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S3d Congress 2d Session  
SENIATE REPORT  
No. 1983

AUTHORIZING THE SECRETARY OF THE INTERIOR TO CONSTRUCT, OPERATE, AND MAINTAIN THE COLORADO RIVER STORAGE PROJECT AND PARTICIPATING PROJECTS

JULY 26 (legislative day, JUIY 2), 1954.—Ordered to be printed

Mr. Millikin, from the Committee on Interior and Insular Affairs, submitted the following REPORT together with the

MINORITY VIEWS OF MR. KUCHEL

[To accompany S. 1555]

The Committee on Interior and Insular Affairs, to whom was referred the bill (S. 1555) to authorize the Secretary of the Interior to construct, operate, and maintain the Colorado River storage project and participating projects in the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, having considered the same, report favorably thereon with an amendment in the nature of a substitute, and with the recommendation that the bill, as amended, do pass.

PURPOSE OF THE BILL

The purpose of S. 1555, as amended, is threefold. First, it would authorize a series of "holdover storage" reservoirs, with hydropower plants and incidental works. Second, it would authorize a number of consumptive use projects. Third, it would recognize, with a view to laying a foundation for eventual further action by the Congress, certain units and projects in several stages of planning, but, plans for which are not sufficiently advanced to warrant final and unconditional authorization.

BACKGROUND

The Colorado River compact of 1922 divides the Colorado River Basin into two parts: the upper basin, comprising those parts of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming...
within which and from which waters naturally drain into the Colorado River system above Lee Ferry, and also all parts of said States located without the drainage area of the Colorado River system which are now or shall hereafter be beneficially served by waters diverted from the system above Lee Ferry (Colorado River compact, art. II f)—

and the lower basin, comprising—

those parts of the States of Arizona, California, Nevada, New Mexico, and Utah within and from which waters naturally drain into the Colorado River system below Lee Ferry, and also any parts of said States located without the drainage area of the Colorado River system which are now or shall hereafter be beneficially served by waters diverted from the system below Lee Ferry (Colorado River compact, art. II g).

Article III (a) of the compact apportions to each basin in perpetuity “the exclusive beneficial consumptive use of 7,500,000 acre-feet of water per annum ** * * *.

Article III (d) of the compact provides that the—

States of the upper division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75 million acre-feet for any period of 10 consecutive years ** * * *.

The Colorado River compact and the Boulder Canyon Project Act (45 Stat. 1057) became effective in 1928 upon ratification of the compact by all States other than Arizona, the enactment of the California Limitation Act, and proclamation by the President.

The upper Colorado River Basin compact of 1948 apportioned among the States of Arizona, Colorado, New Mexico, Utah, and Wyoming the consumptive use of waters apportioned to the upper basin by the Colorado River compact of 1922.

Lower basin development has proceeded at a rapid pace with the construction of Hoover Dam and the Boulder Canyon project, Parker Dam, Davis Dam, and other works. Large populations in cities such as Los Angeles and San Diego, and extensive agricultural areas served by the Imperial Irrigation District, the Palo Verde District and others make growing uses of the waters of the Colorado River for domestic, industrial, and agricultural purposes.

In contrast, development in the upper basin has been slow. The upper basin comprises an area of some 110,000 square miles. On its fringes lie such large centers of population as Albuquerque, Denver, and Salt Lake City and their environs, each of which has experienced rapid growth in recent years; each of which anticipates additional significant growth, with ever more urgent need for water and power. The upper basin proper has been primarily an agricultural area. It contains, however, important resources of uranium, vanadium, iron, and other metals, coal, oil, oil shale, and phosphates. It stands, the committee believes, on the verge of great industrial growth, with consequent increase in need for water for domestic, industrial, and agricultural purposes.

The Colorado River is an erratic stream. Its periods of high flow do not coincide with the periods of greatest demand on its waters. If, therefore, any substantial additional uses of water are to be made by the upper division States (Colorado, New Mexico, Utah, Wyoming), there must be provided a series of so-called holdover storage reservoirs, which will assure compliance with article III (d) of the compact and, at the same time, permit the upper basin States to achieve ultimate development of waters available to them. As these waters are released, they will generate hydroelectric power, which can be used to advantage and for which there is a ready market throughout all the Colorado River Basin States. These reservoirs can at the same time provide recreational areas comparable to Lake Mead behind Hoover Dam.

** DESCRIPTION OF THE BILL **

The repayment provisions of the bill, following very closely recommendations made by the President, the Bureau of the Budget, and the Secretary of the Interior, are designed to achieve the contemporaneous return of expenditures for power and irrigation and municipal and industrial water supply purposes, insofar as expenditures therefor are made contemporaneously. The power and municipal and industrial water supply expenditures are returned with interest. All reimbursable costs are returnable within 50-year periods, and this is specifically required by section 4 of the bill, as amended.

The committee considered whether litigation now pending in the Supreme Court of the United States between Arizona and California, et al., is of a character such as to raise any question on the advisability of the authorization at this time of the works herein recommended. The committee is of the opinion that nothing in such pending litigation need delay the authorization of the works proposed in the bill.

The works recommended by the Upper Colorado River Commission for the States of Colorado, New Mexico, Utah, and Wyoming are fully justified and partake of the character of works heretofore authorized under the Federal reclamation program. The committee does not consider that the authorization of this plan of development can or should be construed as detrimental in any respect to the interests of Arizona, California, or Nevada, as lower basin States, whether as litigants or otherwise. However, the committee has recommended amendments which will make it possible for any Colorado River Basin State to institute litigation promptly in the Supreme Court of the United States, in the event questions arise regarding the legality of the operation of any works herein authorized or of any other works on the river. Possible frustration of efforts effectively to litigate such questions is avoided by waiver of the United States immunity from suit. (See sec. 12 of the bill, as amended.)

Thus, all States of the Colorado River Basin are fully protected against the operation of any works on the Colorado River system in contradiction of the Colorado River compact of 1922, the Boulder Canyon Project Act and the Mexican treaty.

** PROJECT WORKS **

Features in the plan for developing the upper Colorado River Basin are divided into two categories: Storage units and consumptive-use units, the latter, for the sake of clarity, being designated “participating projects.” This bill would authorize the initial phase of the plan. In this initial phase are the following storage units: Cross Mountain, Curecanti, Echo Park, Flaming Gorge, Glen Canyon, and Navajo; and the following participating projects: Central Utah (initial phase), Emery County, Florida, Gooseberry, Hammond, La Barge, Lyman, Parker, Pineview (Minnesota unit), Rattlesnake, Seedskadee, Silt, Smith Fork, San Juan-Chama, and Navajo.

Brief descriptions of the physical features of these storage units and participating projects follow:
STORAGE UNITS

**Cross Mountain**

This storage unit would be located on the Yampa River about 50 miles west of Craig, Colo. The dam would be a concrete, gravity structure, rising 295 feet above the river. Cross Mountain Reservoir would have a total capacity of 5,200,000 acre-feet. A 60,000-kilowatt powerplant would be located 3 miles downstream from the dam and by means of a power tunnel would utilize an additional 150 feet of fall in the river. Because of this long tunnel arrangement, Cross Mountain powerplant can best be operated in conjunction with the Echo Park powerplant 60 miles downstream.

**Curecanti**

The Curecanti Dam would be located on the Gunnison River, below the town of Gunnison, Colo. It would be a concrete, gravity-type structure, rising 395 feet above bedrock. The bill limits the water-surface elevation of the reservoir to 7,520 feet. At this water-surface elevation, the capacity of the reservoir is estimated at 940,000 acre-feet. As presently contemplated, the powerplant would have an installed capacity of 40,000 kilowatts. The bill provides that construction cannot be started until further detailed studies are made and the unit found to be economically justified.

**Echo Park**

The Echo Park Dam would be located in Colorado, on the Green River, about 3 miles east of the Utah-Colorado State line and 3 miles below the junction of the Green and the Yampa Rivers. The Echo Park Dam is in the power market area of the upper basin of the river. Because of its strategic location below the junction of the Yampa and Green Rivers, the large and efficient reservoir created by it, the construction and operation of the Echo Park unit would increase the effectiveness of supplementary storage and power developments at the Flaming Gorge and Cross Mountain units and of the future Split Mountain and Gray Canyon units. The Echo Park Dam would be a curved, gravity-type, concrete structure rising 690 feet above bedrock. The reservoir would have a storage capacity of 6,460,000 acre-feet, and the powerplant a generating capacity of 200,000 kilowatts.

**Flaming Gorge**

The principal feature of the Flaming Gorge unit is the dam, which will be located on the Green River in Utah, about 32 miles north of Vernal, and which would be a concrete, gravity-type structure, rising 440 feet above the river. Flaming Gorge Reservoir formed by the dam would have a total capacity of 3,940,000 acre-feet. The powerplant at the dam would have a capacity of 72,000 kilowatts.

