January 27, 1926.

Memorandum for Dean Merrill re recommendations of Secretary of the Interior

Work regarding Colorado River development proposed in the Swing-

Johnson bill now before Congress:

The essential features of the Secretary's recommendations are:

(1) That the entire cost of the proposed works, estimated at

$125,000,000, be covered by the sale of U. S. Government bonds to be re-
tired, with interest at 4 per cent., in 25 years from the sale of power
and water.

The Swing-Johnson bill provides that the cost of the pro-
posed development shall be met by direct appropriation by Con-
gress, the cost of the dam and incidental works to be paid en-
tirely by the Government or in part through annual contributions
by political subdivisions of the states, and the cost of all
irrigation canals and appurtenances to be charged equitably
against the lands benefited.

(2) That the All-American Canal be constructed only in the event
that the existing concession under which Imperial Canal passes through
Mexico, and by the terms of which one-half of the water carried shall be
available for use in Mexico, can not be modified.

The Swing-Johnson bill provides definitely for construction
of the All-American Canal.

(3) That the Government should itself build and own the central
power station below the Dam, the electric energy generated to be sold to the
highest and best bidders, with due regard to the public interest, at the
switchboard of the central power plant, and with transmission and distribu-
tion of power to be provided by purchasers.

Under the Swing-Johnson bill the power privileges made available would be allocated and leased on a basis of an equitable distribution among the various interested states and communities therein, with preference to political subdivisions. This would require construction of power plants by the purchasers, which the Secretary does not favor because of inequality in the available allotments and of the operation and administration controversies that would be created under such procedure.

(4) That no work shall be begun or moneys expended under the Act until at least six states have ratified the Colorado River Compact.

This is not required under the Swing-Johnson Bill. The Colorado River Compact is a seven-state compact drafted in 1922 by the Colorado River Commission, of which Herbert Hoover was chairman, and provides for allocating the water of Colorado River up to 15 million acre-feet annually equally as between the states of the "upper" basin (Wyoming, Colorado, Utah, and New Mexico) and the states of the "lower" basin (California, Arizona, and Nevada). It has been ratified by all states except Arizona which holds out (1) for a prior equitable division among the lower division states of the water allocated to the lower division, and (2) for allocation to Arizona of power rights or royalties on the basis of power resources on the Colorado existing within Arizona. Subsequently, Nevada and the upper basin states agreed to substitute a six-state compact, leaving out Arizona, but the last Legislature of California attached certain reservations unacceptable to the other states, and thus defeated the six-state pact. The recommendation of the Secretary that at least six states ratify the compact before starting the project probably has not been pleasing to the Imperial Valley people, but I doubt if they will hold out against it.

(5) That in connection with the preference given in the Swing-Johnson Bill to ex-service men in the matter of entry of the east-side mesa Government lands, the provisions of the Act of Congress of 1924 providing for selection of settlers on the basis of certain desirable qualifications shall apply.

This is not included in the Swing-Johnson Bill.
While the recommendations of Secretary Work involve several important features of new reclamation policy, particularly that relating to complete financing by a Government bond issue and without participation by the lands benefited in the cost of the All-American Canal if built except through purchase of water, my own judgment is that the recommendations should be accepted. The need for flood control of the Colorado and for a satisfactory settlement of the controversies arising under the Mexican concession is urgent. I believe there is unanimous agreement as to this. There is not unanimous agreement as to location of the storage work at Boulder or Black Canyon, the engineers of the Federal Power Commission having held out for development of power resources farther up the river, and with much smaller storage for flood control. The weight of engineering judgment, however, and also the preference of the largest interests, including Imperial Valley, the city of Los Angeles, and all of the communities of southern California, is in favor of the Boulder or Black Canyon site. Arizona is opposed to it (1) because it will result in rapid development of projects in California and Mexico at the expense of future development in Arizona unless future rights of Arizona are protected through agreement by the lower basin states, and (2) which seems to be their main reason, because they consider that a dam higher up at Bridge Canyon would be in the interests of their proposed high line canal 700 or 800 miles long reaching 3 or 4 million acres in central Arizona - a project which practically all engineers condemn as impracticable and not justifying future consideration.

The matter of the All-American canal has been in controversy for many years. This project has been actively promoted by the Farm Bureau, Imperial Irrigation District, the American Legion, and a large percentage
of the farmers of Imperial Valley since 1916. About 1919 Dr. Elwood Hed was appointed to represent the University of California on an engineering board to determine the cost of the proposed All-American canal. Many large interests have been against the All-American canal, and the question of its construction has become a political issue throughout southern California and is today. The recommendations of the Secretary of the Interior that this canal shall be built only in the event that the unsatisfactory Mexican concession can not be modified and, that if built it shall be paid for through the sale of water in accordance with the Reclamation and Warren Acts, and not as a direct capital charge against the lands of Imperial Valley, is likely to lessen the opposition. It is proposed, however, that rates for water shall be sufficient to pay operation and maintenance costs and construction cost without interest, which in substance is not different from proposals under the Swing-Johnson Bill. This canal is estimated to cost 50 million dollars and will be difficult to maintain and it seems to me that the Secretary of the Interior is sound when he recommends that this expenditure, except to end the present unsatisfactory situation under the Mexican concession, should not be made.

There is no question that the building of a high dam as proposed at Boulder or Black canyon will be of tremendous economic importance to the entire southwest. The city of Los Angeles and other southern California communities are looking forward to development to a population of 10 million people by means of the water and power proposed to be obtained. Los Angeles alone proposing to take 1500 cubic feet per second of water for domestic uses. Los Angeles has stood ready to finance the whole Boulder Dam, as has also
the Southern California Edison Company, and I believe other power interests. The Federal Power Commission has opposed public construction of the project, contending that development of the Colorado should proceed under the Federal Water Power Act. I am convinced that the Secretary of the Interior is right when he says that construction and subsequent control of these works is a measure of such economic and social importance "that no agency but the Federal Government should be entrusted with the protection of rights of distribution of its opportunities." Practically the same attitude was taken by a previous Secretary of the Interior (Secretary Fall), although he made no such complete recommendations as those of Secretary Work.

There are many angles to this whole question that have not been touched on in this brief memorandum, the presumption being that you have time to consider only the essential elements. I am, however, attempting to keep informed on the situation as far as this is practicable.

According to press reports the recommendations of Secretary Work were concurred in by the President, Secretary Hoover, and the cabinet before being forwarded to the Senate Committee on Irrigation and Reclamation.

Frank Adams, Professor of Irrigation Investigations and Practice.