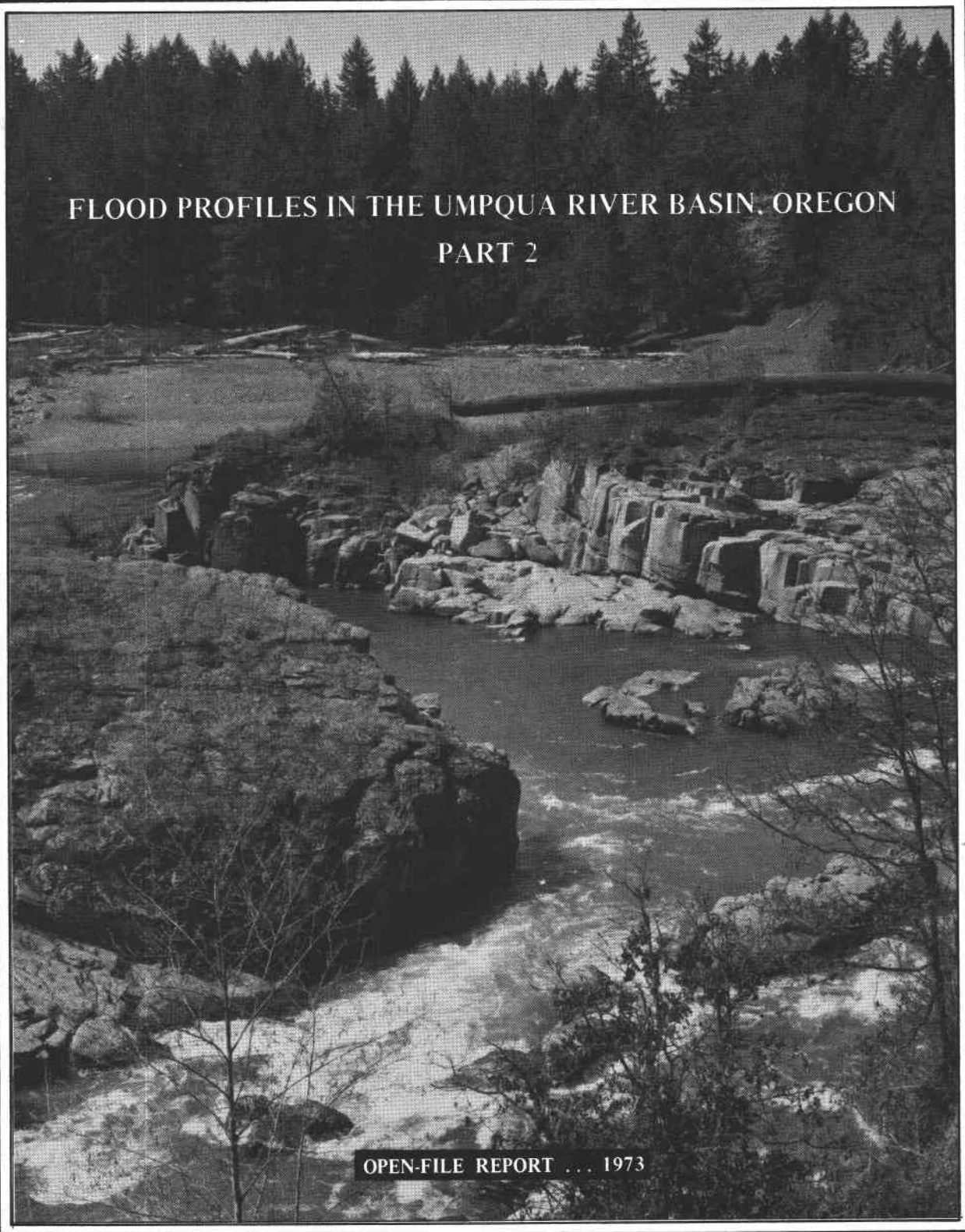
FLOOD PROFILES IN THE UMPQUA RIVER BASIN, OREGON
PART 2



OPEN-FILE REPORT . . . 1973

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

FLOOD PROFILES IN THE UMPQUA RIVER BASIN, OREGON

By Eugene A. Oster

part 2. . .

Umpqua River, Scottsburg to Hubbard Creek

North Umpqua River, Winchester to Idleyld

Prepared in cooperation with
DOUGLAS COUNTY

OPEN-FILE REPORT . . . 1973
Portland, Oregon

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FLOOD PROFILES IN THE UMPQUA RIVER BASIN, OREGON

Part 2

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INTRODUCTION

The elevations and characteristics of floods are major factors that influence land-use planning of the flood plains of any stream. As the lowlands become more intensively used, it becomes increasingly important to have a firm basis for assessing the risk of flood damage. Land-use zoning is not only a legal requirement passed by the Oregon State Legislature in 1969; it is necessary to ensure a use compatible with the risk of flood damage. The approximate areas flooded in 1955 and 1964 in the Umpqua River basin upstream from Coles Valley are shown in an interim report (Corps of Engineers, 1966). However, there are no published flood-elevation profiles. Such profiles are needed to delineate areas inundated by floods of a specific recurrence interval and to establish land-use zone boundaries.

This study was made at the request of Douglas County to develop profiles for the 10-, 25-, 100-, and 500-year floods and the December 1964 flood. This report is the second in a series of three reports that will cover approximately 300 miles of Umpqua River basin streams. Although the three reports are intended as a series, some introductory and explanatory material is repeated in each, so that each report can stand independently.

The reaches covered by this report are: Umpqua River from Scottsburg upstream to Hubbard Creek, and North Umpqua River from Winchester Dam upstream to Idleyld Park.

The reaches covered by flood profiles in the Umpqua River basin, part 1 (Oster, 1972), are: Umpqua River above Hubbard Creek, North Umpqua River below Winchester Dam, and South Umpqua River and parts of selected tributaries below Days Creek.

A profile of the Umpqua River was computed for the 100-year flood adjusted for storage in the proposed Days Creek Lake on the South Umpqua River above Days Creek. Profile elevations were also computed for the 2-year and 50-year floods and are available for inspection in the Oregon District office of the U.S. Geological Survey.

The step-backwater method was used to compute high-water profiles; photogrammetric maps and water-depth soundings were used to determine the low-water and thalweg profiles. The theory of the step-backwater method is described in detail in U.S. Geological Survey Water-Supply Paper 1869-A (Bailey and Ray, 1966) and in many textbooks on hydraulics. The method uses hydraulic equations expressed as functions of channel geometry, roughness, and slope.

This report presents the data needed to determine areas subject to inundation by the selected floods. Flooded areas can be determined by transferring the flood-profile elevations and the flooded width shown on the cross sections to the orthophoto work maps.

This study was made in cooperation with Douglas County, under the general supervision of Stanley F. Kapustka, Oregon district chief of the Water Resources Division of the U.S. Geological Survey, and under the direct supervision of David D. Harris, chief of the Hydrologic Investigations Section.

Many thanks are due to Berl Oar, of Douglas County Water Resources Survey, whose help in locating many high-water marks and bench marks greatly expedited the collection of field data. Douglas County also furnished stage readings obtained by the National Weather Service on the North Umpqua River at Winchester Dam. These readings were of great value in developing a stage-discharge relation to begin the step-backwater computations, and are much appreciated.

Several people on the district staff of the U.S. Geological Survey contributed much patient work, without which the presentation of this report would have been impossible. Those deserving special recognition and praise are Antonius Laenen for his help with computer processing of the data; Alexander Gonsalves, who prepared the illustrations; and Nyra Johnson, who typed and edited the manuscript.

DESCRIPTION OF THE STUDY REACHES

The study reach on the Umpqua River begins at the highway bridge in Scottsburg and extends 71 miles upstream to the mouth of Hubbard Creek (fig. 1). The river is deeply entrenched, and the valley plains are narrow, ranging from a few hundred feet to about half a mile wide. Except for the towns of Elkton and Scottsburg, the reach is sparsely populated. The arable flood-plain lands are used for hay meadows and orchards. The upland hills are densely covered with conifer forest. Average channel slope ranges from 3 to 5 feet per mile.

The study reach on the North Umpqua River begins at Winchester Dam and extends 27 miles upstream to Idleyld Park (fig. 1). The river is deeply entrenched and flows through canyons that connect valleys whose flood plains are generally less than a quarter of a mile wide. Channel slope averages 11 feet per mile. The upland hills from Winchester to Glide are grass covered, with scattered stands of deciduous trees. Upstream from Glide the grasslands and oak thickets merge into conifer forest. In the valleys near Glide there are small orchards and cultivated hay meadows.

FLOODS IN THE UMPQUA RIVER BASIN

The highest annual flows in the Umpqua River basin usually occur from November through March as a result of heavy winter rains augmented by snowmelt. Annual peak flows for gaging stations on the Umpqua and North Umpqua Rivers are shown in tables 1 to 3. At the gaging station near Elkton, the flood of December 1964 reached a stage 6.5 feet higher than the historic flood of 1861, which was equaled by the flood of December 1955. On the North Umpqua River the flood of 1964 was the highest since at least 1906, as shown by streamflow records at several sites from near the mouth to above Idleyld Park.

A stage hydrograph of the December 1964 flood at the gaging station near Elkton is shown in figure 2. Because the recording instruments were submerged a few hours before the peak, the recession of the flood is estimated by comparison to the gage record for South Umpqua River near Brockway.

Steel bridge girders found in the Umpqua River 4½ miles downstream from Elkton bear mute testimony to the destructive power of floods. The county road department reports (oral commun., July 17, 1973) that these girders were lost during reconstruction of the Beckley Bridge in Elkton during 1927 and were carried a quarter of a mile downstream by the flood of 1927. Succeeding floods moved them farther downstream. Several bridges in the Umpqua River basin were severely damaged or destroyed during the flood of December 1964.

Flood-frequency curves for the gaging stations on the Umpqua and North Umpqua Rivers are shown in figure 3. The curves were developed from annual peak-flow data using the log-Pearson type III method. The recurrence interval, in years, is the average period in which a given event might be equaled or exceeded. It should not be construed to imply any regularity of occurrence. The recurrence interval can be taken as a reciprocal of the probability of occurrence. A 10-year flood would have one chance in 10, or a 10 percent chance, of occurring in any year. A 100-year flood has one chance in 100, or a 1 percent chance, of occurring in any year. As drawn, the frequency curves are shown as a solid line to twice the period of record and are extended as a dashed line to estimate higher floods up to the 500-year flood.