**Glen Canyon**

The Glen Canyon Dam would be located on the Colorado River in northern Arizona, about 13 miles downstream from the Utah-Arizona State line and 15 miles upstream from Lee Ferry—the division point between the lower and upper basins. It would be a concrete, curved, gravity-type structure rising 700 feet above bedrock. The reservoir, with a total capacity of 26 million acre-feet, would provide final regulation for deliveries to the lower basin under the Colorado River compact. The powerplant would be located near the toe of the dam. It would have a total installed capacity of 800,000 kilowatts.

**Navaho**

The Navaho Dam would be located on the San Juan River in northwestern New Mexico about 34 miles east of the town of Farmington. The dam would be a rolled, earth-fill embankment rising 335 feet above stream bed. Navaho Reservoir would have a total capacity of 1,200,000 acre-feet. The dam and reservoir will provide for gravity diversion of water for delivery to Indian lands to be irrigated under the Navaho project. Also, in connection with the San Juan-Chama project, the reservoir would constitute a source of supply for downstream irrigation users in exchange for natural flow diverted upstream.

**Emery County**

The Emery County project is located in east-central Utah along the San Rafael River. The project works would include a dam and reservoir, a diversion dam, a canal, and laterals and drains. The project would irrigate about 3,630 acres of new land and furnish supplemental water for about 20,450 acres.

**Florida**

The Florida project is in southwestern Colorado, in the Florida River Valley. Project works would include a dam and reservoir, a diversion dam, enlargement and extension of existing canal, and distribution laterals and drains. The project would irrigate about 6,300 acres of new land and furnish supplemental water to about 12,650 acres.

**Gooseberry**

The Gooseberry project would be located in central Utah. It would consist of a storage reservoir on Gooseberry Creek, a tributary to the Colorado River, having a capacity of 17,200 acre-feet, a 24-mile tunnel to San Pete Valley in the Bonneville Basin, a diversion dam and high-line canal to deliver the water to existing and new irrigated lands. It would furnish supplemental water for 16,400 acres of irrigated lands now having an inadequate water supply.
Hammond

The Hammond project is in northwestern New Mexico along the San Juan River. The project works would include a diversion dam, a canal, and distribution laterals and drains. The project would irrigate about 3,670 acres of new land.

LaBarge

The LaBarge project is in southwestern Wyoming in the upper end of the Colorado River Basin. It extends approximately 40 miles along the west side of the Green River. Project works would include a diversion dam, conveyance canal, and distribution laterals. About 7,970 acres of new land would be irrigated by the project.

Lyman

The Lyman project is in southwestern Wyoming, just above the Utah-Wyoming state line. It lies along Blacks Fork, a tributary of the Green River. Project works include a reservoir, conveyance canals, and drainage facilities. Supplemental water would be furnished to about 40,600 acres.

Paonia

The Paonia project is located in west-central Colorado on the North Fork of the Gunnison River. This project was previously authorized and is partially constructed. It would, however, be extended by this reauthorization. The project works include a dam and reservoir, canals, and siphon. As reauthorized, the area to be served would include 17,040 acres, of which 2,210 would be new land and 14,830 acres would be furnished supplemental water.

Pine River extension

The Pine River extension is in southwestern Colorado and northwestern New Mexico, on Pine River, 20 miles east of Durango, Colo. The project works include a diversion dam, the enlargement and extension of canals, and a number of distribution laterals. The project would irrigate about 15,150 acres of new land. Storage water is to be obtained from existing Vallecito Dam and Reservoir on Pine River.

Seedskadee

The Seedskadee project is in southwestern Wyoming along the Green River below the LaBarge project. Project works would include a diversion dam, conveyance canals, and distribution laterals. About 60,720 acres of new land would be irrigated by the project.

Silt

The Silt project is located in west-central Colorado between Rifle and Elk Creeks. The project works include a dam, and reservoir pumping system, rehabilitation of existing canal, and construction of some new laterals and drains. The project would irrigate about 1,900 acres of new land and would furnish supplemental water for about 5,400 acres.

Smith Fork

The Smith Fork project is located in west-central Colorado along Smith Fork, a tributary of the Gunnison River. The project works would include a dam and reservoir, diversion dam, canals, and laterals. The project would irrigate about 2,270 acres of new land and furnish supplemental water for about 5,150 acres.

San Juan-Chama

The San Juan-Chama project would be located in northern New Mexico partly in the San Juan Basin of southern Colorado and partly in the Rio Grande and Canadian River Basins in northern New Mexico. This project would provide for a maximum diversion of 235,000 acre-feet of water annually from the headwaters of the San Juan River through a collection system and a tunnel to the headwaters of the Chama, a tributary of the Rio Grande. An off-channel holding and regulatory reservoir would be provided on the Chama where the water would be delivered to the agricultural users through the distribution systems of existing projects. With respect to the authorization of this project, see section 2 of the bill.

Navaho

The Navaho project (formerly called the Shiprock and south San Juan projects) is in northwestern New Mexico along the San Juan River. The project would provide for the irrigation of 151,000 acres of new lands in the vicinity of the towns of Bloomfield, Farmington, and Shiprock. Of that total, 122,000 acres are located in the Navaho Indian Reservation and 29,000 acres are outside the reservation. A main high-line canal from the Navaho Reservoir would extend 28 miles to a drop and direct-connected turbine pump for service of highlands and then 60 miles to serve the major portion of the lands by gravity. A distribution system and drains also are planned. With respect to the authorization of this project, see section 2 of the bill.

OTHER FEATURES OF THE BILL

The committee recognizes that it may be found desirable to authorize additional storage in the upper reaches of the Colorado River and its tributaries above Grand Junction, Colo., and of additional participating projects in the several upper division States. (See sec. 2 of the bill.)

The bill contains a provision authorizing the appropriate agencies of the United States to convey for value to the city and county of Denver, Colo., water rights and interests in lands required for the enlargement of that city's municipal water supply.

The committee believes that the project is financially sound. It has been subjected to the most rigid economic and financial analyses. Less than 3 percent of the total cost is nonreimbursable for flood control, fish and wildlife, and recreation. The entire cost of the power and municipal water features will be returned to the United States Treasury with interest not only on the capital investment but also with interest accruing during their construction. Interest would be computed at the going rate for long-term Treasury obligations. The irrigation costs do not bear interest, pursuant to the 50-year-old policy of the reclamation law. The Federal Government has recognized that the development of irrigated lands is a good public investment, and Federal funds, since 1902, have been provided interest-free to build reclamation projects.

Section 3 of the bill, relating to water conservancy districts, takes into account the indirect benefits that will accrue to the general areas served by these projects. Indirect beneficiaries in the service areas of these projects would thereby aid in the repayment of irrigation...
## Colorado River Storage and Participating Projects

### Summary—Construction costs and allocations—Colorado River storage project and participating projects

<table>
<thead>
<tr>
<th>Project</th>
<th>State</th>
<th>Total Expenditures</th>
<th>Nonreimbursable</th>
<th>Reimbursable allocations (exclusive of interest during construction)</th>
<th>Irrigation allocation repayable by water users</th>
<th>Irrigation allocation assigned for repayment from net power revenues</th>
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</thead>
<tbody>
<tr>
<td>Colorado River storage project</td>
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<tr>
<td>Initial units</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Echo Park unit</td>
<td>Colorado, Utah</td>
<td>$179,000,000</td>
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<td>$128,203,000</td>
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<td>Glen Canyon unit</td>
<td>Arizona, Utah</td>
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<td>370,974,000</td>
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<td>Gypsum unit (400,000 acre-feet)</td>
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<td>40,000,000</td>
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<td>41,200,000</td>
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<tr>
<td>Cross Mountain</td>
<td>do</td>
<td>40,000,000</td>
<td></td>
<td>30,370,000</td>
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<tr>
<td>Flaming Gorge</td>
<td>Utah</td>
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<td>54,000,000</td>
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<td>Navaho</td>
<td>New Mexico</td>
<td>96,110,000</td>
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<td>Total, Initial units</td>
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<td>488,388,000</td>
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<td>365,921,000</td>
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<td>217,347,000</td>
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<td>Participating projects</td>
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<tr>
<td>LaBarge-Goose Island</td>
<td>Wyoming</td>
<td>1,759,000</td>
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<td>Lyman</td>
<td>do</td>
<td>10,084,000</td>
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<td>SF    (formerly Smith Fork)</td>
<td>Colorado</td>
<td>3,047,000</td>
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<tr>
<td>Pueblo</td>
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<td>Philly</td>
<td>Florida</td>
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<td>Pine River project extension</td>
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<td>Central Utah (Initial phase)</td>
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<td>River</td>
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<td>San Juan-Colorado</td>
<td>do</td>
<td>144,960</td>
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<tr>
<td>Total, participating projects</td>
<td></td>
<td>635,468,800</td>
<td></td>
<td>494,900,000</td>
<td></td>
<td>384,040,400</td>
</tr>
</tbody>
</table>

1. Exclusively allocable to purposes of the ultimate phase of central Utah project.
2. Eventually an appropriate portion of the cost of the Navaho Dam will be added to this amount.

