

**Yakima River Basin
Water Enhancement Project, Washington**

Damsite and Structure Review Team Report

**Bureau of Reclamation
Boise, Idaho
January 1984**

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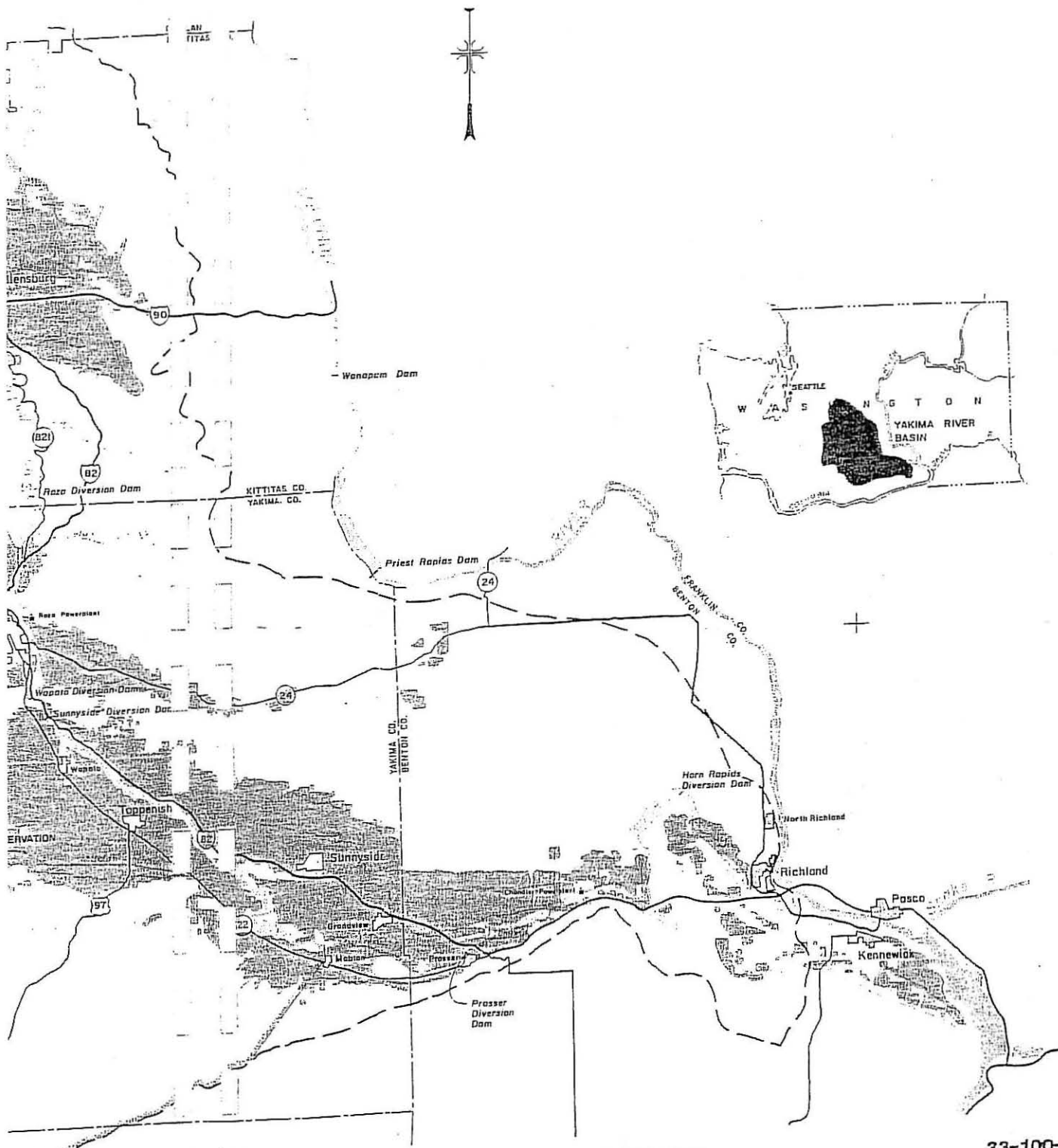
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MAPS

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Potential Reservoir Sites (33-100-444)	Follows Page 13
East Selah Reregulating Reservoir (33-100-445)	Follows Page 13





DAM SITE AND STRUCTURE REVIEW TEAM REPORT
YAKIMA RIVER BASIN
WATER ENHANCEMENT PROJECT, WASHINGTON

TRANSMITTAL

Organization of Team and Purpose of Report

The following report was prepared by the Damsite and Structure Review Team established to fulfill the requirements of reclamation Instructions, Part 133, which state in part that "As a part of the plan formulation process, a Damsite and Structure Review Team shall review damsites to be included in the feasibility report. The team will be composed of regional and project personnel, an earth dams designer, a concrete dams designer, and a geologist from the Engineering and Research Center."