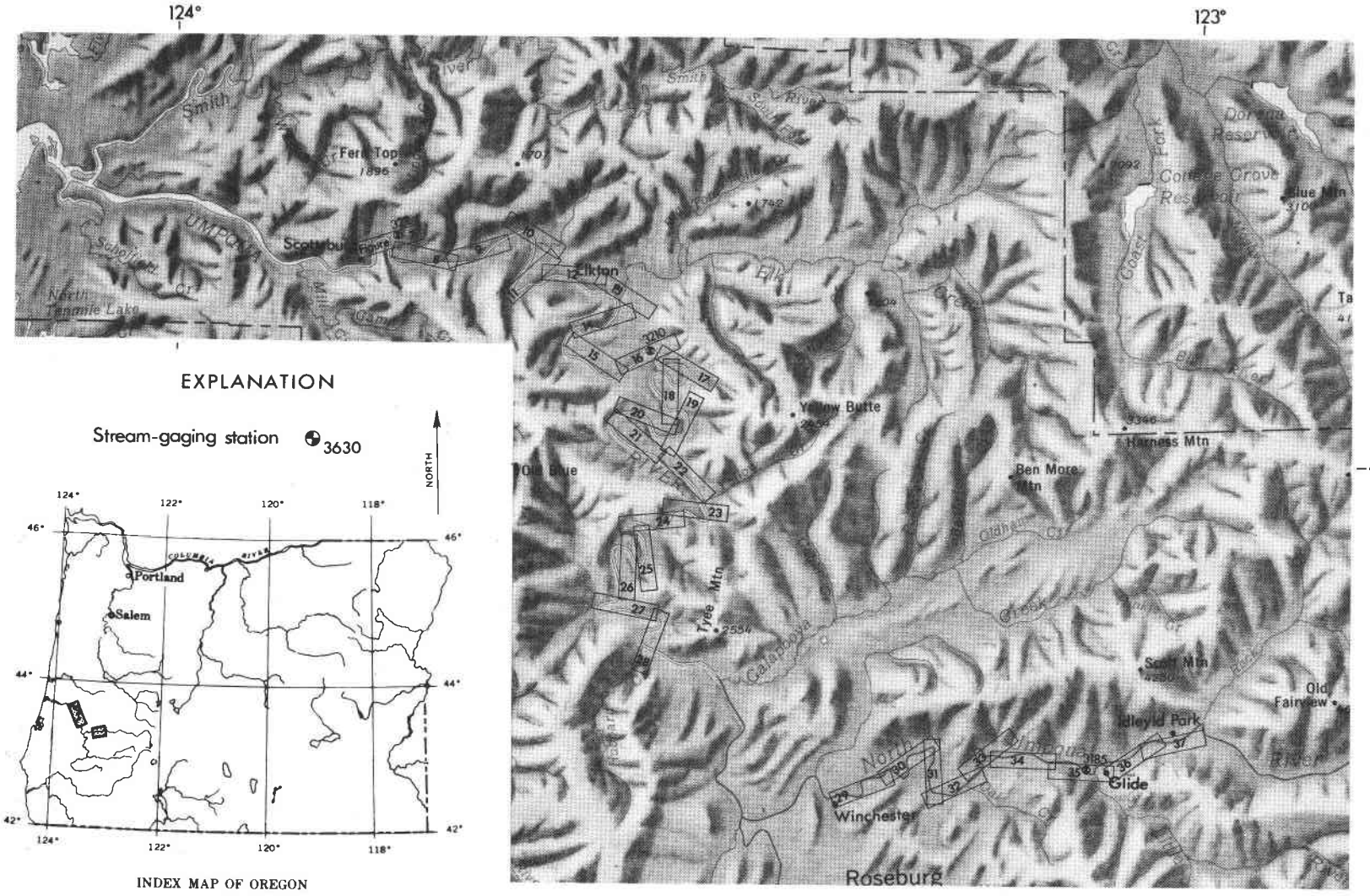

Figure 1.--Location of study area.

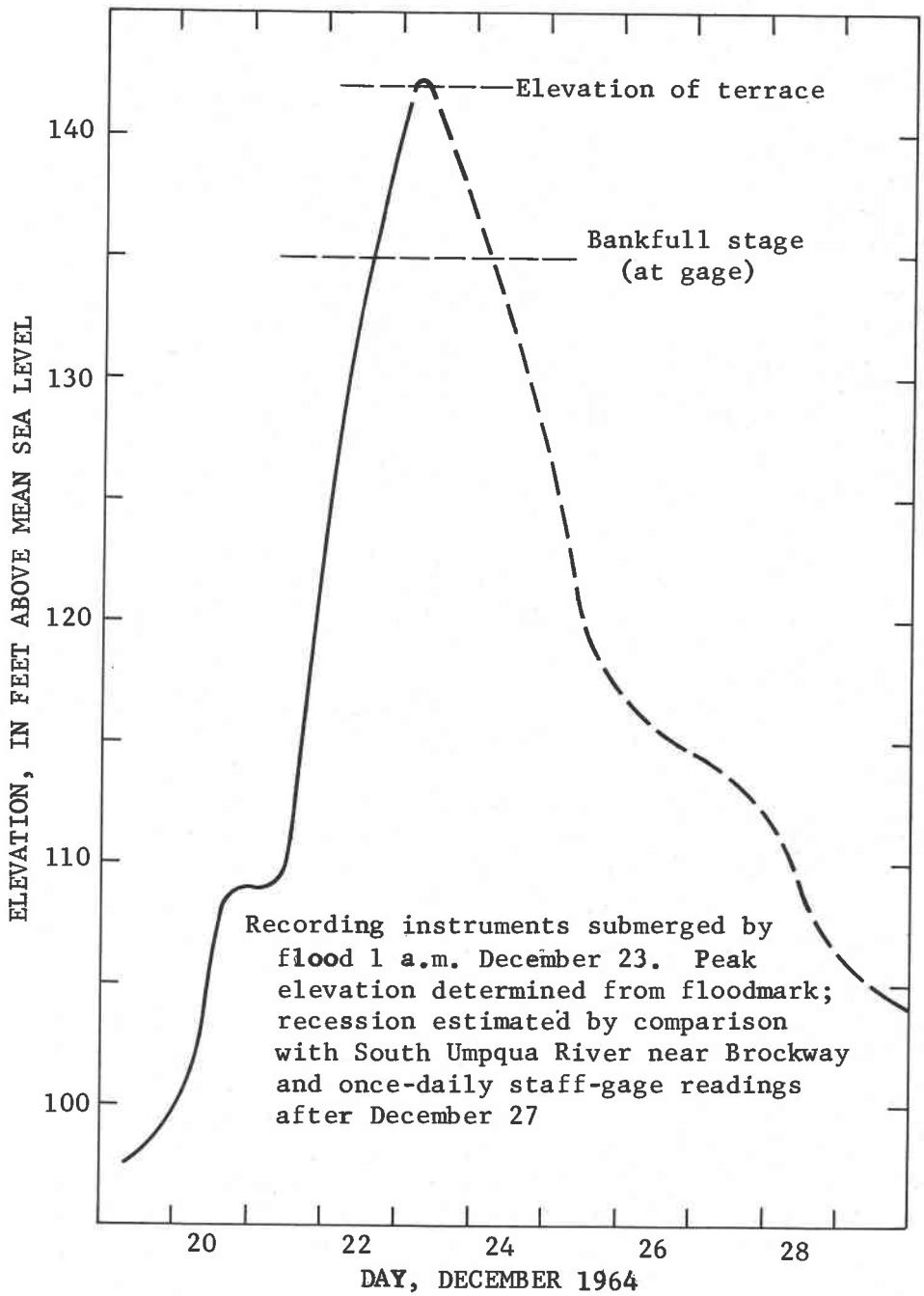

Figure 2.--Stage hydrograph of Umpqua River near Elkton (station 3210), flood of December 1964.

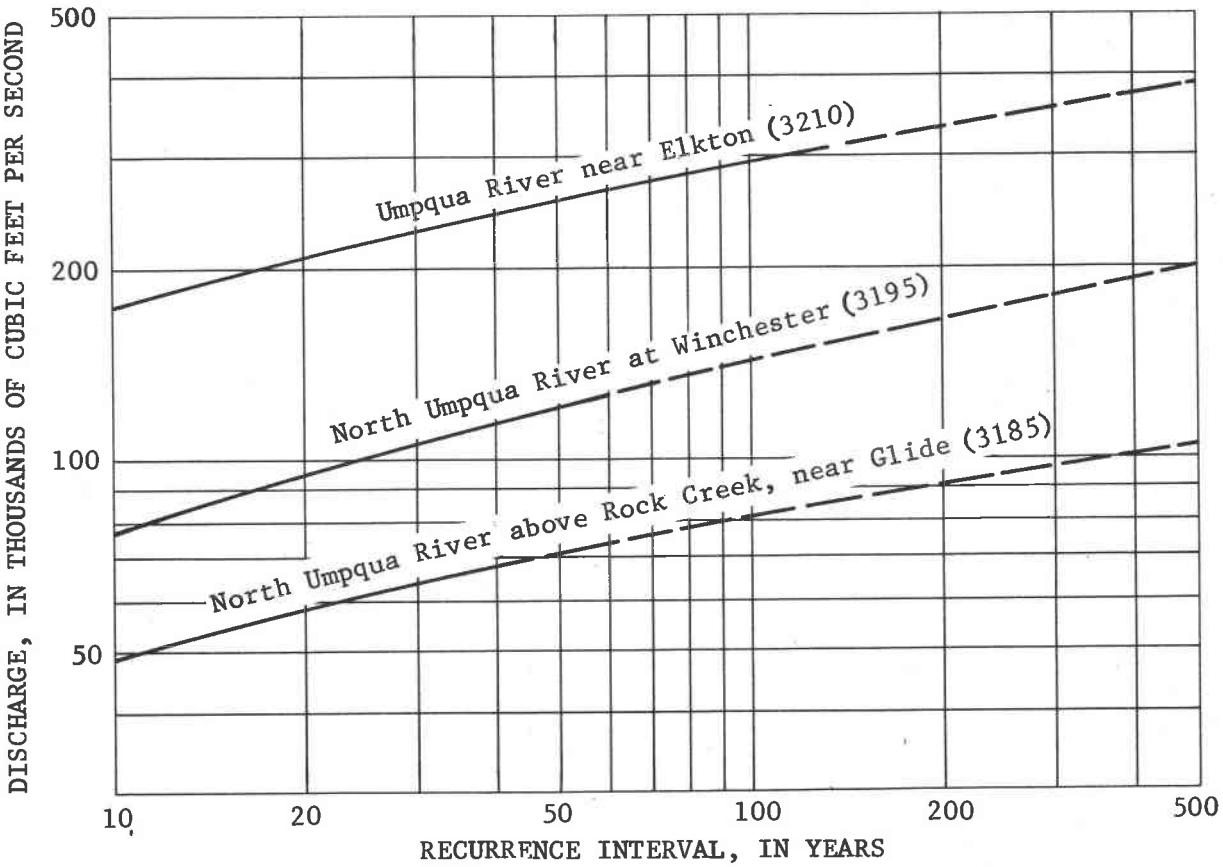

Figure 3.--Flood-frequency curves for selected gaging stations.

Discharges used to develop the flood profiles are shown in table 4. On the Umpqua River, discharges upstream and downstream from the gaging station were determined in proportion to drainage area. On the North Umpqua River, streamflow records for Little River and Rock Creek near Glide were used together with drainage area to determine flood discharges along the study reach.

Streamflow records of the North Umpqua River were extended by correlation to records of Umpqua River near Elkton (3210) to provide a longer time base for the frequency analysis. The resulting frequency curve was significantly lower than the curve based on the period of record alone. It was considered well to recompute the profiles in the reach of the North Umpqua River below Winchester Dam; the recomputed profiles will supersede those published in part 1 of this series.

STUDY METHODS

Photogrammetric Mapping

Channel-geometry data required for the step-backwater analysis were furnished by a commercial photogrammetry firm. They produced orthophoto work maps (scale 1 in. = 400 ft) from aerial photographs, with

horizontal and vertical map control established to third-order accuracy at primary picture ground-control points. An orthophoto map is an aerial photo mosaic completely corrected for scale and distortion, and is as accurate as a plotted map. The orthophoto map shows all the detail visible on the photograph and includes much detail that would be omitted from a plotted map. Spot elevations, 5-foot ground contours, cross-section locations, and lettering were added. All elevations are given in feet above mean sea level.

Cross sections were positioned perpendicular to the direction of flow in the channel and, where necessary, were angled to be perpendicular to the flow across the flood plain. Cross-section ground elevations were determined at 100-foot intervals and at topographic breaks across the flood plain. Accuracy of cross-section elevations was to be within ± 1 foot for 90 percent of the points where ground surface was visible in the aerial photographs. Contour accuracy was to be within half a contour interval for 90 percent of the area mapped where the ground surface was not obscured by vegetative cover.

