed 
and no appropriation of funds for such 
construction shall be made until contracts 
have been executed which, in the judgment 
of the Secretary, provide satisfactory 
assurance of repayment of all costs 
properly allocated to the purposes 
aforesaid with interest as provided by 
law. Pub. L. 87-483, § 4, June 13, 1962, 
76 Stat. 97. (emphasis added).

The project canal is currently sized only to deliver the amount 
of water required to be diverted to sprinkler irrigate the 
110,630 acre irrigation project authorized under section 615jj 
of the WIIP act. The fact of limited canal size is important 
to note because section 61511 of the act does not authorize

amendatory thereof or supplementary thereto, such as the 
Reclamation Project Act of 1939, 43 U.S.C. § 403 et seq., as 
amended.

3/ The authorized purposes of WIIP are stated in § 61511 of 
the act as "furnishing water for irrigation of irrigable and 
arable lands and for municipal, domestic, and industrial uses, 
providing recreation and fish and wildlife benefits, and 
controlling silt, and for other beneficial purposes. ..."
the use of water for municipal and industrial or miscellaneous purposes unless additional canal capacity is provided above that needed for irrigation deliveries. Section 615j further requires that the Secretary, as a precondition to making water deliveries for purposes other than irrigation, execute contracts assuring repayment of all costs associated with those additional water uses and that he obtain from Congress further appropriation of funds for construction of facilities capable of delivering additional water for other than the principal irrigation purpose of the project. None of these statutorily mandated preconditions for the delivery and use of NIIP water for purposes other than irrigation have been met at this time. Consequently, the Secretary is not authorized to deliver water for uses other than irrigation under present circumstances. Until such time as the Secretary decides.

Section 615j of the NIIP Act ties repayment of construction costs associated with irrigation of Indian lands to section 620c (d) of the Colorado River Storage Project Act, 43 U.S.C. § 620 et seq., as amended, since NIIP is a participating project of CRSP. 43 U.S.C. § 615j. Section 620c(d) of the CRSP Act requires repayment of the irrigation system construction costs in accordance with 25 U.S.C. § 386a, which provides for deferral of payment of all such charges against Indian-owned lands within any government irrigation project until such time as Indian title to the lands had been extinguished.

The Navajos are only entitled to use the amount of water actually required for beneficial consumptive use to irrigate the irrigable acreage on NIIP, as the project is currently constructed. Additional water supplies that may be available because of the water saved (that is, the water that results from the need to deplete only 236,000 acre feet rather than 252,000 acre feet, or 16,000 acre feet of water saved) as a result of the conversion of NIIP from a gravity irrigation system to a sprinkler irrigation system are subject to appropriation by others once the Navajos' irrigation needs have been met in full. See K.E. Clark, Waters and Water Rights, § 408.2, n. 56, Vol. V (Allen Smith Pub. Co. 1972), citing Salt River Valley Water Users' Assn. v. Kovacovich, 411 P.2d 201 (1966) Reh. den. (1966).

The Supreme Court has likewise held that return flows are subject to appropriation by others. Nebraska v. Wyoming, 325 U.S. 569 (1945). Applicable federal law and state law would, therefore, control the right of the Navajos to capture flows that would otherwise return to the stream system and use that water on the project for authorized beneficial nonirrigation uses. See 43 U.S.C. § 1535(a), which requires contracts for the use of NIIP water that must have the Secretary's approval in order to be valid and effective.

(footnotes continued on following page)
pursuant to his sole discretion, to execute any necessary repayment contracts and requests and is granted by Congress appropriations for the construction of additional capacity for purposes other than irrigation, the Secretary is not authorized to deliver water through the constructed irrigation works for purposes other than irrigation.

II. Diversion vs. Depletions as Limit on Water Use

Section 615jj of the NIIP Act (cited above) provides for an average annual diversion of 508,000 acre feet of water for the irrigation of approximately 110,630 acres of land. The actual depletion of the water sources from the irrigation of the authorized acreage was, as we have stated, initially estimated to be 252,000 acre feet annually. The amount of water actually required to be diverted, as well as the new estimated depletion under the project as constructed is somewhat less than that estimated at the time of authorization. The issue has been raised as to what is the authorized quantity of water that may be used on NIIP, i.e., is diversion or depletion the measure.

