

chart by Mr. Turner identified six major wet cycles. The average length of these major wet cycles was about 24 years.

In addition to major wet and dry cycles, the chart prepared by Mr. Turner shows a large number of minor wet and dry cycles. The chart also shows the current drought starting in 1930. The major conclusion that can be drawn from Mr. Turner's chart is that major droughts in the past have averaged about the length of our present drought and have been followed by major wet cycles.

A study of the runoff since 1906 of other major rivers in the West—the Missouri, Columbia, and Sacramento—indicates no general or unusual trends or reasons for discarding the period of record from 1906 to 1922. The chart back here shows the trends in these basins and in the Colorado and I think it is interesting that the dips and the bends are similar.

In our analyses of lower basin water supply, the abnormally high releases from Glen Canyon during the high runoff periods are, for the most part, stored and regulated in Lake Mead for use in the lower basin. A significant part of the water supply we have projected for the central Arizona project is derived from these abnormally high releases, or upper basin spills. The availability of such spills would not be affected by the reservoir operating criteria included in H.R. 3300 and in S. 1004 as passed by the Senate.

All of our reservoir operation studies have followed closely the principles of these criteria, differing only in minor details which have but an inconsequential effect in estimating water supplies.

We believe that to base water supply projections for the Lower Basin on the longest period of runoff record is not only technically correct but also the most logical and defensible procedure.

Mr. HOSMER. Mr. Chairman, are you working on the 14.9 assumption, figure?

Secretary UDALL. This is our current figure, brought up to date.

Mr. HOSMER. That is the one you are discussing here and the one on which the document is based?

Secretary UDALL. That is so.

There appears to be substantial agreement as to the extent of present upper basin depletions. There is disagreement, however, as to the rate at which future upper basin depletions will occur. There is disagreement as to the extent of responsibility, if any, of the upper basin to meet a part of the Mexican water treaty obligations.

The basic differences in projection of upper basin depletions are as follows:

[In thousands of acre-feet]

Year	Bureau of Reclamation estimate	Tipton report estimate
1965.....	2,787	2,777
1975.....	4,220	4,513
1990.....	5,100	16,342
2000.....	5,430	17,351
2030.....	5,800	17,891

¹ Tipton report demonstrates that upper basin's art. III(d), Colorado River compact obligation, limits assured supply for upper basin to 6,300,000 acre-feet annually, exclusive of its Mexican treaty obligation, if any.

We agree that land and other resources in the upper basin could be physically developed to deplete water at the rate the upper basin estimates. However, it does not appear likely in the judgment of our