The originals of the orthophoto work maps, not intended for publication, are available for inspection in the office of the Douglas County Planning Department.

Collection of Field Data

Cross-section locations were selected in the field, and water-depth soundings were made prior to the photogrammetric mapping. To complete each channel cross section, the sounded water depths were later added to the photogrammetric ground elevations. Cross sections were spaced about 1,000-1,200 feet apart, on the average, and at principal breaks in the channel gradient. A few additional cross sections were scaled from the photo map after the fieldwork had been completed. The bridges in the project reach were examined in the field and, based on past experience, judged to have little or no constricting effect on floodflows.

The elevations of documented high-water marks were determined by leveling to nearby bench marks and were used to verify the accuracy of the computed profiles.

Roughness Coefficients

Channel roughness coefficients required in the hydraulic computations were selected in the field for subreaches through each cross section. Verbal description of bed material and color-slide photographs of the channel were used to aid in office review of the coefficients selected. The aerial photographs were used to assist in selecting roughness coefficients for the flood plain.

Step-Backwater Analysis

A digital computer was used to make the large number of calculations required in the step-backwater process. The profiles are developed by beginning at the farthest downstream cross section with a known or computed stage-discharge relation and progressively computing profile elevations upstream from cross section to cross section.

On the Umpqua River, step-backwater computations were started at Scottsburg, using an estimated stage-discharge relation based on high-water marks of the December 1955, December 1964, and January 1971 floods, and a low-water elevation.

Between cross sections 12 and 13 the step-backwater computations were adjusted to match the stage-discharge relation curve for Umpqua River near Scottsburg (3229). This curve was defined by current meter to 53,000 cfs and extended on the basis of high-water-mark elevations and the shape of the step-backwater curve. The discharge of the December 1964 flood was computed on the basis of drainage area and unit runoff below Umpqua River near Elkton (3210).

At cross section 134, the stage-discharge relation for gaging station 3210 was used to continue the step-backwater computations upstream. That stage-discharge relation was defined by current meter to 200,000 cfs and a slope-area determination of discharge at 208,000 cfs.

On the North Umpqua River at Glide, step-backwater computations were broken and restarted from an estimated stage-discharge relation above the mouth of the Little River. A very large rock outcrop in the channel and the flow of the Little River colliding head on with the North Umpqua River (see fig. 35) cause considerable pileup of water at this location. A relation was estimated based on a high-water mark and a low-water elevation. Step-backwater computations were continued upstream, starting from the estimated relation.

RESULTS OF THE STUDY

Profile elevations for the selected flows are shown in tables 5 and 6. The distances shown were measured along the stream channel by the photogrammetry contractor.

The computed profiles, together with maps of the area, are shown in figures 7 to 37. The profiles can be related to the adjacent maps for location of cross sections. The stream boundaries shown on the maps and the low-water elevations shown on the profiles are for the days of aerial photography, May 27, 1972, on the North Umpqua River and May 30, 1972, on the Umpqua River. The late summer flows of August and September can be expected to be 2-3 feet lower. Plots of the cross sections are shown in figures 38 to 85.

On the Umpqua River, a profile was computed for the 100-year flood adjusted for storage in the proposed Days Creek Lake on the South Umpqua

River. The adjusted discharge was furnished by N. G. Hosea, Corps of Engineers (oral commun., November 11, 1971), for the gaging station near Elkton and was extrapolated upstream and downstream on a drainage-area ratio. Elevations along this profile are listed in table 5.

Umpqua River

The step-backwater computations were started at the Scottsburg bridge from an estimated stage-discharge relation based on high-water marks. From cross section 3 to 11 it was necessary to adjust the step-backwater computations to a profile defined by high-water marks. Local residents report that extreme high tide affects river stages upstream to cross section 8.

The gaging station Umpqua River near Scottsburg (3229) was located on the right bank (facing downstream) between cross sections 12 and 13. The step-backwater profiles were adjusted to an estimated extension of the stage-discharge relation, which was defined by current meter to 53,000 cfs. Two high-water marks on the right bank and one approximate high-water mark on the left bank, pointed out by residents, show 3 to 3.5 feet of lateral slope from the right bank to the left bank. The profiles shown are the average of this lateral slope. From cross section 13 to 30, the computed profile agrees very well with known high-water marks.

From cross section 33 to 92 the computed profiles were adjusted to agree more closely to a profile based on high-water marks. At sections 94 and 96, the computed profile agrees well with known high-water marks.

At cross section 96, in Elkton above the mouth of Elk Creek, three high-water marks on the right bank and one on the left bank show 2.4 feet of lateral slope from right to left. The pileup is on the right bank, on the outside of a sharp curve, where Elk Creek water would influence the stage of the river. Another high-water mark, across Elk Creek, 1.4 feet lower in elevation, may reflect an eddy current. Still another high-water mark, on the left, at the outer edge of the flood plain, is 0.7 foot lower than the high-water mark on the left bank of the main channel. The computed elevation is 0.5 foot lower than the three right-bank high-water marks and 0.7 foot higher than the average of left bank and right bank marks.

Between cross sections 96 and 134, one high-water mark was found, at section 117, about 2 feet higher than the computed elevation. This mark is at the edge of a flood plain 2,000 feet wide and may not truly represent water surface at the channel. Because marks defining high water are inadequate in this area, the profiles are accepted as computed.

At gaging station Umpqua River near Elkton (3210), at cross section 134, the stage-discharge relation is defined by current meter to 200,000 cfs and by a slope-area determination of discharge at 208,000 cfs. The step-backwater computations agree very well with this relation (fig. 4)

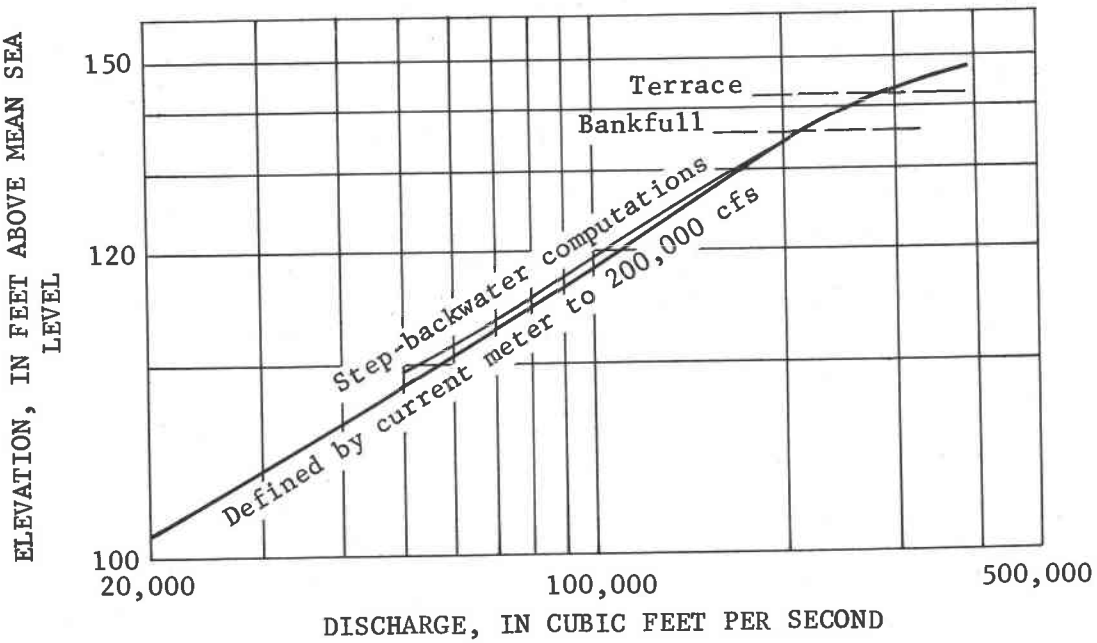

Figure 4.--Stage-discharge relation, Umpqua River near Elkton (station 3210).

within the limits of its definition. Computations were continued upstream using the relation defined by current meter.

Cross sections 136 to 177 lie in an isolated, uninhabited canyon. No high-water marks were found. From cross section 167 to 186, the computed profiles were adjusted to agree with a water stain on a building at cross section 178. The computed profile agrees very well with a mark at cross section 188. From cross section 191 to 206 the computed profiles were adjusted to a profile based on marks at cross sections 192, 199, and 202.

From cross section 207 to 236, high-water-mark data were inadequate to define a profile. The computed profiles from cross section 237 to 268 agree with known high-water marks.

At cross sections 296 and 297 there is a disagreement of several feet between three high-water marks--two of them spikes set by other agencies and the other an approximate location pointed out by a resident. The computed profile agrees very well with the approximate location and splits the difference of the other two. The profile was allowed to stand as computed.

From cross section 298 to 333, the end of the project reach, high-water marks are sparse and inadequate. The computed profile agrees well with a mark at cross section 314.

At cross section 333 the computed profiles are 2 to 2.5 feet higher than the estimated stage-discharge relation that was used to start the computations of part 1 of this series. Computations were continued upstream to the lower end of Coles Valley; the profiles merged well at cross section 4 of part 1 and are presented as an addition to table 5 of this report, superseding the elevations published in part 1.

North Umpqua River

On the pier of the railroad bridge at Winchester there is an old staff gage that was used prior to 1930. The stage-discharge relation for this gage was defined by current meter to 40,000 cfs and extended logarithmically to bankfull. The channel bottom is rough bedrock, with no possibility of scour. The step-backwater computations of 1973 agree very well with this old relation below bankfull (fig. 5).

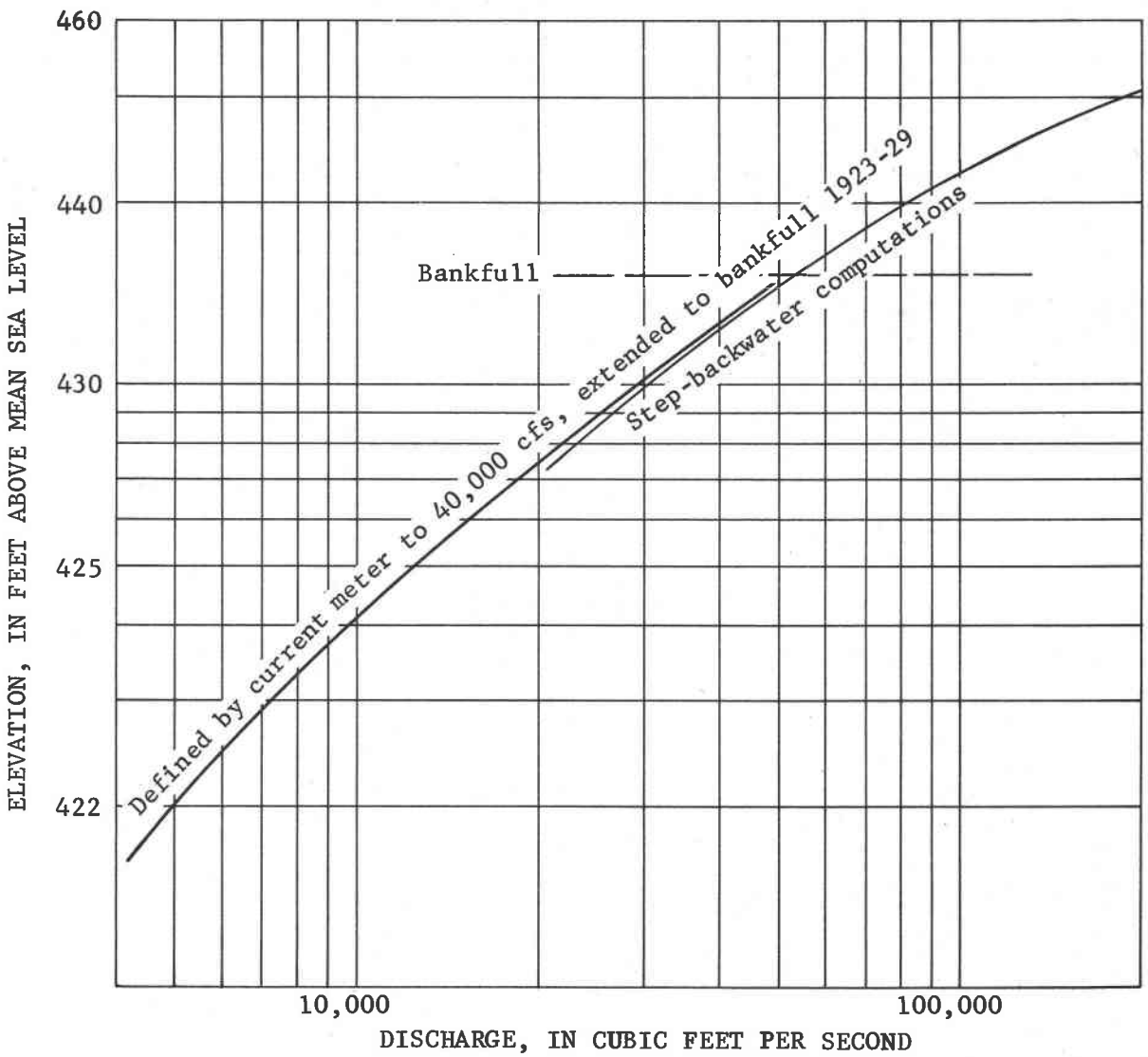

Figure 5.--Stage-discharge relation, North Umpqua River at railroad bridge at Winchester (station 3195).