A diversion in the context of project water use may be defined as the amount of water initially taken out of the river system for use on the irrigable lands on a project, in this case, NIIP. A project depletion limit can be established by computing the level of beneficial consumptive water use that results from diversions less return flows to the river system. Bearing this

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Previous Solicitor’s memoranda have addressed the question of Navajo entitlement to water saved as a result of the conversion from a gravity to a sprinkler irrigation system. In other issues. The memoranda referred to are dated December 10, 1974, signed by Deputy Solicitor David Lindgren and July 30, 1980, signed by Solicitor Clyde Martz. Conclusions reached by those memoranda with regard to Navajo water use are not inconsistent with conclusions reached in this memorandum. The interpretation of the Solicitor’s Office has been constant that the Navajos may divert up to an average annual diversion of 508,000 acre feet of water to the extent needed to irrigate approximately 110,630 acres of land. The extent of the need must be confined to irrigation uses as explained above, and must be measured by beneficial consumptive use, as Congress has amply indicated. See discussion in part II of this memorandum, infra, at p. 5. The analytical treatment of the issues addressed in the instant memorandum varies from that contained in the previous opinions, and in some instances the analyses presented in those memoranda are not considered persuasive, even though the conclusions are consistent with those reached herein.
in mind, we conclude that, based upon the analysis which follows, Congress intended that water use on NIIP would be limited by beneficial consumptive use to the necessary diversions from the river less return flows; that is, stream depletions.

Section 615ii of the NIIP Act, 43 U.S.C., supra provides:

The Navajo Indian irrigation project and the initial stage of the San Juan-Chama project herein approved are substantially those described in the proposed coordinated report of the Acting Commissioner of Reclamation and the Commissioner of Indian Affairs, approved by the Secretary of the Interior on October 16, 1957, as conditioned, modified, and limited herein.

Section 615ii of the NIIP authorizing act appears to set 506,000 acre feet as the upper limit on yearly water uses for irrigation from the project, regardless of depletion. However, we must examine the feasibility report adopted by Congress and incorporated by reference in section 615ii of the statute as well as congressional statements of intent in order to determine whether Congress intended to allocate that uppermost stated diversion level as an absolute limit or right for project irrigation use.


Later project water use estimates discussed in the Senate Report on S. 107, the bill which eventually became the NIIP authorizing act, arrived at an average annual diversion limit of 508,000 acre feet of water to irrigate a net area of 110,630 acres of land. The Senate Report states that such a diversion would result in an "... average annual stream depletion of about 252,000 acre feet, exclusive of reservoir losses..." S.R. No. 83, 87th Cong., 1st Sess., 7 (1961).
The House Report on the counterpart to S. 107, H.R. 7596, makes reference to an estimated stream depletion of about 280,000 acre feet for NIIP. Congressional Record: H.R. Res. 596, 87th Cong., 2nd Sess., Legislative Digest 8200, 8207 (1962) (hereinafter L.D.). Since the project was authorized prior to its conversion from a gravity to a sprinkler irrigation system, we express no opinion as to which depletion estimate, 280,000 acre feet or 251,000 acre feet, Congress intended to adopt. The relevant factor is that the current authorized level of beneficial consumptive use of water to irrigate the specifically authorized 110,633 acres of land on the project as constructed is 238,000 acre feet; lower than either of the figures considered by Congress. Depending upon the water duty, or acre foot per acre of water applied, required for beneficial use on each acre of land, the depletion level of the project may vary. Therefore, in order to rationally determine the depletion level currently allowable on the project, the Secretary would need to know what water duty would be required for beneficial consumptive use and at what point the water duty becomes wasteful and, thus, could not be allowed.

The legislative history of the NIIP Act is replete with references to stream depletions based upon consumptive uses. Indeed, depletion of the stream system is the legal basis for determining available (appropriable) water supplies in the arid west and allocating those scarce water resources. In other words, water in the stream system is used and reused with the senior appropriator having the superior right in times of shortage. There is no indication that Congress intended to change this basic rule of western water law or change its general practice of deferring to state water law in authorizing water projects when it authorized NIIP. U.S. v. New Mexico, 438 U.S. 896 (1978). Indeed, Congressman Aspinall, Chairman of the House Committee on Interior and Insular Affairs at the time authorization of NIIP was considered, expressly represented to the House that NIIP was a “consumptive use” project. See L.D., supra at 8204, 8205.