### Notes
- The irrigation farmers would be assessed according to their ability to pay over a 30-year period, and the balance of the costs allocated to irrigation would be repaid by power revenues. Special Funds are contained in the bill to absorb imputation of construction costs. Frustration and delay in full repayment has been accomplished, power revenues up to $21 million per annum when all units are in operation, will flow into the Treasury.
- Total participating projects include:
  - Colorado River storage project, initial units
  - Participating projects
- Grand total:
  - 1,490,071,800
  - 8,500,000
  - 677,429,000
  - 366,879,000
  - 475,389,000
  - 81,096,000
  - 384,040,400

### Table

- Total Construction Costs:
  - 1,490,071,800
  - 8,500,000
  - 677,429,000
  - 366,879,000
  - 475,389,000
  - 81,096,000
  - 384,040,400

### Additional Information
- The Colorado River storage project includes the initial units and participating projects.
- Participating projects span various states and counties, including Wyoming, Arizona, Utah, and New Mexico.
- The total construction costs are shared among various units and projects.
- Reimbursable allocations are exclusive of interest during construction.
- Irrigation allocation repayable by water users is assigned based on the projects' water uses.
- Eventually, an appropriate portion of the cost of the Navaho Dam will be added to the total costs.
The comments of the President, the Bureau of the Budget, and the Department of the Interior are made a part of this report.

THE WHITE HOUSE

STATEMENT BY THE PRESIDENT

I have today approved recommendations for the development of the upper Colorado River Basin. The general plan upon which these recommendations are based has been prepared by the Secretary of the Interior. The Secretary's recommendations have been reviewed by the Bureau of the Budget. Legislation embodying the administration's recommendations is being prepared for introduction in the Congress. This is a comprehensive, well-planned development of a river basin. The close Federal-State cooperation upon which the Secretary's plan is based also carries out this administration's approach to water resource development.

The development will conserve water, enabling the region to increase supplies for municipal uses, industrial development, and irrigation. It will develop much-needed electric power.

The development calls for sound financing. The legislation now being drafted will set up a fund for the entire project so that it will be constructed and paid for as a basin program. Construction of the Echo Park and Glen Canyon Dams, two of the large projects in the basin plan, is recommended. These dams are key units strategically located to provide the necessary storage of water to make the plan work at its maximum efficiency.

The legislation being drafted will authorize a number of projects which will put to use the waters of the upper Colorado. The plans for these projects will become effective following further consideration by the Secretary of the Interior, with the assistance of the Secretary of Agriculture, of the relation of these projects to the wise use and sound development of the basin.

I am deferring my recommendation on the Shiprock unit of the Navajo project until the Secretary has completed his study. I hope the Congress will give early consideration to enactment of the administration's legislative proposal. I firmly believe development of the upper Colorado River Basin, in accordance with its provisions, is in the national interest.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,

HON. HUGH BUTLER,
Chairman, Committee on Interior and Insular Affairs,
United States Senate, Washington 25, D. C.

MY DEAR MR. CHAIRMAN: I am authorized to inform you that the President has given his general approval to the comprehensive plan for the development of the water resources of the upper Colorado River Basin outlined in the supplemental report recently completed by the Secretary of the Interior.

The comprehensive plan of development proposed would consist of (1) a series of large dams on the Colorado River and its major tributaries for the purpose of conservation storage and the generation of hydroelectric power, (2) a group of related irrigation projects in the upper basin, and (3) the development of municipal and industrial water supplies. These projects, which have been developed to permit the upper basin States to utilize the waters allocated to them under the terms of the Colorado River compact of 1922, are designed to make the plan work at its maximum efficiency.

Attached is a copy of our letter to the Secretary of the Interior expressing our views on his supplemental report. This letter also reflects our views with respect to the authorizing legislation necessary to carry out the administration's recommendations. These recommendations would require modification of the terms of S. 1555 on which you have requested the Bureau's views.

(1) Authorization limited to those projects which are recommended for construction in the Secretary's report and upon which planning activities have been completed.

(2) Authorization of participating projects to become effective following re-examination and a new finding of favorable economic justification by the Secretary of the Interior.

The comments of the President, the Bureau of the Budget, and the Department of the Interior are made a part of this report.

COLORADO RIVER STORAGE AND PARTICIPATING PROJECTS

(3) Financial arrangements for the entire development consolidated through the establishment of a separate revolving fund.

(4) Provision made for returning to the general fund of the Treasury all reimbursable costs of the project including interest on the commercial power and municipal water supply investment.

(5) Greater emphasis given to the use of conservation districts for the purpose of carrying out local responsibilities.

(6) Conditions governing the sale of power clarified to provide needed flexibility and still give adequate protection to upper basin interests.

(7) Authorized recreational facilities and improvements for fish and wildlife financed by the agencies responsible for these programs.

(8) Work of participating agencies carried on under existing statutory authority and financed by the agencies performing the work.

Legislation to implement these proposals is now being drafted and will be submitted to the Congress as a part of the President's program.

In the light of the foregoing, it is recommended that you defer your consideration of S. 1555 in its present form pending submission of the legislation mentioned above.

Sincerely yours,

JOS. M. DODGE, Director,
EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,

The honorable SHEETARY OF THE INTERIOR.

MY DEAR MR. SECRETARY: This is in response to your letter of December 10 to the Secretary of the Interior. This is a supplemental report on the Colorado River storage project and participating projects. Further development of the upper Colorado River Basin in general accordance with the recommendations contained in your supplemental report has the support of the President. Legislation for this purpose would be in accord with the program of the President. Appropriations for this purpose should be so made as to provide replacement storage to meet the upper basin's commitment to the lower basin and to permit increased consumptive use of water in the upper basin. In addition, both units will generate substantial amounts of hydroelectric power.

3. Authorization of recreational facilities to be constructed by the National Park Service within the Dinosaur National Monument would be in accord with the program of the President. Appropriations for this purpose should be so authorized that they can be made directly to the Park Service.

4. A requirements that conservation districts be established to assist in irrigation projects would be in accord with the program of the President and should be met before any participating project is undertaken.

5. Authorization to make the surplus power revenues of the storage projects available for repayment of construction costs on the Eden project and the previously authorized portion of the Pauonia project would be without objection.

6. Provisional authorization of the Shiprock unit of the Navajo project would not be in accord with the program of the President at this time. This advice is with reference to the letter to the Secretary of the Interior expressing our views on the supplemental report. This letter also reflects our views with respect to the authorizing legislation necessary to carry out the administration's recommendations. These recommendations would require modification of the terms of S. 1555 on which you have requested the Bureau's views.

(1) Authorization limited to those projects which are recommended for construction in the Secretary's report and upon which planning activities have been completed.

(2) Authorization of participating projects to become effective following re-examination and a new finding of favorable economic justification by the Secretary of the Interior.

(a) A joint study with the Department of Agriculture of the direct agricultural benefits of each project.

4. Authorization of the following projects: (a) The development of hydroelectric energy, including the provision of adequate storage for peak load operation, for the Canyon Diablo and the Humboldt River projects.

5. Authorization to carry out the administration's approach to water resource development.

COLORADO RIVER STORAGE AND PARTICIPATING PROJECTS

(1) Authorization of the shiprock unit of the Navajo project.

6. Provisional authorization of the Shiprock unit of the Navajo project would be in accord with the program of the President. The authorization would be effective following a new finding of favorable economic justification by the Secretary of the Interior after individual project reports have been prepared which include—

(a) A joint study with the Department of Agriculture of the direct agricultural benefits of each project.
COLORADO RIVER STORAGE AND PARTICIPATING PROJECTS

(b) A revaluation of the nondirect benefits of each project, based upon a reexamination of the methods presently used to compute the indirect and public benefits of reclamation projects.

The development of irrigation in the upper Colorado River Basin to use the increased supply of water made available as a result of the storage project is recognized as an integral part of the basin plan. Reclamation projects in the upper basin which are economically justified and which represent wise use of available resources in a manner consistent with State water laws, State and Federal compact requirements, and the terms of State or Federal compacts with the United States have the full support of the administration. Authorization of the participating projects proposed in your report should be contingent upon reexamination of the evidence thereon. There may be no doubt about the long-term economic justification of the participating projects finally undertaken. Reexamination is particularly necessary in the case of those projects which show a favorable economic justification only if a useful economic life of 100 years is assumed and if the full estimate of indirect and public benefits—the so-called "secondary" benefits—of the project is accepted. It is recognized that a basic purpose of the reclamation laws is to spur development of the West. Consequently, it follows that the justification of any project not adequately measured by economic standard measurements of project costs, the dollar value of the agricultural produce and other goods and services directly produced by the project. However, the procedures used to compute the secondary benefits of the participating projects proposed for authorization would appear to require a fundamental reexamination.