The staff gages for gaging station North Umpqua River near Glide (3185), 1 mile below Glide, are still standing and in good condition. The stage-discharge relation for this gage was defined by current meter to 40,000 cfs and extended logarithmically to bankfull. The channel bottom is rough bedrock, with no possibility of scour. The step-backwater computations of 1973 agree very well with this old relation below bankfull (fig. 6).

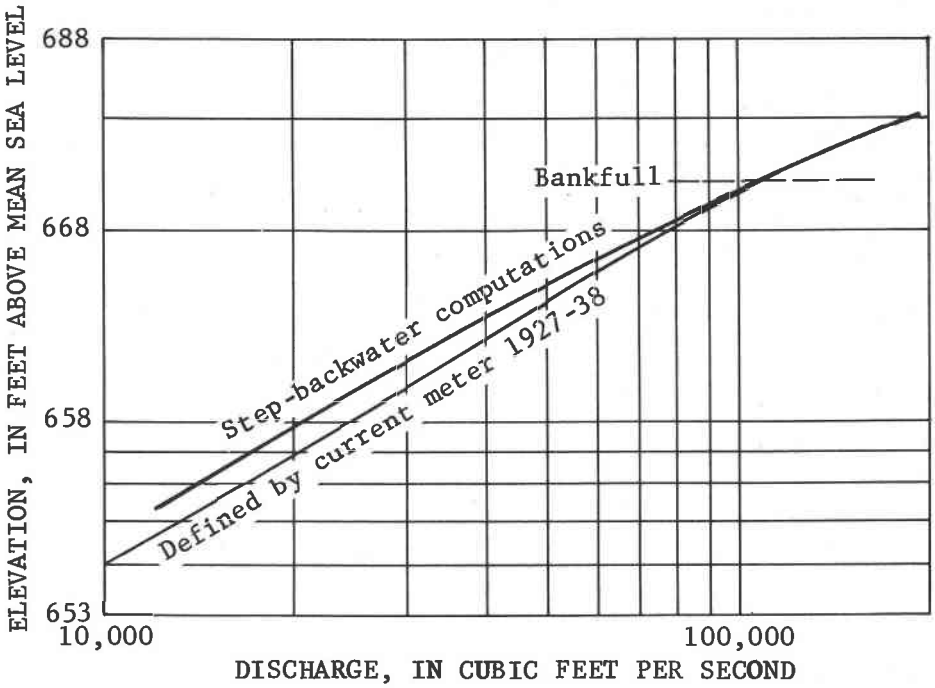

Figure 6.--Stage-discharge relation, North Umpqua River near Glide (station 3185).

High-water-mark information is totally lacking or inadequate for long reaches of the North Umpqua River below cross section 95. From cross section 95 to 125 the step-backwater checks the available high-water marks quite well. Above cross section 118, above Lone Rock bridge, all floods are well confined within high banks.

At cross section 118, on the left bank (facing downstream) above Lone Rock bridge, high-water marks of the December 1964 flood and January 1971 flood are 3.2 feet and 1.5 feet higher than the computed elevations. This is an area where floodwater would pile up on the left bank while making a sharp bend to the right to pass through the bridge opening. Three feet of pileup is consistent with experience elsewhere and is quite credible.

USE OF THE RESULTS

Elevations from the computed profiles (figs. 7-37) can be used in conjunction with the plotted cross sections (figs. 38-85) to determine the width of the area subject to flooding. This width can be transferred to a suitable topographic map to determine the area inundated by each flood. If the contour interval of the map is sufficiently small, the flood-profile elevations can be plotted directly on the map to determine the inundated area. The plotted cross sections can also be used to determine the stage at which overbank flow occurs and where water might be ponded in low areas of the flood plain.

The 500-year flood profiles should be considered as estimates because of the comparatively short period of streamflow record on which the frequency analysis was based.

The step-backwater method of computation assumes a level water surface across the width of the river. Sharp channel curvature or a strong tributary inflow can superelevate the water surface by several feet from bank to bank. In using the results of this study, allowance should be made for this superelevation and for backwater in areas vulnerable to catching debris. It should also be recognized that overbank flow can become separated from the main channel and continue at a higher elevation on the flood plain than in the main channel. Such conditions are extremely difficult to simulate.

The computed profiles are based on channel conditions at the time of the survey. Debris jams during a flood can cause varying amounts of backwater that are impossible to predict. Future channel changes or constriction of the flood plain could also change flood elevations in the affected reach.

SUMMARY

Flood elevations for the selected reaches of the Umpqua River basin are presented in graphic and tabular form. To give a concept of range in stage, a low-water profile is included. The profiles presented are in reasonably good agreement with documented high-water marks and stage-discharge relations defined by current meter.

REVISIONS TO PART I PROFILES

A revision of the stage-discharge relation for gaging station South Umpqua River near Brockway (3120) requires the published peak discharge of the December 1964 flood to be revised from 105,000 cfs to 125,000 cfs. This revision was based on information generated by, and compiled after, the publication of part 1 of this series. On the basis of this revision, it was necessary to recompute the profile of the December 1964 flood from near the mouth to near Tri-City. This revised profile (table 7) supersedes the one published in part 1 of this series. The flood-insurance study made in 1973 for Winston included a recomputation of the step-backwater from the gaging station near Brockway.

Because of the revision of the stage-discharge relation at the gage and the recomputation of the bridge constriction and road overflow at cross sections 109 and 127, the several profiles were revised from cross section 107 to 136. The frequency analysis was reexamined in light of the new data and found to be changed less than 1 percent. The corresponding profiles are unchanged except as noted above.

On the North Umpqua River, step-backwater computations past the old gaging stations near Glide and at Winchester check the old stage-discharge relations very well. High-water marks found near each of these old gages shown the published figure of discharge for the December 1964 flood to be in error. The 1964 flood discharge at Winchester was revised from 119,000 cfs to 150,000 cfs. This revised discharge was used in a revision of the frequency analysis mentioned on page 6. This revision also required a revision of the stage-discharge relation above bankfull at gaging station North Umpqua River at Winchester (3195). Because of the revisions it was considered necessary to recompute the profiles in the reach of the North Umpqua River below Winchester Dam. Those recomputed profiles (table 8) supersede those published in part 1 of this series of reports.

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Bailey, J. F., and Ray, H. A., 1966, Definition of stage-discharge relation in natural channels by step-backwater analysis: U.S. Geol. Survey Water-Supply Paper 1869-A, 24 p.

Oster, E. A., 1972, Flood profiles in the Umpqua River basin, Oregon, part 1: U.S. Geol. Survey open-file rept., 119 p.

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Table 1.--Annual peaks for Umpqua River near Elkton, Oreg. (station 3210)

Water year	Date	Elevation (in feet above msl)	Discharge (in cfs)
	Site near downstream side of Smith Bridge		
1862	Dec. 1861	137.1	218,000
1906	Jan. 17, 1906	111.4	61,400
1908	Dec. 26, 1907	122.0	106,000
1909	Jan. 20, 1909	120.0	97,200
1910	Nov. 23, 1909	131.0	144,000
1911	Nov. 29, 1910	118.5	94,300
1912	Jan. 13, 1912	121.5	109,000
1913	Jan. 18, 1913	114.5	75,800
1914	Jan. 26, 1914	112.5	67,000
1915	Feb. 3, 1915	104.5	33,100
1916	Feb. 7, 1916	122.5	116,000
1917	Mar. 25, 1917	106.3	40,300
1918	Jan. 13, 1918	112.5	67,000
1919	Jan. 19, 1919	117.5	91,000
1920	Dec. 9, 1919	109.5	53,500
1921	Dec. 30, 1920	115.5	81,000
1922	Nov. 30, 1921	114.5	76,000
1923	Jan. 6, 1923	118.5	96,000
1924	Dec. 7, 1923	106.0	39,100
1925	Dec. 30, 1924	122.5	116,000
1926	Feb. 5, 1926	112.5	67,000
1927	Feb. 21, 1927	132.5	185,000
1928	Mar. 27, 1928	112.5	67,000
1929	Apr. 15, 1929	107.7	45,400
1930	Dec. 20, 1929	111.5	62,000
1931	Apr. 1, 1931	109.0	51,000
1932	Mar. 19, 1932	120.3	104,000
1933	Jan. 3, 1933	119.6	101,000
1934	Jan. 24, 1934	109.7	53,200
1935	Dec. 20, 1934	114.7	76,600
1936	Jan. 13, 1936	121.6	111,000
1937	Apr. 14, 1937	118.2	94,000
1938	Feb. 7, 1938	122.6	119,000
1939	Mar. 13, 1939	110.6	57,300
1940	Feb. 29, 1940	116.1	83,500

Table 1.--Annual peaks for Umpqua River near Elkton, Oreg. (station 3210)--Continued

Water year	Date	Elevation (in feet above msl)	Discharge (in cfs)
1941	Dec. 27, 1940	113.4	70,400
1942	Dec. 19, 1941	114.2	74,200
1943	Dec. 31, 1942	132.7	186,000
1944	Nov. 5, 1943	109.6	52,000
1945	Feb. 14, 1945	114.7	76,500
1946	Dec. 29, 1945	131.7	179,000
1947	Dec. 14, 1946	114.2	74,000
1948	Jan. 7, 1948	129.4	154,000
1949	Dec. 12, 1948	121.1	109,000
1950	Jan. 22, 1950	114.9	78,000
1951	Oct. 30, 1950	135.8	208,000
1952	Feb. 2, 1952	113.9	72,500
1953	Jan. 19, 1953	134.6	199,000
1954	Nov. 23, 1953	134.0	195,000
1955	Dec. 31, 1954	111.4	60,400
1956	Dec. 22, 1955	137.2	218,000
	Site 1,800 feet downstream from Smith Bridge		
1957	Dec. 12, 1956	123.4	131,000
1958	Dec. 21, 1957	123.4	131,000
1959	Jan. 12, 1959	117.2	95,200
1960	Feb. 9, 1960	116.6	91,700
1961	Feb. 11, 1961	121.4	119,000
1962	Nov. 23, 1961	130.5	176,000
1963	Dec. 3, 1962	116.5	91,300
1964	Jan. 20, 1964	124.6	138,000
1965	Dec. 23, 1964	142.4	265,000
1966	Jan. 4, 1966	123.8	133,000
1967	Jan. 28, 1967	114.9	82,600
1968	Feb. 23, 1968	114.0	78,300
1969	Jan. 13, 1969	115.4	85,300
1970	Dec. 21, 1969	120.4	113,000
1971	Jan. 18, 1971	134.0	201,000
1972	Mar. 3, 1972	127.8	158,000