In determining the appropriate limitations on NIIP water use, it is also clear from the legislative history of the authorizing act, discussed below, that Congress considered the 506,000 acre

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foot diversion limit set in section 615jj of the WIIP Act completely within the context of overall Colorado River water use by those water users who would be diverting water from the river system and charging those diversions against New Mexico's compact entitlement under New Mexico state law. R.D. 424, supra at XIX-K.VII. Congress has always included the Navajos among the water users whose appropriations on WIIP would count against New Mexico's total compact allocation. See L.D., supra at 8207.

With this understanding of congressional intent, we must conclude further that since beneficial consumptive use governs all water uses counted against New Mexico's compact entitlement, stream depletions define the appropriate limit on WIIP water use, and not simply diversions. The water necessary to beneficially irrigate the authorized project, that is, 110,610 acres is the ultimate measure of the entitlement.

Representative Aspinall pointed out during the debates before the full House on H.R. 7594 that WIIP, as a participating project of the Colorado River Storage Project, would partake of water apportioned to the Upper Division states by the Upper Colorado River Basin Compact. L.D., supra at 8204. Congress carefully considered in its debates the effect construction of WIIP, as well as the San Juan-Chama and the proposed Animas-La Plata projects (to the extent that Animas-La Plata would be located in New Mexico), would have on the overall Colorado River water supply, in order to assure itself that the state of New Mexico would not exceed its compact entitlement, against which, as we have pointed out, WIIP water use was counted. Congressman Aspinall, relying upon a report by Sidney L. McFarland, Engineering Consultant, which analyzed the water supply for WIIP and the San Juan-Chama Project, reported to the House that there was plenty of water available under the compact entitlement concept used in the McFarland report. L.D., supra at 8205.

Total estimated average annual stream depletions caused by New Mexico uses, including the depletion requirements for WIIP (estimated at 252,300 acre feet) were said to be 637,400 acre feet in the McFarland Report. Comm. Pr. No. 5, 87th Cong., 1st Sess. 17 (1961).

It is apparent that, absent the expected return flows to the river system from diversions on WIIP, Congress would not have authorized the project because to allow total water use based upon the diversion estimate in the authorizing legislation,

3/ See Committee Print No. 5, 87th Cong., 1st Session, Staff Memorandum: "Water Supply for the San Juan-Chama Reclamation Project and the Navajo Indian Irrigation Project" (1961); L.D., supra at 8205.
regardless of depletions, would have a clear, substantial, and adverse impact upon the availability of water in the Colorado river system for existing and proposed uses by other New Mexico water users. Allowing diversions regardless of depletions would, in short, interfere with vested state water rights/ and result in the appropriation of nearly the entire amount of water allocated to New Mexico under the Upper Colorado River Basin Compact to a single water user, the Navajo Tribe. There is nothing in the NIIP statute or its legislative history which indicates that this single user allocation was even remotely intended by Congress.

In other words, it is highly unlikely that Congress expected all other Colorado river Basin water users to be bound by the "law of the river," that is, beneficial consumptive use as the measure and the limit of the water rights,10/ without also expecting the Secretary, and through him the Navajos, to be held to such a standard of water use. Such a conclusion would be particularly absurd given the arid climate and water deficient condition of the area in which the project was built, and Congress' oft-expressed concern with overall water availability in the Basin.11/

In summary, while an average annual diversion of up to 500,000 acre feet is authorized by the NIIP Act, stream depletions define the actual limit of the right of the Navajos to beneficial consumptive use of water from the river system to meet the irrigation requirements for the 110,630 acres of NIIP lands.

III. Conclusions

Sections 615jj and 61511 do not authorize the use of project water by the Navajos for purposes other than irrigation, given the current limitations on the delivery capacity of the canal. The preconditions to nonirrigation water use on NIIP established in section 61511 must first be met before the Navajos may use, or the Secretary may deliver water for nonirrigation uses.

Congress expected Navajo water appropriations to be based upon beneficial consumptive use. Therefore, the required diversions up to a maximum of 500,000 acre feet, less return flows, that is, stream depletions, set the limit for Navajo beneficial water use on NIIP.