The standards and procedures for the economic appraisal of water-resources projects are now under review in the Executive Office. It is expected that any future recommendations made by the Secretary of the Interior would take into account the conclusions reached as a result of this review.

8. Provision should be made in the authorizing legislation for financing the project through a separate revolving fund established in the Treasury which would receive all appropriations for construction and maintenance as advances from the general fund; (b) receive all revenues collected in connection with the operation of the project; (c) be available for the operation and maintenance of the project, subject to such limitations as may be imposed by the Congress in annual appropriation acts; (d) be available for construction in accordance with the appropriations made therefor; (e) provide funds for the payments referred to in paragraph 5 above; and (f) pay to the general fund of the United States, after completion of all authorized work, the amount necessary to return within 50 years, exclusive of authorized development periods, the full reimbursable costs of that unit or feature, including interest on the construction and maintenance of the project, but excluding interest payments.

It is understood that there is a particular urgency for prompt submission of such legislative suggestions, and, accordingly, we are forwarding herewith copies of a draft bill incorporating our recommendations without the further delay which would be occasioned by the preparation of a detailed report on legislation pending before your committee.

Sincerely yours,

DOUGLAS MCKAY,
Secretary of the Interior.

A BILL To authorize the Secretary of the Interior to construct, operate, and maintain the Colorado River storage project and participating projects, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, in order to initiate the comprehensive development of the water resources of the Upper Colorado River Basin, the Congress, in the exercise of its constitutional authority to provide for the general welfare, to regulate commerce among the States and with the Indian tribes, and to make all needful rules and regulations respecting property belonging to the United States, and for the purpose of appropriating any further legislation in matters other than the regulation of the Colorado River, storing water for beneficial consumptive use, making it possible for the States of the Upper Basin to utilize, consistently with the provisions of the legislation and regulations respecting property belonging to the United States, and for the purpose of providing for the Colorado River Compact and the Upper Colorado River Basin Compact, respectively, for providing for the storage of water in the Upper Basin, for the utilization of water, and for the generation of hydroelectric power as an incident of the foregoing purposes, transfers to the Secretary of the Interior (herein called the Secretary) (1) to construct, operate, and maintain the following initial units of the Colorado River storage projects and participating projects, designated and described in the Master Development Plan of March 2, 1959, referred to in the report of the Committee on Interior and Insular Affairs, United States Senate, Washington, D. C., April 1, 1954, and approved and adopted by the ―Upper Colorado River Basin Study Committee,‖ approved on March 2, 1959, and to be called the Colorado River Storage Area (1) insular projects, (2) mainstem projects, (3) generating facilities and other necessary works: Echo Park and Glen Canyon; and (2) to construct, operate, and maintain the following additional reclamation projects (including power generating units and facilities related thereto), hereafter referred to as participating projects: Central Utah (Initial Phase), Eagle County, Florida, Hammond, Laffarge, Lyman, Paonia (including the Minnesota unit, a dam and reservoir on Moddle Creek just above its confluence with the North Fork of the Gunnison River, and other necessary works), Pine River Extension, Nezleake, Cul, and Smith Fores: Provided, That the authority to construct any participating project listed in the foregoing clauses (2) shall not become effective until the Secretary has examined the economic justification of such project and, accompanied by appropriate documentation in the form of a supplemental report, has certified to the Congress through the President that, in his judgment, the benefits of such project will exceed its costs. The Secretary's supplemental report for such each project shall be submitted to the Congress at a time and in such manner determined by the Congress, and shall include a description of the prospective direct agricultural benefits of the project, made by the Secretary in cooperation with the Secretary of Agriculture, and (b) a revaluation of the prospective direct agricultural benefits of the project, assignment of the water right to the project, as provided in the Tariff Act of 1944 (58 Stat. 887), shall not be applicable to such supplemental reports.

Sec. 2. In order to achieve such comprehensive development as will assure the consumptive use in the States of the Upper Colorado River Basin of the waters of the Colorado River system the use of which is apportioned to the Upper Colorado River Basin by the Colorado River Compact and to each State thereof
Upper Colorado River Basin Compact, it is the intent of the Congress in the future to the construction, operation, and maintenance of further units of the Colorado River project, of additional phases of such projects, and of new participating projects as additional information becomes available and additional needs are indicated. It is hereby declared to be the purpose of the Congress to authorize as participating projects only projects (including units or phases thereof)—

(1) for the use, in one or more of the States designated in Article III of the Colorado River Basin Compact, of water to be conveyed by the Upper Colorado River system for the consumptive use of which is apportioned to those States by that article;

(2) for which pertinent data sufficient to determine their probable engineering, economic and operating feasibility and cost shall be available. It is likewise declared to be the policy of the Congress that the costs of any participating project authorized in the future shall be amortized from its own revenues to the extent consistent with the provisions of this Act and Federal reclamation law.

SEC. 3. Except as otherwise provided in this Act, in constructing, operating, and maintaining the Colorado River Storage project and the participating projects authorized in section 1 of this Act, the Secretary shall be governed by the Federal reclamation laws (Act of June 17, 1902, 32 Stat. 388, and Acts amendatory thereof or supplementary thereto): Provided, That (a) irrigation repayment contracts shall be entered into with the Panama and Eden projects, provides for repayment of the obligation assumed thereunder with respect to any project contract over a period of not more than fifty years exclusive of any development period authorized by law; (b) prior to construction of irrigation distribution facilities repayment contracts shall be made with an "organization" as defined in paragraph 2 (g) of the Reclamation Act of 1939 (53 Stat. 1187, 43 U. S. C. 485) which has the capacity to enter into and perform all taxable real property local improvement contracts required to assist in making repayments, except where a substantial proportion of the lands to be served are owned by the United States; (c) contracts relating to municipal water supply may be made without the limitations of the last sentence of section 3 (c) of the Reclamation Act of 1939 (53 Stat. 1182, 43 U. S. C. 485), as to Indian lands within, under or served by any participating project, payment of construction costs within the capability of the land to repay shall be subject to the approval of the Secretary (47 Stat. 964). All units of participating projects thereunder shall be subject to the apportionments of the water of the Upper and Lower Basins of the Colorado River and among the States of the Upper Basin fixed in the Colorado River Compact and the Upper Colorado River Basin Compact respectively, and to the terms of the treaty with the United Mexican States (Treaty Series 904).

SEC. 4. (a) There is hereby authorized a separate fund, to be known as the Upper Colorado River Storage Fund (hereinafter referred to as the Basin Fund), which shall remain available until expended, as hereafter provided, for carrying out the provisions of this Act other than section 7.

(b) All appropriations made for the purpose of carrying out the provisions of this Act, other than section 7, shall be credited to the Basin Fund as advances from the general fund of the Treasury.

(c) All revenues collected in connection with the operation of the Colorado River Storage project and participating projects shall be credited to the Basin Fund, and shall be available, without further appropriation, for (1) defraying the costs of operation and maintenance of, and emergency expenditures for, all facilities of the Colorado River Storage project and participating projects, within annual limitations as may be included in annual appropriation acts; (2) payment as required by subsection (d) of this section, (3) payment of the reimbursable construction costs of the projects which are beyond the ability of the project having prescribed for the repayment of such construction costs, that portion of the project which has been constructed as of the date of this Act, and (4) payment in connection with the irrigation repayment provisions of this Act, as the Secretary shall determine in connection with the irrigation repayment provisions of this Act, as the Secretary shall determine.

(d) Revenues in excess of operating needs shall be paid annually to the general fund of the Treasury to: (1) the costs of each unit, participating project, or any separable feature thereof which is allocated to commercial power pursuant to Section 6 of this Act, within a period not exceeding fifty years from the date of completion of such unit, participating project or separable feature thereof; (2) the costs of each unit, participating project, or any separable feature thereof which is allocated to municipal water supply pursuant to Section 6 of this Act, within a period not exceeding fifty years from the date of completion of such unit, participating project, or separable feature thereof;

Sec. 5. Upon completion of each unit, participating project or separable feature thereof the Secretary shall allocate the total costs (excluding any expenditures for the development of constructing the project, the project or feature to power, irrigation, municipal water supply, flood control, navigation, or any other purposes authorized under Reclamation Law. Allocation of such proceeds, operations and maintenance costs shall be from the proceeds thereunder, at a rate determined by the Secretary as applicable for the purposes set forth in and consistent with other provisions of this Act, and such proceeds shall be available, without further appropriation, for (1) reclamation and improvement of the lands; (2) deficit payments, (3) irrigation and navigation reclamation, and to other purposes, the program of return and repayment thereon, and the estimated rate of progress, year by year, in accomplishing full repayment.