Table 2.--Annual peaks for North Umpqua River at Winchester, Oreg. (station 3195)

Water year	Date	Elevation (in feet above msl)	Discharge (in cfs)
	Site at Southern Pacific Railroad bridge at Winchester, river mile 6.8		
1909	Jan. 21, 1909	430.6	32,400
1910	Nov. 23, 1909	445.4	100,000
1911	Nov. 28, 1910	432.8	41,000
1912	Jan. 12, 1912	437.3	60,500
1913	Mar. 30, 1913	430.0	30,100
1924	Dec. 29, 1923	--	20,200
1925	Dec. 30, 1924	433.4	42,800
1926	Feb. 4, 1926	428.3	23,300
1927	Feb. 20, 1927	442.3	78,200
1928	Mar. 11, 1928	431.8	36,100
1929	Mar. 21, 1929	429.1	25,900
1/1951	Oct. 29, 1950	441.3	88,000
	Site 400 feet downstream from county bridge, at river mile 1.8		
1954	Nov. 23, 1953	401.4	89,000
1955	Dec. 31, 1954	388.0	38,100
1956	Dec. 22, 1955	402.1	92,500
1957	Dec. 11, 1956	397.3	75,400
1958	Dec. 21, 1957	393.1	58,600
1959	Jan. 27, 1959	386.8	34,000
1960	Feb. 8, 1960	385.7	30,000
1961	Nov. 25, 1960	390.1	46,600
1962	Nov. 23, 1961	397.7	76,800
1963	Dec. 2, 1962	388.7	40,800
1964	Jan. 20, 1964	391.2	50,800
1965	Dec. 22, 1964	407.2	2/150,000
1966	Jan. 6, 1966	392.5	56,200
1967	Jan. 28, 1967	387.4	35,800
1968	Feb. 23, 1968	388.6	40,500
1969	Nov. 9, 1968	387.0	34,000
1970	Dec. 21, 1969	390.5	48,200
1971	Jan. 18, 1971	399.4	84,300
1972	Mar. 3, 1972	397.0	73,900

1/ Not previously published.
2/ Revised.

Table 3.--Annual peaks for North Umpqua River near Glide, Oreg. (station 3185)

Water year	Date	Elevation (in feet above msl)	Discharge (in cfs)
1910	Nov. 22, 1909	671.1	94,000
1916	Nov. 25, 1915	661.9	42,000
1917	Apr. 11, 1917	656.5	18,100
1918	Jan. 12, 1918	662.0	42,500
1919	Jan. 17, 1919	658.5	26,100
1920	Nov. 3, 1919	659.9	32,400
1922	Nov. 21, 1921	662.9	50,000
1928	Mar. 11, 1928	660.3	35,200
1929	Apr. 14, 1929	657.9	24,300
1930	Dec. 19, 1929	658.3	26,100
1931	Apr. 1, 1931	660.0	33,800
1932	Mar. 19, 1932	665.2	59,500
1933	Jan. 2, 1933	658.9	28,400
1934	Jan. 23, 1934	658.5	27,000
1935	Dec. 20, 1934	661.2	39,500
1936	Jan. 4, 1936	661.3	40,000
1937	Apr. 14, 1937	662.2	44,500
1938	Jan. 22, 1938	661.4	40,500
1951	Oct. 29, 1950	668.3	80,000
1956	Dec. 22, 1955	669.6	90,000
1/1965	Dec. 22, 1964	674.4	138,000

1/ Not previously published.

Table 4.--Discharges used to develop the flood profiles

Gaging station[1/]	Discharge, in cubic feet per second				
	10-year flood	25-year flood	100-year flood	500-year flood	December 1964 flood
North Umpqua River above Rock Creek, near Glide (3175)	48,900	61,200	81,000	105,000	--
North Umpqua River near Glide (3185)	72,000	94,400	135,000	191,000	138,000
North Umpqua River at Winchester (3195)	76,900	100,000	142,000	200,000	150,000
Umpqua River near Elkton (3210)	175,000	220,000	294,000	385,000	265,000

1/ Number following station name is the gaging station number.

Table 5.--Profile elevations for the Umpqua River above Scottsburg

Cross section	Distance upstream from Scottsburg bridge (feet)	Elevation, in feet above mean sea level							
		100-year flood (adjusted)[1/]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[2/]
1	220	35.2	40.8	52.1	42.4	33.2	27.2	0.8	-12.7
2	1,215	35.5	41.0	52.4	42.7	33.6	27.6	1.2	-17.2
3	2,675	36.3	42.2	52.9	43.9	34.3	28.4	1.7	-10.2
4	3,535	37.0	43.0	53.5	44.7	35.0	29.0	2.7	-7.2
5	4,470	37.4	43.9	54.2	45.5	35.4	29.6	3.8	-9.6
6	5,715	38.3	45.0	55.5	46.7	36.4	30.5	4.8	-17.0
7	7,480	40.1	46.8	57.8	48.2	38.3	32.5	6.5	-7.0
8	8,600	41.4	47.9	59.2	49.4	39.6	33.9	8.4	-13.0
9	9,690	42.0	49.0	60.9	50.8	40.2	34.7	9.0	-1.4
10	10,510	43.9	50.0	62.0	51.9	42.1	36.7	9.6	-25.0
11	11,655	45.2	51.0	63.6	53.1	42.8	37.3	10.0	-2.2
12	12,630	46.7	52.4	65.2	54.6	44.6	38.9	11.8	5.4
Gaging station 3229	13,350	--	--	--	--	--	--	--	--
Wells Creek	13,700	--	--	--	--	--	--	--	--
13	13,995	48.9	54.6	67.8	56.9	46.8	41.1	13.0	-5.4
14	15,515	49.9	55.7	68.6	57.9	47.8	42.0	13.5	0.6
15	16,535	50.3	56.0	68.8	58.2	48.2	42.4	14.2	1.8
16	17,915	51.0	56.5	69.0	58.6	49.0	43.3	15.2	-6.7
17	19,250	51.2	56.7	69.2	58.8	49.2	43.5	15.8	8.4
18	20,500	53.1	58.5	70.5	60.6	51.2	45.5	16.6	5.2
19	21,660	54.0	59.2	70.8	61.1	52.0	46.4	16.5	-4.5
20	22,820	54.4	59.6	71.0	61.5	52.5	46.9	16.6	-6.8
21	24,125	55.0	60.1	71.3	62.0	53.0	47.5	16.8	-10.8
22	25,232	55.6	60.7	71.8	62.5	53.7	48.2	16.9	-.9
23	26,232	56.5	61.5	72.5	63.4	54.6	49.0	17.0	-.5
24	27,297	57.0	62.0	72.9	63.8	55.2	49.6	17.1	6.4
Burchard Creek	27,600	--	--	--	--	--	--	--	--
25	28,387	58.0	62.8	73.6	64.6	56.0	50.6	17.2	8.0
26	29,450	58.8	63.5	74.2	65.3	56.8	51.4	17.3	5.5
27	30,607	59.1	63.8	74.3	65.5	57.2	51.8	17.4	9.5
28	31,587	59.7	64.3	74.8	66.0	57.8	52.5	17.4	4.4
29	32,150	60.0	64.4	74.8	66.1	58.0	52.7	18.4	6.5
30	33,063	60.7	65.2	75.7	67.0	58.7	53.4	18.8	7.0
Weatherly Creek	33,550	--	--	--	--	--	--	--	--
31	34,320	61.7	66.0	76.2	67.8	59.8	54.5	19.1	8.7
32	35,235	62.2	66.4	76.4	68.2	60.3	55.0	19.4	9.5
33	36,338	63.0	67.0	76.8	68.7	61.2	55.8	20.2	9.3
34	37,543	63.6	67.9	77.3	69.4	61.8	56.4	20.6	11.7
Lutsinger Creek	38,330	--	--	--	--	--	--	--	--
35	39,433	64.1	68.4	77.7	69.8	62.4	57.0	21.6	15.6
36	40,678	64.9	69.1	78.2	70.4	63.1	57.8	21.8	13.3
37	41,658	65.6	69.7	78.6	71.0	63.8	58.5	22.0	12.0
38	42,883	66.3	70.3	79.1	71.6	64.5	59.2	22.2	10.0
39	44,013	67.0	71.3	79.6	72.2	65.4	60.0	22.4	7.8
40	45,138	67.5	71.7	79.8	72.7	65.8	60.6	22.6	17.0
41	46,213	68.0	72.2	80.1	73.1	66.3	61.1	22.8	5.7
42	47,263	68.7	72.8	80.8	73.8	67.0	61.8	24.2	18.2
43	48,403	69.0	73.3	81.3	74.3	67.4	62.2	25.2	17.7
44	49,490	69.6	74.0	81.9	75.0	67.9	62.8	25.9	18.0
45	50,343	70.2	74.8	82.8	75.7	68.7	63.5	26.2	13.0
46	51,330	70.5	75.1	83.1	76.1	69.0	63.8	26.6	22.0
47	52,195	71.2	75.6	83.4	76.5	69.6	64.4	28.2	24.6
48	53,355	71.6	76.0	83.8	76.9	70.0	64.8	32.2	20.0
49	54,305	71.8	76.2	84.0	77.1	70.3	65.0	38.4	31.0
50	55,280	72.8	77.2	84.6	78.1	71.3	66.2	38.7	27.7
51	56,305	73.4	77.6	85.3	78.7	71.9	67.0	42.2	22.0
52	57,545	74.2	78.3	86.0	79.4	72.7	67.9	42.4	30.0
53	58,605	74.9	78.9	86.8	80.1	73.5	68.7	43.2	38.7
54	59,745	76.4	80.2	88.0	81.6	75.0	70.3	43.8	27.3
55	60,995	77.3	81.0	88.9	82.5	75.9	71.2	44.0	29.0
56	61,895	78.3	81.6	90.0	83.5	77.0	72.2	44.2	32.7

Footnotes at end of table.