A Damsite and Structure Review Team comprised of the following members was formed for this project:

John Doty	E&R Center	Western Geology Branch
Thomas Luebke	E&R Center	Embankment Dams Section
Harold Blair	E&R Center	Concrete Dams, Spillways, and Outlets Section
Dan Magleby	Regional Office	Geology Branch
Al Kennedy	Regional Office	Planning Engineering Branch
Gary Kitterman	Yakima River Basin	Civil Engineer (Study Team Leader)

Warren Dunkin, Plans Coordination and Engineering Branch, Division of Planning Technical Services, E&R Center, accompanied the team.

Travel period (dates): November 1, 1982, through November 8, 1982. E&R Center participants arrived Sunday evening, October 31, 1982, because commercial travel schedules into Yakima are limited.

Places or offices visited: Potential reservoir sites in the Yakima River basin and the Yakima Project Office.

Synopsis of Trip.--Regional and E&R Center personnel met in the conference room of the Yakima Project Office the morning of November 1, 1982. Also participating in the meeting were Steve Mitchell, Department of Ecology, State of Washington, and Onni Perala, Yakima Project Hydrologist.

Gary Kitterman, YRBWEP Study Team Leader, gave a brief history of the Yakima Project and explained the study team's report on Phase 1 of the YRBWEP feasibility study. This report identified 35 potential storage sites on the Yakima River basin. These sites were evaluated and the study recommended 11 sites for further detailed study which are scattered throughout the Yakima basin.

Onni Perala, Yakima Project Hydrologist, discussed the present operations of the Yakima project and explained the water shortages on presently irrigated lands in dry years.

The dams site review team then proceeded to inspect the 11 potential storage sites recommended for further detailed study. The purposes of the review were to:

1. Familiarize the DSRT and the D-700 coordinator with the potential reservoir sites
2. Provide the DSRT an opportunity to evaluate each site
3. Provide the DSRT an opportunity to discuss the data requirements and deficiencies related to site evaluations
4. Provide the DSRT an opportunity to divide up assignments for preparation of the team report
5. Make preliminary recommendations on the subsurface exploration program
6. Make recommendations for topographic and surface geologic mapping

Late Saturday afternoon, November 6, the DSRT returned to Wymer to look at the potential pumping plant site along the Yakima River. This was the last stop on the field inspection trips.

On Sunday, November 7, the DSRT met in the conference room of the Yakima Project Office to discuss the findings of the week's field inspection trips.

This report is a result of the Yakima River Basin Water Enhancement Project Damsite and Structure Review Team reviews.

SUMMARY AND CONCLUSIONS

All 11 sites were visited and following is the type of dam recommended for each site:

- | | |
|--------------------------------------|---|
| 1. Bumping Lake Enlargement | Zoned earthfill embankment |
| 2. Cle Elum Enlargement | Earthfill embankment and dikes |
| 3. Devils Table | Eliminate, go to Mile 4 dams site |
| 4. East Selah Reregulating Reservoir | Earth dikes |
| 5. Forks | Earthfill embankment or RCC center section with zoned earthfill dikes |

- | | |
|-----------------------|--|
| 6. Horsetail | Thin arch concrete dam and rockfill dike |
| 7. Tieton Enlargement | Rockfill embankment |
| 8. Wymer | Concrete-faced rockfill embankment |
| 8a. Wymer Afterbay | Same as Wymer |
| 9. Satus | Zoned earthfill or RCC |
| 10. Simcoe | Zoned earthfill |
| 11. Tampico | Zoned earthfill or RCC |

There are many options for outlet structures and spillway structures, and these options are explained in the report.

CONCURRENCE

This report was prepared in the Planning Branch of the Regional Office under the direction of the damsite review team leader. A copy was sent to each member of the review team and their comments have been incorporated into the final report.

The continuation of planning and design of selected projected features will be in accordance with the findings, procedures, and conclusions contained in this report.

L.W. Lloyd

Regional Director
Pacific Northwest Region

A. W. Webster

Assistant Commissioner
Engineering and Research

Date

10-15-84

Date