Sec. 6. The hydroelectric powerplants authorized by this Act to be constructed, operated, and maintained by the Secretary, to the extent fully consistent with the purposes of this Act, the Colorado River Compact, and the Upper Colorado River Basin Compact, be operated in conjunction with other Federal, state, and local power and potential, so as to achieve the greatest practicable amount of power and energy that is feasible and economically justifiable. Neither the impounding nor the use of water for the generation of power and energy at the plants of the Colorado River Storage project shall preclude or impair the appropriation for the operation of any water project pursuant to applicable State law, of waters apportioned to the States of the Upper Colorado River Basin, unless the Secretary of the Interior shall have determined that such power is surplus to the probable needs in such States. All other contracts for the sale of electric power pursuant to this Act shall be for periods not to exceed forty years.

Sec. 7. In connection with the development of the Colorado River Storage project and of the participating projects, the Secretary is authorized and di-

The text appears to be a legal document, likely related to a government project or act, discussing the establishment of a storage project, the allocation of resources, and the repayment mechanisms. It includes references to specific projects, federal reclamation laws, and provisions for construction, operation, and maintenance of water and power facilities.
rected to investigate, plan, construct, operate, and maintain (1) public recreational facilities on lands withdrawn or acquired for the development of said projects; (2) participating projects to conserve the scenery, the natural, historic, and archeological objects, and the wildlife on said lands made available for public use and enjoyment of the same and of the water areas created by these projects by such means as are consistent with the primary purposes of said projects; (3) facilities to mitigate losses of and improve conditions for the propagation of fish and wildlife. The Secretary is authorized to acquire lands and to withdraw public lands from entry or other disposition under the public lands laws, for the construction, operation, and maintenance of the facilities herein provided, and to dispose of them to Federal, State, and local governmental agencies by lease, transfer, exchange, or conveyance upon such terms and conditions as will best promote their development and operation in the public interest. All costs incurred pursuant to this section shall be nonreimbursable and nonreturnable.

Sec. 8. Nothing contained in this Act shall be construed to alter, amend, repeal, or in any respect modify the Boulder Canyon Project Act (45 Stat. 557), the Boulder Canyon Project Adjustment Act (54 Stat. 747), the Colorado River Compact, the Upper Colorado River Basin Compact, or the Treaty with the United Mexican States (Treaty Series 904).

Sec. 9. Expenditures for the units of the Colorado River Storage Project may be made without regard to the soil survey and land classification requirements of the Interior Department Appropriation Act, 1954.

Sec. 10. Construction of the projects herein authorized shall proceed as rapidly as is consistent with budgetary requirements and the economic needs of the country.

Sec. 11. There are hereby authorized to be appropriated, out of any moneys in the Treasury not otherwise appropriated, such sums as may be required to carry out the purposes of this Act, but not to exceed $950,000,000.

Sec. 12. As used in this Act—
The terms "Colorado River Basin", "Colorado River Compact", "Colorado River System", "Lee Ferry", "States of the Upper Division", "Upper Basin" and "domestic use" shall have the meaning ascribed to them in Article II of the Upper Colorado River Basin Compact.

The term "States of the Upper Colorado River Basin" shall mean the States of Arizona, Colorado, New Mexico, Utah, and Wyoming.

The term "Upper Colorado Basin" shall have the same meaning as the term "Upper Basin".

The term "Upper Colorado River Basin Compact" shall mean that certain compact entered into by commissioners representing the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, and consented to by the Congress of the United States of America by Act of April 6, 1949 (65 Stat. 37) and the term "treaty with the United Mexican States" shall mean that certain treaty between the United States of America and the United Mexican States signed at Washington, District of Columbia, February 3, 1944, relating to the utilization of the waters of the Colorado River and other rivers, as amended and supplemented by the protocol dated November 14, 1944, and the understandings recited in the Senate Resolution of April 18, 1945, advising and consenting to the execution of the treaty.

Amend the title to read: "A bill to authorize the Secretary of the Interior to construct, operate, and maintain initial units of the Colorado River Storage Project and participating projects, and for other purposes."

The comments of the Department of the Army, the Department of Agriculture, and the Federal Power Commission on S. 1553 are also hereinbelow set forth in full and made a part of this report.

JUNE 14, 1954.

Hon. HUGH BUTLER, Chairman, Committee on Interior and Insular Affairs, United States Senate.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 1553, 84th Congress, a bill "to authorize

ize the Secretary of the Interior to construct, operate, and maintain the Colorado River storage project and for other purposes."

The purpose of the bill is to authorize the principal features of the Colorado River storage project and participating projects of the Bureau of Reclamation.

Comments on 3 of the major units (Flaming Gorge, Navaho, and Curecanti) in the comprehensive plan covered by S. 1553 and on the participating projects are not practicable from an engineering and economic standpoint without an up-to-date engineering and economic report. However, with respect to the 2 remaining major units (Echo Park and Glen Canyon) the Army has recently reviewed a report of the Department of the Interior and has commented that the Department that these 2 storage projects appear to be justified.

Although the Department is authorized to undertake certain examinations and surveys in the upper Colorado River Basin and has an interest in the Rio Grande Basin which is involved in the bill to the extent of the diversion contemplated in the participating projects, it appears to be not necessary for the project units proposed in the bill and any which the Department now has or might have an interest in as a result of future investigation or construction. However, because of the departmental interest in flood control, it is recommended that the bill be amended in the following manner:

(1) In section 2, page 3, line 25, after "Provided," insert: "That allocation of money for flood control as nonreimbursable costs shall be determined by the Secretary after consultation with the Chief of Engineers and the Secretary of the Army and any necessary investigations or studies therefor may be performed under a cooperative agreement with the Secretary of the Army: Provided further:"

(2) In section 1, page 3, lines 8 and 14, after "affected States," insert: "and the Secretary of the Army:".

In connection with S. 1553 the attention of your committee is invited to substitute draft legislation which was submitted by the Secretary of the Interior to the Congress on April 1, 1953. The substitute draft bill is intended to bring the proposed legislation into full conformity with the project report referred to above in that it would authorize only those units of the Echo Park and Glen Canyon storage projects and would grant prior sanction and authorization only for participating projects. The Department of the Army considers the draft bill as being preferable to S. 1553 and offers no objection to the authorization of the improvements proposed in the substitute draft legislation. However, the insertion suggested in (1) above would apply as well to the substitute, with the exception that the language would be inserted in section 3, page 4, line 8. Also, the Department is inclined to feel that section 1 (c) of the Flood Control Act of 1944, which provides for the undertaking of engineering and economic studies by the Secretary and providing for comment by those parties, should be applicable to supplemental reports on participating projects, whereas the last sentence of section 1 of the draft bill provides that the section will not be so applicable.

The Reagan of the Budget advises that there is no objection to the submission of this report.

Sincerely yours,

ROBERT T. STEVENS,
Secretary of the Army.

FEDERAL POWER COMMISSION,

Re S. 1555 (administration's substitute draft), 84th Congress, 1st session.

Hon. HUGH BUTLER,
Chairman, Committee on Interior and Insular Affairs,
United States Senate, Washington, D. C.

DEAR MR. CHAIRMAN: With reference to your request for the views of this Commission on the bill, S. 1553, 84th Congress, "to authorize the Secretary of the Interior to construct, operate, and maintain the Colorado River storage project and participating projects, and for other purposes," the Commission desires to bring to the attention of the committee that reports on both the original bill and on the administration's substitute draft bill S. 1553 were submitted to the Bureau of the Budget for clearance.

We have just been advised that there is no objection by the Bureau of the Budget to the presentation of the Commission's report on the administration's
Colorado River Storage and Participating Projects

Substitute draft bill to the Committee on Interior and Insular Affairs. Enclosed herewith are three copies of this report.

Sincerely yours,

Jerome K. Kuykendall, Chairman.


A bill to authorize the Secretary of the Interior to construct, operate, and maintain the Colorado River storage project and participating projects, and for other purposes.

Section 1 of the bill would authorize the Secretary of the Interior to construct, operate, and maintain the Echo Park and Glen Canyon units of the Colorado River storage project, consisting of dams, reservoirs, powerplants, transmission facilities, and appurtenant works. It would likewise authorize participating reclamation and power projects provided that the authority to construct any such participating project shall not become effective until the Secretary of the Interior has determined that the economic justification for such project and appropriate documentation in the form of a supplemental report, has certified to the Congress through the President that, in his judgment, the benefits of the project will exceed the costs. Such supplemental reports would not, however, be subject to section 1 (c) of the Flood Control Act of 1944 (58 Stat. 857) unless it provides that the Secretary of the Interior, in making investigations and reports on works for irrigation and purposes incident thereto, shall give the affected State or States opportunity to cooperate in the investigations.

Section 2 of the bill declares it to be the intent of Congress to authorize further units of the storage project and new participating projects upon the basis of the data which may be made available to it in the future in accordance with this bill and also in conformity with beneficial consumptive use provisions of article III of the upper Colorado River Compact. The costs of any participating projects thus authorized shall be amortized in accordance with the Federal reclamation law and this bill.