Table 5.--Profile elevations for the Umpqua River above Scottsburg--Continued

Cross section	Distance upstream from Scottsburg bridge (feet)	Elevation, in feet above mean sea level							
		100-year flood (adjusted)[1]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[2]
57	62,722	79.1	82.2	90.7	84.3	77.7	73.0	45.3	35.0
Paradise Creek	62,870	--	--	--	--	--	--	--	--
58	64,017	80.1	83.4	91.3	85.3	78.8	74.1	45.8	24.0
59	65,452	81.5	84.6	92.4	86.5	80.2	75.5	46.5	34.0
60	66,875	83.5	86.0	94.0	88.5	82.2	77.3	47.1	40.5
61	68,155	84.9	87.1	94.7	89.5	83.6	78.7	47.3	30.0
62	69,392	85.6	88.2	95.3	90.2	84.3	79.4	47.6	30.0
63	70,715	86.5	89.4	96.3	91.1	85.1	80.3	48.2	31.7
64	72,125	87.7	90.7	97.2	92.1	86.3	81.4	48.8	42.8
65	73,535	89.4	92.0	99.0	93.9	88.0	83.0	49.3	45.0
66	75,175	90.1	93.0	99.7	94.5	88.7	83.7	50.1	45.3
67	76,210	91.0	94.2	100.2	95.3	89.5	84.2	51.4	45.3
68	77,595	92.1	95.5	101.5	96.4	90.6	85.3	54.0	48.0
Sawyer Creek	78,340	--	--	--	--	--	--	--	--
69	79,160	93.2	96.9	102.9	97.7	91.9	86.6	54.7	46.0
70	80,775	94.6	98.2	104.3	99.1	93.2	88.0	56.0	44.0
71	82,045	95.5	99.3	105.4	100.2	94.0	88.7	57.0	43.0
72	82,880	96.4	100.2	106.2	100.9	94.9	89.7	58.8	47.0
73	83,830	97.3	101.0	107.0	101.7	96.0	90.7	59.8	47.5
74	84,510	97.8	101.5	107.8	102.3	96.4	91.1	60.4	42.6
75	85,440	98.5	102.5	108.2	103.0	97.4	92.0	61.2	50.0
76	86,445	99.3	103.0	109.0	103.7	97.9	92.5	61.4	53.6
77	87,765	99.9	103.6	109.4	104.2	98.5	93.3	62.0	55.2
78	88,885	100.0	103.9	109.5	104.7	99.0	94.0	62.7	48.0
79	89,870	100.8	104.3	110.2	105.2	99.7	94.7	63.0	48.0
80	90,625	101.5	104.8	110.6	105.7	100.5	95.4	63.2	52.1
81	91,350	102.1	105.2	111.0	106.2	101.0	95.8	63.3	51.2
82	92,510	102.9	106.1	111.6	107.2	101.9	96.6	63.4	48.3
83	93,585	104.0	106.9	112.0	107.9	102.9	97.7	63.5	51.4
84	94,685	104.5	107.4	112.4	108.2	103.4	98.2	63.8	55.7
85	95,860	105.1	108.1	113.2	109.0	104.0	98.8	64.0	57.2
86	97,095	105.8	108.9	114.2	109.8	104.7	99.6	64.1	57.8
87	98,555	106.5	109.4	114.6	110.2	105.5	100.4	64.3	53.7
88	99,835	107.3	110.2	115.5	111.1	106.3	101.1	64.5	58.5
89	100,985	108.4	111.1	116.2	112.0	107.3	102.0	64.8	53.7
90	102,345	109.3	112.0	117.0	112.9	108.3	103.0	65.4	57.8
91	103,575	109.7	112.4	117.4	113.2	108.7	103.5	66.0	57.4
92	104,705	110.5	113.2	118.0	114.0	109.5	104.2	66.0	60.4
93	105,775	111.0	114.5	119.8	115.3	109.7	104.5	72.0	62.0
94	107,440	112.7	116.1	122.3	117.2	111.4	106.0	73.5	44.0
95	108,135	113.3	117.0	123.5	118.2	111.8	106.4	74.3	60.6
Elk Creek	109,730	--	--	--	--	--	--	--	--
96	110,085	114.8	118.7	125.5	119.8	113.3	107.9	77.2	69.0
Beckley Bridge	110,230	--	--	--	--	--	--	--	--
97	110,412	115.2	119.0	126.0	120.3	113.7	108.4	77.3	67.0
98	111,349	115.5	119.3	126.3	120.6	114.0	108.8	77.6	67.0
99	112,182	115.9	119.6	126.6	120.9	114.4	109.2	78.0	63.7
100	113,699	116.3	119.8	126.7	121.0	114.8	109.7	78.3	63.4
101	114,919	116.8	120.3	127.1	121.5	115.3	110.2	78.6	64.0
102	116,232	117.3	120.6	127.4	122.0	116.0	110.9	79.2	56.6
103	117,342	117.9	121.2	128.2	122.6	116.6	111.4	79.7	54.0
104	118,587	118.9	122.2	129.4	123.7	117.6	112.3	80.3	58.5
105	119,600	119.2	122.5	129.8	124.0	117.8	112.5	80.7	65.8
106	120,563	119.3	122.6	129.9	124.1	118.0	112.8	81.0	70.0
107	121,568	120.2	123.3	130.3	124.8	118.9	113.6	81.1	68.0
108	122,403	121.0	123.8	130.6	125.2	119.7	114.5	81.3	68.0
109	123,560	121.6	124.3	131.0	125.7	120.3	115.1	81.4	65.0
110	124,635	122.2	124.8	131.7	126.3	120.8	115.6	81.8	74.7
111	125,643	123.2	125.7	132.5	127.3	121.8	116.6	82.0	63.0
112	126,750	123.4	126.0	132.8	127.5	122.0	116.9	82.1	64.0
113	127,725	123.8	126.4	133.1	128.0	122.4	117.2	82.5	69.4
114	128,705	124.5	127.2	134.2	129.0	123.0	117.9	82.7	74.6
115	130,045	125.4	128.0	135.0	129.8	123.9	118.7	84.2	60.0
116	131,035	125.6	128.2	135.2	130.0	124.1	118.9	85.1	58.0

Footnotes at end of table.

Table 5.--Profile elevations for the Umpqua River above Scottsburg--Continued

Cross section	Distance upstream from Scottsburg bridge (feet)	Elevation, in feet above mean sea level							
		100-year flood (adjusted)[1]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[2]
117	132,165	126.0	128.7	135.7	130.5	124.5	119.3	85.4	74.2
118	133,110	126.6	129.2	136.0	131.0	125.2	120.0	85.7	72.5
119	134,090	127.5	130.2	136.8	132.0	126.1	121.0	86.0	73.8
120	135,160	128.8	131.4	137.8	133.2	127.4	122.3	86.6	80.0
121	136,090	129.3	131.9	138.3	133.7	127.9	122.7	88.0	81.7
122	137,215	130.0	132.5	138.9	134.3	128.5	123.4	88.4	81.7
123	138,090	130.2	132.6	139.0	134.5	128.7	123.7	89.0	82.8
124	139,700	130.7	133.0	139.2	134.7	129.3	124.5	89.5	74.3
125	140,870	131.4	133.7	140.0	135.5	130.0	125.0	90.1	85.0
126	141,820	131.8	134.0	140.2	135.8	130.5	125.5	90.8	83.6
127	143,125	132.5	134.6	140.8	136.4	131.1	126.1	91.6	82.5
128	144,435	133.0	135.2	141.2	137.0	131.7	126.7	92.0	72.0
129	145,695	133.1	135.3	141.6	137.2	131.8	126.8	92.2	73.5
130	146,695	134.6	137.2	142.4	139.3	133.1	128.0	93.0	78.0
131	147,770	135.3	139.2	143.0	140.0	133.8	128.5	93.3	81.0
132	148,650	135.8	140.2	143.7	140.7	134.4	129.0	94.0	71.0
133	150,110	137.0	141.0	144.9	141.8	135.6	130.0	95.3	86.0
134	151,285	138.0	142.4	145.7	142.7	136.4	130.4	95.6	86.4
Gaging station 3210	151,285	--	--	--	--	--	--	--	--
135	152,735	138.7	143.0	146.3	143.4	137.0	131.1	96.0	85.3
Smith Bridge	153,170	--	--	--	--	--	--	--	--
136	153,465	139.3	143.6	147.1	144.0	137.7	131.8	96.2	84.0
137	154,130	139.7	143.9	147.6	144.3	138.0	132.5	96.3	66.0
138	154,960	140.4	144.5	148.8	145.2	138.7	132.9	96.6	72.4
139	155,855	141.3	145.5	150.4	146.3	139.7	133.8	99.7	81.5
140	156,755	141.7	145.8	151.0	146.7	140.0	134.2	105.2	93.0
141	157,565	142.5	146.6	152.2	147.6	140.8	135.0	109.2	96.6
142	158,850	143.2	147.2	153.0	148.3	141.5	135.8	112.0	104.0
143	160,175	144.0	147.9	153.9	149.0	142.3	136.8	113.0	99.8
144	161,150	145.0	148.7	154.9	150.0	143.3	137.8	114.2	99.0
145	162,350	147.1	150.8	158.0	152.4	145.3	139.9	115.1	100.0
146	163,600	148.0	151.5	158.7	153.2	146.3	141.0	115.2	99.5
147	165,050	148.8	152.3	159.6	154.0	147.2	141.9	115.4	100.4
148	165,970	150.0	153.5	161.3	155.4	148.4	143.0	115.5	102.8
149	167,020	150.8	154.3	162.2	156.2	149.2	143.8	115.6	106.5
150	168,440	151.4	154.9	162.9	156.8	149.8	144.5	115.6	99.5
151	169,460	152.0	155.3	163.4	157.3	150.3	145.0	115.9	99.3
152	170,760	152.7	156.0	164.1	158.0	151.0	145.7	116.3	104.7
153	171,970	153.5	156.7	164.9	158.7	151.8	146.5	117.0	105.4
154	172,960	154.0	157.1	165.4	159.2	152.2	147.0	117.8	103.1
155	173,905	155.0	158.2	166.7	160.3	153.3	148.0	120.4	107.2
156	175,090	155.6	158.7	167.2	160.8	153.9	148.7	122.2	106.5
157	176,615	156.4	159.5	168.0	161.7	154.7	149.6	124.0	112.8
158	177,790	157.1	160.3	168.7	162.5	155.5	150.3	124.2	108.0
159	179,010	157.8	160.9	169.2	163.0	156.1	151.0	124.5	109.8
160	179,865	159.6	162.7	171.4	165.0	157.9	152.7	124.7	111.0
161	181,080	160.2	163.4	172.0	165.7	158.6	153.4	125.5	104.8
162	182,255	161.5	164.6	173.5	167.0	159.9	154.8	129.3	123.6
163	183,275	162.1	165.2	174.2	167.6	160.5	155.5	131.5	125.3
164	184,320	162.7	165.9	174.7	168.2	161.2	156.3	133.2	121.5
165	185,435	163.5	166.5	175.3	168.9	162.0	157.2	134.5	128.3
166	186,445	165.2	168.3	177.3	170.7	163.8	159.0	136.6	128.9
167	187,500	167.2	170.2	179.4	172.6	165.8	161.1	137.8	118.1
168	188,550	168.6	171.5	180.6	173.8	167.1	162.6	138.5	129.3
169	189,495	169.2	172.0	181.0	174.3	167.7	163.4	139.3	130.1
170	190,525	170.4	173.1	181.9	175.4	169.0	164.7	139.8	129.1
171	191,585	171.3	174.0	182.8	176.3	169.8	165.6	140.2	124.5
172	192,730	172.5	175.2	183.8	177.4	171.0	166.7	140.5	132.9
173	193,895	173.8	176.5	185.0	178.7	172.4	168.2	140.7	129.3
174	194,805	175.1	177.7	186.5	180.0	173.0	169.4	140.8	126.6
175	196,070	175.8	178.4	187.2	180.7	174.4	170.0	141.0	130.5
176	196,920	176.6	179.3	188.2	181.6	175.2	170.8	141.2	127.4
177	197,905	177.8	180.6	189.9	183.0	176.4	171.8	141.4	126.4
178	198,715	178.6	181.4	190.8	183.8	177.0	172.5	141.6	133.7

Footnotes at end of table.

Table 5.--Profile elevations for the Umpqua River above Scottsburg--Continued

Cross section	Distance upstream from Scottsburg bridge (feet)	Elevation, in feet above mean sea level							
		100-year flood (adjusted)[1/]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[2/]
179	199,960	179.4	182.1	191.4	184.5	177.8	173.4	141.8	131.4
180	200,830	180.8	182.5	192.1	185.0	178.2	173.8	141.9	121.4
181	201,740	180.7	183.4	192.9	185.9	179.1	174.6	142.2	130.6
182	202,540	181.0	183.8	193.1	186.2	179.5	175.0	143.2	129.6
183	203,415	181.7	184.4	193.5	186.8	180.2	175.6	144.2	131.0
184	204,405	182.3	185.1	194.1	187.5	180.8	176.2	146.0	136.2
185	205,370	182.9	185.6	194.6	188.0	181.3	176.8	146.9	130.5
186	206,335	183.4	186.0	195.0	188.5	181.8	177.3	148.0	142.5
187	207,345	184.3	187.0	196.2	189.5	182.7	178.1	149.0	143.0
188	209,055	185.4	188.1	197.5	190.6	183.9	179.4	151.4	141.3
189	210,450	186.3	189.0	198.3	191.5	184.8	180.3	152.6	138.0
190	211,670	187.1	189.8	199.0	192.2	185.6	181.0	153.6	135.0
191	213,545	189.2	191.4	200.4	193.8	187.6	182.9	154.0	133.4
192	214,310	189.6	192.3	201.4	194.8	188.1	183.5	154.7	137.2
193	215,100	190.3	193.0	202.2	195.5	188.7	184.2	156.0	137.3
194	216,305	192.0	194.8	204.2	197.3	190.4	185.9	156.8	143.6
195	217,235	193.0	195.7	205.1	198.2	191.4	187.0	157.2	145.5
196	218,545	194.5	197.3	206.6	199.7	193.0	188.6	157.6	144.9
197	219,640	195.4	198.0	207.2	200.4	194.0	189.6	158.2	147.5
198	220,760	197.2	199.7	208.7	202.1	195.8	191.5	159.3	152.5
199	221,750	198.2	200.7	209.5	203.1	196.9	192.5	159.8	154.5
200	222,900	198.9	201.4	210.0	203.6	197.5	193.2	160.6	143.8
201	224,050	199.6	202.0	210.9	204.3	198.2	193.8	161.9	146.6
202	225,460	200.7	203.1	211.8	205.4	199.3	194.8	162.4	142.6
Kellogg Bridge	225,770	--	--	--	--	--	--	--	--
203	226,805	202.8	205.4	214.7	207.9	201.3	196.3	163.2	152.4
204	227,845	203.2	205.7	215.0	208.1	201.8	196.9	163.7	155.0
205	228,980	203.7	206.2	215.3	208.6	202.3	197.5	164.0	153.9
206	230,245	204.5	207.0	215.8	209.2	203.0	198.2	164.5	155.8
207	231,525	205.2	207.6	216.3	209.8	203.7	199.0	165.3	157.9
208	232,740	206.0	208.4	216.7	210.5	204.4	199.8	166.7	156.8
209	234,270	207.3	209.7	218.2	211.9	205.7	200.9	167.6	162.7
210	235,385	207.6	210.0	218.4	212.2	206.0	201.2	168.7	158.8
211	236,340	208.0	210.4	219.0	212.6	206.4	201.6	169.7	162.2
212	238,085	209.0	211.6	220.6	213.9	207.5	202.6	170.3	162.7
213	239,405	209.5	212.0	220.9	214.3	208.0	203.4	170.4	161.7
214	240,625	210.1	212.6	221.2	214.8	208.7	204.0	170.8	163.0
215	242,078	211.0	213.5	221.7	215.6	209.7	204.8	171.2	153.8
216	243,325	211.7	214.0	221.8	216.0	210.4	205.4	171.6	153.2
217	245,045	213.7	216.1	223.5	218.2	212.3	207.0	172.0	160.2
218	245,835	214.3	216.8	224.3	219.0	213.0	207.7	172.8	161.8
219	246,620	214.5	217.0	224.5	219.1	213.1	207.9	175.2	164.5
220	247,700	215.7	218.3	226.0	220.4	214.3	208.9	177.3	171.2
221	248,880	216.2	218.8	226.6	221.0	214.8	209.5	183.2	171.6
222	249,340	216.3	219.0	226.7	221.1	215.0	209.6	183.5	171.0
223	250,455	216.5	219.1	226.6	221.2	215.2	210.2	184.5	174.5
224	251,585	218.3	220.9	228.8	223.1	217.0	212.0	184.6	177.0
225	252,740	219.6	222.3	230.4	224.5	218.3	213.4	184.8	180.5
226	253,845	220.6	223.4	232.2	225.8	219.2	214.2	184.8	179.7
227	255,675	221.7	224.5	233.3	226.8	220.4	215.4	184.9	176.1
228	257,343	222.6	225.2	233.7	227.5	221.2	216.3	185.1	171.2
229	258,905	223.7	226.4	234.9	228.7	222.4	217.3	186.0	168.6
230	260,055	225.2	228.0	236.7	230.3	223.8	218.6	186.4	177.9
231	260,779	225.7	228.4	237.0	230.7	224.3	219.0	186.7	177.2
232	261,564	226.0	228.8	237.3	231.0	224.7	219.4	187.0	167.5
233	262,349	226.3	229.0	237.6	231.3	225.0	219.8	190.6	181.0
234	263,436	227.1	229.8	238.3	232.0	225.8	220.7	194.3	181.7
235	264,393	228.0	230.7	239.1	232.9	226.7	221.7	195.6	175.0
236	265,388	228.7	231.4	240.4	233.7	227.4	222.3	195.8	180.7
Yellow Creek	265,540	--	--	--	--	--	--	--	--
237	266,728	230.4	233.1	242.0	235.4	229.0	223.9	195.9	188.3
238	267,600	231.0	233.7	242.6	236.0	229.7	224.7	197.9	181.2
239	268,935	231.7	234.4	243.2	236.7	230.5	225.5	198.6	185.8
240	270,063	232.8	235.6	244.5	237.9	231.5	226.6	201.2	194.2
Bullock Bridge	270,295	--	--	--	--	--	--	--	--

Footnotes at end of table.

Table 5.--Profile elevations for the Umpqua River above Scottsburg--Continued

Cross section	Distance upstream from Scottsburg bridge (feet)	Elevation, in feet above mean sea level							
		100-year flood (adjusted)[1]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[2]
241	270,395	233.5	236.2	245.3	238.5	232.2	227.3	202.2	194.2
242	271,160	235.0	237.8	247.0	240.2	233.7	228.8	203.4	198.4
243	271,880	236.5	239.2	248.3	241.6	235.1	230.2	204.2	201.0
244	272,752	237.5	240.3	249.4	242.6	236.1	231.3	207.3	201.5
245	273,747	239.7	242.3	251.2	244.5	238.4	233.9	207.6	190.0
246	274,744	239.7	242.3	251.2	244.5	238.4	233.9	208.0	190.0
247	275,774	241.7	244.3	253.1	246.5	240.4	235.9	208.5	199.0
248	276,934	243.1	245.7	254.5	247.9	241.7	237.3	209.0	201.6
249	278,184	243.5	246.0	254.7	248.2	242.1	237.7	210.2	201.0
250	279,274	244.3	246.8	255.3	249.0	243.0	238.5	210.5	202.7
251	280,119	244.8	247.3	255.8	249.5	243.5	239.0	210.7	193.4
252	281,194	246.2	248.9	257.8	251.4	244.9	240.2	211.0	200.7
253	282,307	247.2	249.9	259.4	252.4	245.9	241.2	211.9	202.0
254	283,429	248.4	251.0	260.0	253.3	247.1	242.4	212.2	207.0
255	284,429	249.3	251.8	260.4	254.0	248.0	243.3	212.3	199.5
256	285,317	250.2	252.8	261.5	255.0	248.9	244.0	212.6	201.0
257	286,277	251.8	254.5	263.6	256.8	250.4	245.5	213.6	204.4
258	287,662	253.3	256.1	265.4	258.5	251.9	246.7	218.3	202.3
259	288,712	253.9	256.7	266.2	259.1	252.5	247.4	220.7	210.0
260	289,767	254.5	257.2	266.6	259.6	253.0	248.2	220.9	212.8
261	290,882	255.4	258.0	267.2	260.4	254.0	249.2	221.0	202.4
262	292,177	256.6	259.2	268.1	261.5	255.3	250.7	221.6	209.0
263	293,307	258.0	260.5	269.4	262.8	256.7	252.1	222.7	208.2
264	294,515	259.7	262.1	270.8	264.3	258.3	253.8	224.6	208.0
265	295,580	260.0	262.5	271.0	264.7	258.8	254.3	229.6	217.5
266	296,870	261.4	263.8	272.0	266.0	260.1	255.5	230.6	219.0
267	298,815	262.5	264.9	273.2	267.1	261.2	256.6	231.0	213.3
268	300,440	264.0	266.6	275.4	268.9	262.7	257.9	231.2	220.4
269	301,548	265.0	267.5	276.3	269.9	263.6	258.8	232.0	219.7
270	303,238	266.8	269.3	277.8	271.5	265.5	260.9	233.0	212.0
271	304,543	267.9	270.4	278.9	272.6	266.6	262.0	233.5	217.0
272	305,408	269.0	271.5	279.9	273.7	267.7	263.2	235.2	226.0
273	306,023	269.5	272.0	280.3	274.2	268.2	263.8	236.2	230.0
274	306,997	270.9	273.3	281.5	275.4	269.6	265.4	236.8	228.5
275	308,097	271.8	274.3	282.3	276.4	270.6	266.4	240.2	236.0
276	309,197	273.6	276.0	284.5	278.2	272.3	268.0	241.8	237.0
277	310,157	274.9	277.4	285.8	279.6	273.6	269.4	243.0	238.0
278	311,015	276.1	278.6	287.0	280.8	274.8	270.6	245.2	236.0
279	312,021	276.8	279.2	287.7	281.4	275.5	271.4	245.5	226.0
280	313,166	277.3	279.8	288.3	282.0	276.0	271.9	245.8	224.0
281	314,016	278.1	280.6	289.0	282.8	276.8	272.7	246.0	233.0
282	314,888	279.3	281.8	290.3	284.0	278.0	273.7	246.3	236.8
283	315,953	280.9	283.4	291.8	285.6	279.5	275.1	247.5	240.0
284	317,060	282.2	284.6	292.7	286.7	280.8	276.5	249.0	241.0
285	318,230	283.0	285.4	293.2	287.5	281.7	277.3	249.2	236.7
286	319,073	283.6	286.0	293.7	288.0	282.3	278.0	249.5	234.0
287	319,893	285.0	287.5	295.4	289.6	283.6	279.2	250.5	244.5
288	320,758	285.7	288.2	296.2	290.4	284.4	279.8	250.6	239.0
289	321,758	286.0	288.5	296.5	290.7	284.6	280.2	251.2	240.0
290	322,795	286.7	289.3	297.8	291.5	285.2	280.8	251.2	236.0
291	323,835	287.3	289.8	298.2	292.0	285.9	281.4	251.2	240.0
292	324,802	287.8	290.2	298.5	292.4	286.4	282.0	251.2	242.0
Wolf Creek	325,520	--	--	--	--	--	--	--	--
293	326,087	289.0	291.2	298.9	293.1	287.7	283.4	251.4	237.4
294	326,977	289.7	292.0	300.0	294.0	288.4	284.0	251.8	241.3
295	327,872	290.4	292.7	300.5	294.6	289.0	284.6	352.2	239.4
296	329,622	292.3	294.6	301.9	296.5	290.9	286.4	255.4	240.5
Tyee access bridge	330,470	--	--	--	--	--	--	--	--
297	330,632	292.8	295.0	302.5	297.0	291.4	287.0	257.6	241.5
298	331,782	293.7	296.0	303.6	298.0	292.4	288.0	259.0	243.0
299	333,022	296.3	298.7	307.0	300.9	294.9	290.4	262.7	250.2
300	333,947	297.3	299.8	308.1	302.0	295.9	291.5	263.6	245.6
301	334,957	298.8	301.3	309.9	303.6	297.4	293.0	264.0	256.0
302	336,169	299.7	302.2	310.9	304.5	298.3	293.9	265.7	258.7

Footnotes at end of table.