Although the Commission does not have sufficient data to enable it to weigh the relative merits of the Echo Park project and alternative projects in terms of their economic justification, the Secretary, based upon a consideration of the power features involved, believes that an authorization of the Echo Park and Glen Canyon Dam and Reservoir projects as provided for in this bill is desirable for inclusion in the initial program for future development of the upper Colorado River Basin. The Echo Park project is located in the upper Colorado River Basin and is favorably located for assisting in serving powerloads of the northerly part of the upper Colorado River Basin, and the Glen Canyon project is favorably located for assisting in serving powerloads of the southerly part of the upper Colorado River Basin. With respect to the participating reclamation and power projects which would be conditionedly authorized by this bill, the Commission agrees that such action is very properly made to be determined upon the findings and recommendations of supplemental reports dealing with the economic justification for such projects. It further believes, however, that the public interest requires or justifies the exemption of such supplemental reports from the opportunity for State cooperation afforded by section 1 (c) of the Flood Control Act of 1944.

Section 4 provides that revenues in excess of operating needs shall be paid annually to the general fund of the Treasury to return the costs of each unit, participating project, or any separable feature thereof which are allocated to commercial power within a period not exceeding 20 years from the date of completion of such unit, participating project, or separable feature thereof. It also provides that revenues in excess of operating needs shall be paid annually to the general fund of the Treasury to return the costs of all unamortized balance of the investment (including interest during construction) in the commercial power features of each unit, participating project, or any separable feature thereof at a rate determined by the Secretary of the Treasury as of the time the first advance is made for initiating construction of said unit or project. The repayment provisions correspond generally with the Commission's established practice in analyzing and evaluating Federal multiple-purpose power projects of assessing the power investments in not to exceed 20 years from the "in-service" date, with interest, at the rate of 2½ percent.

Section 5 provides that upon completion of each unit, participating project, or separable feature thereof, the Secretary of the Interior shall allocate the total costs of construction of said unit, project, or feature to power, irrigation, or other purposes authorized under reclamation law. The Commission believes that the bill should provide for such cost allocations to be made in conformity with those standards and procedures which may have been established for interagency use at that time.

Section 5 also provides that the Secretary would be required to report to the Congress, on January 1 of each year, beginning with the fiscal year 1955, upon the progress of the rate schedules and the cost of operating, and maintaining the Colorado River storage project and the participating projects. The Secretary's report would be prepared to reflect accurately the Federal investment allocated at that time to power, irrigation, and to other purposes, the progress of return and repayment thereon, and the estimated rate of progress year by year, in accomplishing full repayment.

Assuming that the Colorado River Basin constitutes the logical market area for the power from the Glen Canyon project, studies by the Commission staff indicate that the power from this project could be utilized in the lower basin in about 10 years from the time that the first unit would become available.

Based upon the assumption that the upper Colorado River Basin constitutes the market for the power from Glen Canyon and Echo Park, the staff studies indicate that it would require about 20 years to utilize the power from both projects.

In several statutes (e.g., sec. 5, act of December 22, 1944, 58 Stat. 587; act of July 31, 1950, 64 Stat. 887) Congress has provided that the rate schedules for power sales from certain Federal power projects shall be subject to approval by the Federal Power Commission. The Commission is of the opinion that such rate control should be provided in this instance and that it should be authorized not only to approve the initial rate schedules, but should have authority to review the rates at appropriate intervals and prescribe rates or conditions which will return the United States the costs which are properly chargeable to power under the criteria laid down by Congress. If rate supervision is thus given, the Commission is of the further opinion that it should be authorized to make the final allocation of costs among water and power purposes as prescribed by Congress. In this connection, the Commission points out that it is not an operating agency, but was created by Congress as its staff function which is directly related to the rate supervision here recommended.

The Commission favors this legislation as a desirable means for achieving fuller development of the water resources of the upper Colorado River Basin and that the Commission has the appropriate responsibility to the action proposed. It is provided as herein recommended to give the Commission supervision over rates and final authority over cost allocations, and provided further that it is consistent with supporting Federal power projects, and is consistent with the Federal Power Act of 1944, relating to opportunity for State participation, applicable to supplemental reports of the Secretary of the Interior on participating projects.

FEDERAL POWER COMMISSION.

By Jerome K. Kuykendall, Chairman.

H. H. Butler, Chairman, Committee on Interior and Insular Affairs.

United States Senate.

DEAR SENATOR BUTLER: This is in reply to your request for a report on S. 1555, a bill to authorize the Secretary of the Interior to construct, operate, and maintain 5 specified initial units of the Colorado River storage project and 15 specified participating projects, consisting of dams, reservoirs, powerplants,
transmission facilities, and appurtenant works. It would declare the intent of the Congress to authorize additional units of the Colorado River storage project and new participating projects. All projects would be treated and accounted for as one project. The bill would also provide for creation of revenues of a nonreimbursable special continuing fund to be available for the Secretary of the Interior for making studies and investigations relating to the development, conservation, and utilization of the waters of the upper Colorado River Basin. The Secretary of the Interior would be authorized to plan, construct, and maintain public recreational facilities on lands withdrawn or acquired for Colorado River storage project units and participating projects, except on lands in Indian reservation.

The Bureau of the Budget has advised us that the Secretary of the Interior submitted to the Congress on April 1, 1954, a substitute draft bill. This administration substitute draft bill would authorize the Secretary of the Interior to construct and maintain 2 specified initial units of the Colorado River storage project and 11 specified participating reclamation projects, consisting of dams, reservoirs, powerplants, transmission facilities, and appurtenant works; provided that authority to construct any of the listed participating projects would not become effective until the Secretary of the Interior had requested the economic justification of such project and certified in a supplemental report to the Congress that the benefits therefrom would exceed the costs. Each supplemental river act would include (a) a reappraisal of the prospective direct agricultural benefits of the project, made by the Secretary of the Interior in cooperation with the Secretary of Agriculture, and (b) a reevaluation of the nondirect benefits of the project. The bill declares the intent of the Congress in the future to authorize further units of the Colorado River storage project, additional phases of participating projects included in the bill, and new participating projects as additional information becomes available and needs are indicated, and directs that no unit of the bill (that costs of any participating project authorized in the future would be amortized from its own revenues) would be undertaken to the extent consistent with provisions of the bill and reclamation law. The bill would authorize the Secretary of the Interior to investigate, plan, construct, operate, and maintain public recreational facilities on lands withdrawn or acquired for the Colorado River storage project and participating projects.

Since both S. 1555 and the administration substitute draft bill relate primarily to Department of the Interior authority this Department takes no position regarding enactment of the bills.

However, the Department of Agriculture has a responsibility, commensurate with its national responsibilities, in the agricultural phases of the development, conservation, and utilization of the waters of the upper Colorado River Basin, to participate in the planning, operation, and maintenance of such agricultural benefits of such project units or participating projects that are within national forest boundaries.

Accordingly, in the event favorable consideration is given to legislation, we recommend (1) that it provide, as the administration draft bill provides for 11 initial participating projects, for cooperation by the Department of Agriculture with the administration substitute draft bill. We recommend (2) that it provide for the Secretary of Agriculture to construct projects, effective of the proposed agricultural phase of the development of the basin, and (3) that it provide that the Secretary of Agriculture shall be granted the same authorities as the Secretary of the Interior under the provisions of section 9 of S. 1555 and section 7 of the administration substitute draft bill when any unit or project is within or partly within the boundary of a national forest.

The Bureau of the Budget advises that there is no objection to the submission of this report.

Sincerely yours,

E. T. Benson, Secretary.

[11th Cong., 2d sess.] [Report No. 1774]

A BILL To authorize the Secretary of the Interior to construct, operate, and maintain the Colorado River project and participating projects, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, in order to initiate the comprehensive development of the water resources of the Upper Colorado River Basin, the Congress, in the exercise of its constitutional authority to provide for the general welfare, to regulate commerce among the States and with the Indian tribes, and to make all needful rules and regulations respecting property belonging to the United States, or to any person under contract or license, it is necessary to authorize the Secretary of the Interior, and in the construction of the proposed developments, to regulate the flow of the Colorado River, storing water for beneficial consumptive use, making it possible for the States of the upper basin to utilize, consistently with the provisions of the Colorado River Compact, the apportionments made to and among the States of the Colorado River Basin as specified in the Colorado River Compact and the Colorado River Storage and Participating Projects Act, respectively, providing for the reclamation of arid and semiarid land, the control of floods, the improvement of navigation, and the generation of electric power for other purposes, that an incident at the foregoing purposes, be authorized the Secretary of the Interior (herein called the Secretary) (1) to construct, operate, and maintain the following initial units of the Colorado River storage project, consisting of dams, reservoirs, powerplants, transmission facilities, and appurtenant works; provided that the benefits of each such project will exceed its costs, and that the financial reimbursability requirements of this Act and of new participating projects as authorized by the Secretary, shall be granted and such project units or participating projects that are within national forest boundaries.

(a) A reappraisal of the direct agricultural benefits of the project will exceed its costs, and that the financial reimbursability requirements of this Act and of new participating projects as authorized by the Secretary, shall be granted and such project units or participating projects that are within national forest boundaries.

(b) It shall be made to the President by the Secretary of the Interior in cooperation with the Secretary of Agriculture, and (c) a reevaluation of the non-direct benefits of the project, made by the Secretary of the Interior in rotation with the Secretary of Agriculture, and (d) that the project will exceed its costs, and that the financial reimbursability requirements of this Act and of new participating projects as authorized by the Secretary, shall be granted and such project units or participating projects that are within national forest boundaries.

(c) It shall be made to the President by the Secretary of the Interior in cooperation with the Secretary of Agriculture, and (d) a reevaluation of the non-direct benefits of the project, made by the Secretary of the Interior in cooperation with the Secretary of Agriculture, and (e) that the financial reimbursability requirements of this Act and of new participating projects as authorized by the Secretary, shall be granted and such project units or participating projects that are within national forest boundaries.
within a period not exceeding fifty years, in addition to any development expenditures authorized by law, from the date of completion of such unit, participating project, or separable feature thereof, or, in the cases of the Poina project and of Indian lands, within a period consistent with other provisions of law applicable thereto.

(a) The interest rate applicable to each unit of the storage project and each participating project shall be determined by the Secretary of the Treasury as of the time the first advance is made for initiating construction of said unit or project. Such interest rate shall be determined by yield to maturity on the basis of daily closing market bid quotations during the month of June next preceding the fiscal year for which said appropriation is made, on all interest-bearing marketable public debt obligations of the United States having a maturity date of fifteen or less years, or any separable feature thereof, and the last day of said month, and by adjusting such average annual yield to the nearest one-eight of 1 per cent.

(b) All reports and estimates shall be submitted to the Congress annually for all operations financed by the Basin Fund.

Sec. 5. Upon completion of each unit, participating project, or separable feature thereof, the Secretary shall allocate the total costs (excluding any costs covered by section 7 of this Act) to the project, or feature to power, irrigation, municipal water supply, flood control, navigation, or any other purposes authorized under reclamation law. Allocation of the costs of construction, operation, and maintenance of nonreimbursable purposes shall be nonreturnable under the provisions of this Act. On January 1 of each year the Secretary shall report to the Congress for the previous fiscal year, beginning with the fiscal year 1956, upon the status of the revenues from and the cost of constructing, operating, and maintaining the Colorado River storage project and the participating projects. The Secretary's report shall be prepared to reflect accurately the Federal investment allocated at that time to power, irrigation, and other purposes, the progress of the work, and repayment thereof, and the estimated rate of progress, year by year, in accomplishing full repayment.

Sec. 6. The hydropower facilities authorized by this Act to be constructed, operated, and maintained by the Secretary shall be governed by Federal power laws and the applicable State laws. The Secretary shall ensure that the hydropower facilities will be developed and operated in accordance with the primary purposes of such facilities as determined by the Secretary and in accordance with all applicable laws, including any applicable law requiring the Secretary to take into account the importance of the project to the development of the river basin, the importance of the project to the people of the basin, and the importance of the project to the development of the Nation.

Sec. 7. In connection with the development of the Colorado River storage project and of the participating projects, the Secretary is authorized and directed to establish, construct, operate, and maintain facilities for the withdrawal of water from the River to be allocated at that time to power, navigation, and other purposes, the progress of the work, and repayment thereof, and the estimated rate of progress, year by year, in accomplishing full repayment.

Sec. 8. Nothing contained in this Act shall be construed to alter, amend, repeal, construe, interpret, modify, or be in conflict with, any provision of the Boulder Canyon Project Act (47 Stat. 388) or the Canyon Project Act Readjustment Act, or any contract lawfully entered into under the Reclamation Act of June 17, 1902 (38 Stat. 500), as amended, or in any other Federal law, State law, or contract, or to affect any rights with respect to the withdrawal of water from the river basin.

Sec. 9. Expenditures for the Glen Canyon and Echo Park units of the Colorado River storage project may be made without regard to the soil survey and
MINORITY VIEWS OF SENATOR THOMAS H. KUCHEL

I have given careful study to S. 1555 as reported by the committee and I am constrained to recommend against its enactment.

In thus opposing this bill I want to emphasize at the outset that my State and indeed all States of the lower basin are strong proponents of the highest ultimate development of our natural resources. As a member of the committee I well recognize that the States of the lower basin, and particularly California, have benefited from substantial reclamation development. I believe that the upper basin States are entitled to the same equitable treatment as long as the existing water rights of other States are not jeopardized. California and Arizona have both benefited from the general reclamation policy which permits power revenues to be used to assist irrigation development within reasonable limits. In the evaluation of upper basin projects the same principles should apply, and I emphasize that I favor prompt development in the upper basin when the water-supply situation is clarified.

I would wish that I could wholeheartedly support this legislation which has, in good faith, been proposed by the States of the upper basin. There are, however, grave weaknesses in the concept of the measure which militate against it and therefore I oppose it on several grounds: on the legal aspects involved, on the economic bases used, and on the policy questions raised.

LEGAL QUESTIONS

I. The proposed bill assumes interpretations of the Colorado River compact which should be authoritatively reviewed by the Supreme Court before proceeding to invest large sums of Federal money in water-development projects in the upper basin of the Colorado River.

Testimony before the Senate committee showed clearly that there are marked differences of opinion with respect to interpretations of the Colorado River compact between representatives of the various parties to that compact.

Among the differences in interpretation of the Colorado River compact which could have substantial effect on the availability of water for the Colorado River storage project are several issues. These questions are complex, and I shall attempt to state them as simply as possible, at the risk of some oversimplification.

I propose that the only obligation to the lower basin of the upper basin States is the requirement that 75 million acre-feet of water be delivered in any given 10-year period. Likewise, the assumption of the plan of the Bureau of Reclamation seems to be that the upper basin may use 9 million acre-feet of water in 1 year, so long as it uses only 6 million acre-feet in some other year, thus averaging 7,500,000 acre-feet per year. These operating proposals should be worked out on the basis of a definitive resolution of the legal questions such as this before a comprehensive project like this
one is undertaken. The litigation between Arizona and California now underway may furnish the answers to these questions. Meanwhile, a decision in the United States Supreme Court to make all Colorado Basin States parties to the proceedings.

The plan of the Bureau appears to include the storage of large amounts of water per year during the filling period. California questions whether this storage can exceed 7,500,000 acre-feet per year when taken into consideration with other uses in the upper basin. This is an important legal question with a direct bearing on this proposed legislation.

If the water to be stored was shown to be water in excess of the apportionments, can they be stored so as to deny the lower basin the opportunity to appropriate such surplus waters? The largest proposed reservoir is that at Glen Canyon. None of the water stored at Glen Canyon and certain other proposed reservoirs can ever be used, physically, for agricultural or domestic purposes in the upper basin. Such water is the residue after consumptive uses in the upper basin. Article 4 (b) of the Colorado River compact authorizes impounding water for the generation of power but expressly provides that such impounding shall be subservient to the use of water for agricultural and domestic purposes. The right of the Reclamation Bureau to release these waters so as to maintain power generation, if those waters are in fact needed for agricultural and domestic uses in the lower basin, appears very doubtful.

These are only a few of the differences in interpretation which exist among the parties to the Colorado River compact. The financial and legal soundness of the proposed project seems to hinge upon these issues. Therefore, it seems to me that these conflicts should be resolved before proceeding with the comprehensive program proposed in S. 1555.

Perhaps no one of the legal considerations stated above would justify further delay in authorizing the projects covered within S. 1555. However, taken together, it appears to me that public policy dictates that no such plan for development should be authorized until these questions have been resolved.

II. There are three types of extensive claims to Colorado River water which are alleged to have priority over compact apportionments and which, if sustained, could mean that there is not an assured water supply for existing appropriations of Colorado River water, to say nothing of providing an assured water supply to new projects.

(A) The Mexican burden.—The Mexican Water Treaty requires delivery of 1,500,000 acre-feet of Colorado River water at the border. Article III (d) of the compact would include no water at all for Mexico and the upper basin would be required to release water to make up one-half of any deficiency at the border in addition to the 75 million mentioned above.

On the other hand if California is sustained, then presumably, there might be surplus waters in the lower basin which would be applied to satisfy the Mexican burden before calling on the upper basin for additional deliveries.

The judicial determination of this issue could thus have an important bearing on the water supply for the proposed Colorado River storage project.

In this commenting on the Mexican treaty water burden I want to refer to the fact that Representatives of my State have, consistently and long, pointed out the adverse effects of the Mexican treaty upon American interests. This is clear when it is recalled that upon Senate consideration of the treaty on April 18, 1945, the two California Senators voted against ratification. Now the prodigious guaranty in the treaty must be considered; a guaranty of water to Mexico of twice what that country has ever used in the state of nature. A guaranty on the Colorado River is a most difficult burden to undertake.

(B) Indian rights.—Article VII of the Colorado River compact provides nothing in the compact shall be construed as affecting the obligations of the United States to Indian tribes. Article VII of the upper basin compact provides that use by the United States or its Indian wards shall be chargeable as use against the State in which the use is made. In the pending suit of Arizona v. California, California takes the position that Indian uses are charged to State apportionments under the Colorado River compact. The United States has intervened in the lawsuit on behalf of the Indians and Indian tribes in the lower basin. The United States has taken the position that the Indian water rights are in no wise affected by the Colorado River compact. The Federal Government has set forth claims of Indian water rights amounting to over 1,700,000 acre-feet of Colorado River water, of which 1,566,250 are in Arizona.

Apparently the United States will assert that Indian claims must be satisfied first, irrespective of compact apportionments, and the compacting States have simply divided the residue after Indian claims are satisfied. Furthermore, it is understood that the United States contends that Indian water rights date back at least to the date of establishment of Indian reservations and that these rights are not divested through nonuse. In other words, Indian rights are claimed by the United States to be paramount rights which can be asserted at any time without regard to the fact that non-Indians have long since put the water to beneficial use. These assertions are diametrically opposed to the general principles of water law in our Western States. If sustained, in view of the large areas of Indian lands in the States of the Colorado River Basin, it is apparent that these extravagant claims, asserted by the United States, might well render the Colorado River compacts meaningless pieces of paper.

The participating projects proposed to be authorized by S. 1555 could never be secure in their water rights, nor could any other project in the basin be secure until this issue has been resolved.

Testimony before the subcommittee further disclosed the fact that there is an unsettled difference of opinion within the executive depart-
ments as to the priority of Indian rights. Apparently not only is there such a difference of opinion between departments but also within the Interior Department. Certainly this amounts to the need for further examination, for a decision in favor of Indian claim priorities would have a grievous effect upon this legislation.

(C) Independent rights of the United States.—In its petition of intervention the United States also claims independent rights for uses of the Bureau of Land Management, the Forest Service, the Park Service, Fish and Wildlife, and other Federal functions. The Federal Government has denied that all of its rights to the use of Colorado River water are subject to the Colorado River compact. No statement of the magnitude of these additional claims has been made. I do know that the Department of Justice for a number of years has claimed rights to the use of unappropriated waters which are not limited by State law or interstate compacts. I have been told that attorneys of the Department of Justice have been instructed not to comply with State, judicial or administrative procedures leading to the acquisition of water rights in States of the Colorado River Basin. Apparently the Department of Justice takes the view that the United States has paramount rights to the use of water regardless of the traditional provisions of section 8 of the Reclamation Act of 1902. If such views were sustained by the courts, then there would be serious doubt with respect to the assured water supply for projects for either existing irrigators or future irrigation uses in both the upper and lower basins. This cloud should be removed, either by congressional action or judicial decision, before proceeding with comprehensive development such as that contemplated by S. 1555.

III. An adequate study of the proposed project’s effect on the quality of downstream water supply should be made before the Congress authorizes a large-scale development of the upper Colorado River Basin. States of the lower basin have long been concerned about the effect of large-scale depletions of the Colorado River on the quality of water in the lower basin. Section 2 (d) of the Boulder Canyon Adjustment Act (54 Stat. 774) established the Colorado River development fund with $500,000 per year from the Colorado River Dam fund.

This money was for the studies and investigations necessary to formulate a comprehensive plan for the utilization of Colorado River water. Section 2 (d) expressly stated that such investigations should include “studies of quantity and quality of water and all other relevant factors.”

Out of these investigations came the comprehensive plan for the Colorado River storage project, now pending before the Congress. Yet testimony of Bureau of Recanation witnesses showed clearly that almost no attention has been given to the question whether the proposed large-scale depletions would increase the salinity of lower basin water. I believe this project should not be authorized until the question of water quality has been thoroughly studied. To me this is a matter of good faith with the people of the lower basin.

IMPLIED POLICY DECISIONS

The legislation in effect establishes long-range policies which should not be declared hastily and which have not received careful consideration. Before any such measure is approved, the Senate should deliberate and weigh the desirability of approving certain procedures which are open to strong objections and have been criticized frequently in the past.

(A) Delegation of authority.—By delegating authority to the Secretary of Interior to proceed with projects which have not been thoroughly examined and on which no conclusive reports are available, this measure would result in issuance of a blank check of unknown dimensions. For a number of years, the Congress has endeavored to reverse the unfortunate course upon which the Government embarked of making liberal delegations of authority to the executive branch which in the long run oblige the Congress to make continuing appropriations of substantial sums. A degree of progress has been achieved in reversing this course. The present legislation would be tantamount to a return to the procedure which proved disadvantageous and costly.

While estimates of the sponsors are that cost of the specified developments would be approximately $1,400 million, there is no limitation on the expenditures or contracting authority. Furthermore, the legislation contemplated an unknown number of additional developments at some indefinite future time and gives implied approval in advance to works which may be deemed desirable. The language of the bill leaves open to debate the question whether specific authorization for each such possible project would be required from the Congress.

(B) Departure from precedent.—A major departure from the philosophy embodied for more than a half-century in the reclamation laws is, I believe, envisioned by this bill. The Congress, in event it wishes to substitute a subsidy principle for the “feasibility” basis on which other irrigation works have been constructed, certainly should ponder and debate the extent to which it feels it can safely go without jeopardizing the national interest.

In recent years, arguments have been advanced that “low-cost projects” have all been built and that a new financial formula must be followed in carrying on the program of utilizing natural resources of the Western States. Witnesses before the subcommittee aver that this bill has all the earmarks of adopting such a different formula.

According to all the testimony and reports, an extraordinary percentage of the proposed development is dependent upon subsidies. Only one of the major projects to be authorized is acknowledged capable of standing on its own feet financially.

While this proposal is put forward as a water and land development measure, the only showing of economic justification in the evidence is based solely on power revenues. This is a remarkable innovation, especially since the Colorado River compact clearly reflects the concept as indicated in article IV (B) that use of the stream for hydroelectric purposes is a secondary reason for the seven-State agreement.

Even after the usual allowance for nonreimbursable items, the feasibility of the program is demonstrated only after recourse to a repayment plan of unusual character. Reimbursement of the Federal Treasury would depend directly upon (1) allocation of a large portion of construction costs to irrigation on an interest-free basis; (2) postponement of the beginning of repayments for approximately 50 years; and (3) subsidization of the more costly power units by surplus revenues earned by the low-cost Glen Canyon unit. Burdensome interest charges never would be repaid from project revenues, with
the result that general taxes would be required to finance a substantial portion of the development.

The effort to commit Congress to this blanket approval procedure and an unprecedented accounting method has resulted in the submission of a bill which contains an admission that the eventual cost cannot even be conjectured. In proposing authorization for the 14 "participating" projects, the sponsors concede that construction would not proceed "until the Secretary has reexamined the economic justification" of each proposed development. Such piecemeal rewriting of the reclamation laws and open-ended delegation of authority can hardly be considered thoughtful legislating.

(C) Conflicting interests.—There is another exceedingly controversial policy issue which cannot be ignored. While the prospects for settling the dispute are remote, the fact must be recognized that serious conflicts of opinion have been provoked by the proposal to construct the Echo Park Dam unit of this program and heated controversy has occurred about the effect of such authorization on the national park system.

Earnest protests have been registered that this feature would act as an entering wedge for interests which have but slight concern about perpetuating historic areas, scenic beauty, and geological phenomena. I cannot overlook the fact that conservationists and related groups, all of high repute, voiced grave fears that authorization of Echo Park Dam would constitute an implied abandonment of the policy of setting aside for future generations portions of our country which are felt to have unusual recreational, educational, and inspirational values.

The importance of these and other policy questions raised by this legislation is emphasized by the fact that the Hoover Commission, established by this Congress, currently is making investigations for the guidance of the United States in future efforts to utilize and develop our natural resources. Legislation with as far-reaching consequences certainly should not be enacted without the benefit of the findings and recommendations of this Commission.

CONCLUSION

For the reasons outlined, I am compelled to oppose passage of this bill as reported. While arriving at this position, I feel that the committee should be commended for including in the bill the provision permitting judicial settlement of possible serious differences between States in event this program is carried out. The bill does, I am gratified to observe, assure a fair means of resolving potential conflicts by extending permission to any State of the basin to bring suit against the Secretary of the Interior and waiving the immunity of the United States from inclusion in any proceeding in the Supreme Court in case legal action appears the only way to enforce applicable provisions of the Colorado River compact and other obligations relating to storage and release of water from reservoirs on the Colorado River. Nevertheless, this highly desirable safeguard for the interests of all parties does not remedy the numerous defects, dubious policies, and damaging omissions which characterize this proposed legislation.

THOMAS H. KUCHEL.