Table 5.--Profile elevations for the Umpqua River above Scottsburg--Continued

Cross section	Distance upstream from Scottsburg bridge (feet)	Elevation, in feet above mean sea level							
		100-year flood (adjusted)[1]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[2]
303	337,309	300.6	303.0	311.8	305.4	299.2	294.8	266.4	257.4
304	338,584	301.9	304.4	313.2	306.8	300.5	296.1	269.8	262.3
305	339,739	303.2	305.6	314.3	308.0	301.8	297.4	272.0	265.0
306	340,794	304.3	306.8	315.7	309.2	302.9	298.5	273.5	267.5
307	341,794	305.3	307.8	316.7	310.2	303.9	299.5	275.4	260.4
308	343,519	306.4	308.9	317.8	311.3	305.0	300.6	276.4	261.5
309	344,976	308.3	310.7	319.3	313.0	306.9	302.5	276.8	267.0
310	346,194	309.8	312.3	320.7	314.5	308.5	304.1	277.6	267.0
311	347,339	311.5	314.0	322.5	316.4	310.1	305.5	278.2	265.7
312	348,462	312.2	314.8	323.2	317.0	310.8	306.2	278.8	265.8
313	349,542	313.2	315.8	324.3	318.0	311.7	307.0	279.6	267.6
314	350,367	314.2	316.8	325.5	319.0	312.7	307.9	280.3	269.0
315	351,597	314.6	317.2	326.0	319.4	313.2	308.4	280.8	272.3
316	352,809	315.4	318.0	326.8	320.3	314.0	309.0	281.4	272.6
317	353,926	316.6	319.3	328.1	321.6	315.3	310.2	282.2	272.6
318	355,038	317.9	320.6	329.5	322.9	316.6	311.6	282.7	274.1
319	356,213	318.8	321.4	330.2	323.7	317.4	312.5	283.8	272.3
320	357,413	319.6	322.2	331.1	324.5	318.2	313.4	285.6	278.6
321	358,808	320.7	323.2	332.0	325.5	319.3	314.7	290.5	285.5
322	359,638	321.0	323.6	332.3	325.8	319.7	315.2	292.3	284.0
323	360,884	322.2	324.8	333.4	327.0	320.9	316.3	293.0	268.6
324	361,939	322.7	325.3	333.9	327.5	321.4	316.8	294.0	281.0
325	363,299	323.4	326.0	334.6	328.2	322.2	317.6	295.5	285.5
326	364,852	324.8	327.3	335.8	329.6	323.5	319.1	296.5	279.5
327	366,445	326.5	329.0	337.7	331.3	325.2	320.8	297.0	287.0
328	367,480	328.4	331.0	339.9	333.4	327.0	322.7	297.4	272.7
329	368,305	329.9	332.5	341.4	335.0	328.6	324.0	297.9	287.7
330	369,145	330.8	333.5	342.3	335.9	329.5	325.0	298.2	290.0
331	369,803	331.0	333.6	342.4	336.0	329.6	325.2	299.2	283.5
332	370,603	331.4	333.9	342.6	336.3	330.0	325.6	299.6	286.0
3/333	371,355	332.4	334.9	343.5	337.3	331.1	326.7	300.9	282.7
3/334	372,355	333.7	336.0	345.3	338.7	332.0	327.5	--	--
3/335	373,465	335.8	338.3	347.5	340.5	334.1	329.4	--	--
3/336	374,355	337.9	340.3	349.3	342.2	335.8	331.3	--	--

1/ Adjusted for storage in proposed Days Creek Lake.

2/ Thalweg, low point in channel.

3/ Cross sections 333-336 correspond to cross sections 1-4 of part 1 (1972) and supersede those shown in part 1.

Table 6.--Profile elevations for the North Umpqua River, Winchester Dam to Idleyld Park

Cross section	Distance upstream from Winchester Dam (in feet)	Elevation, in feet above mean sea level						
		December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[1]
[2]1	135	454.2	458.5	453.4	449.8	447.6	437.6	423.0
2	680	455.0	459.1	454.0	450.2	448.0	437.6	423.5
3	2,680	457.5	461.6	456.6	452.6	450.2	438.0	426.5
[2]4	4,280	459.7	464.0	459.0	454.7	452.0	438.2	429.0
5	5,216	461.0	465.2	460.2	456.0	453.2	438.3	430.0
[2]6	6,290	462.4	466.4	461.0	456.9	454.2	438.5	428.0
7	6,784	463.0	467.3	461.6	457.5	454.7	438.6	425.6
[2]8	7,630	465.4	469.9	464.0	459.5	456.5	439.0	429.0
[2]9	8,500	466.1	470.5	464.7	460.3	457.3	440.0	434.0
10	9,304	466.8	471.0	465.4	461.2	458.3	443.0	436.7
11	10,627	469.4	473.1	468.2	464.1	461.1	447.6	439.0
[2]12	11,560	477.8	482.7	476.2	471.1	467.7	450.5	441.0
13	12,312	478.3	483.0	476.8	471.7	468.3	451.5	433.5
14	13,997	479.8	484.6	478.3	473.2	469.8	455.3	449.0
[3]15	15,114	481.4	486.0	480.0	475.3	472.1	458.6	451.0
16	16,569	484.9	489.0	483.7	479.4	476.2	459.6	451.0
[2]17	17,660	486.6	490.7	485.4	481.0	478.0	463.2	458.0
18	18,424	487.5	491.4	486.3	482.0	479.0	464.0	455.0
19	19,609	489.7	493.7	488.5	484.1	481.1	464.3	447.5
20	21,059	492.1	495.9	491.0	486.9	484.0	469.8	459.5
21	22,279	493.9	497.8	492.9	488.8	485.9	470.7	461.0
22	23,564	495.6	499.6	494.6	490.5	487.6	471.3	466.0
23	24,739	497.7	501.7	496.7	492.4	489.5	472.5	464.5
24	25,809	499.9	504.0	498.9	494.6	491.6	477.2	472.2
25	27,254	502.9	506.9	501.9	497.9	495.3	480.3	475.3
[2]26	28,300	504.5	508.3	503.5	499.8	497.4	484.5	480.0
27	29,184	506.1	509.8	505.2	501.6	499.5	485.6	475.6
28	30,464	509.7	513.4	508.8	505.0	502.5	486.4	478.4
29	31,459	511.5	515.2	510.6	506.8	504.2	487.0	482.5
30	32,454	514.3	518.2	513.3	509.2	506.3	489.8	470.0
31	33,699	516.0	519.9	515.0	510.9	508.1	491.8	480.3
32	35,069	519.3	523.1	518.3	514.4	511.7	495.5	480.0
33	35,994	521.3	525.3	520.3	516.3	513.6	497.0	483.5
34	37,117	523.2	526.9	522.2	518.3	515.6	497.5	490.0
35	38,572	526.7	530.5	525.8	521.6	518.7	500.9	497.0
36	39,702	528.6	532.2	527.7	523.6	520.7	503.2	497.7
37	40,916	531.3	535.0	530.4	526.4	523.4	508.2	499.7
38	42,171	536.0	540.2	535.1	530.9	527.7	510.8	503.8
[3]39	43,325	540.0	544.1	539.0	534.4	531.0	511.4	504.0
40	44,840	542.0	546.1	541.1	536.7	533.5	515.5	508.5
41	46,400	544.2	548.4	543.2	538.8	535.6	518.5	507.5
42	47,405	546.3	550.5	545.2	540.7	537.6	521.0	512.5
43	48,553	549.3	553.6	548.2	543.7	540.8	523.8	517.0
44	49,883	552.1	556.4	551.1	546.6	543.8	526.8	519.0
Dixon Creek		--	--	--	--	--	--	--
45	51,413	554.2	558.2	553.3	549.2	546.3	528.0	518.5
[2]46	52,730	556.6	560.2	555.6	551.5	548.6	533.0	528.0
47	53,678	558.5	562.3	557.6	553.4	550.6	535.5	528.0
48	55,018	563.7	567.8	562.3	557.7	554.4	536.8	510.0
Clover Creek		--	--	--	--	--	--	--
49	55,865	565.5	570.1	564.7	560.1	556.9	540.6	535.6
[2]50	56,700	569.1	573.4	568.4	564.0	561.0	543.0	540.0
51	57,500	570.8	575.2	570.1	565.8	562.8	545.3	520.0
52	58,500	572.0	576.0	571.0	566.6	563.6	545.6	527.0
53	59,858	573.0	577.2	572.2	567.8	564.7	545.8	531.3
54	61,476	576.7	580.2	576.1	572.2	569.2	548.3	543.3
[2]55	62,560	578.1	581.6	577.5	573.7	570.7	550.0	545.0
56	63,596	579.5	583.0	578.8	574.9	571.8	551.0	545.0
57	64,606	581.5	585.4	580.8	576.8	573.6	552.6	544.0
Oak Creek	64,800	--	--	--	--	--	--	--
58	65,724	584.1	588.4	583.9	579.4	576.2	553.0	548.5
59	66,784	585.8	590.3	585.5	580.9	577.6	556.8	553.0
[3]60	68,116	588.5	593.2	588.2	583.6	580.5	566.2	557.7
61	69,166	591.1	595.8	590.8	586.5	583.8	567.1	562.5
62	70,116	592.9	597.6	592.7	588.6	586.2	571.2	565.0

See footnotes at end of table.

Table 6.--Profile elevations for the North Umpqua River, Winchester Dam to Idlevld Park--Continued

Cross section	Distance upstream from Winchester Dam (in feet)	Elevation, in feet above mean sea level						
		December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[1]
63	71,336	596.3	601.0	596.0	592.1	589.8	573.1	569.0
64	72,626	600.1	605.0	599.8	595.7	593.0	575.8	568.3
65	73,606	602.3	607.2	602.0	597.6	594.9	577.2	569.0
66	74,771	605.0	610.0	604.7	600.2	597.5	580.3	576.0
67	75,791	607.4	612.4	607.1	602.5	599.8	584.0	575.5
68	76,773	610.1	615.4	609.7	604.9	602.0	586.0	572.0
69	77,940	611.9	617.1	611.5	606.8	604.0	588.6	580.0
70	79,072	617.4	622.7	617.0	612.1	609.1	590.6	583.0
[2]/71	80,000	619.4	624.7	619.1	614.3	611.4	595.0	591.0
72	80,625	619.9	625.0	619.5	614.9	612.0	596.0	564.0
73	81,910	622.2	628.0	621.8	616.7	613.6	598.0	592.3
74	82,770	623.2	628.9	622.8	617.8	614.8	599.7	587.0
75	83,565	624.6	630.1	624.2	619.3	616.3	602.0	587.0
76	84,640	627.8	633.8	627.5	622.4	619.3	603.5	589.3
Cooper Creek		--	--	--	--	--	--	--
77	85,670	630.4	636.0	630.1	625.0	621.8	606.0	597.0
78	86,600	632.4	638.1	632.0	626.8	623.7	608.1	595.4
79	87,865	634.2	639.8	633.9	629.0	626.0	610.5	603.0
80	88,885	636.7	642.2	636.4	631.3	628.3	611.0	603.4
81	89,615	638.5	643.8	638.2	633.1	630.1	612.1	604.5
82	90,945	640.7	646.1	640.4	635.5	632.6	615.6	610.5
83	91,770	641.8	647.1	641.5	636.7	633.9	617.5	610.0
84	92,837	643.9	649.2	643.6	638.9	636.1	621.8	608.7
85	94,054	646.7	652.0	646.4	641.9	639.2	624.4	614.3
86	94,954	648.8	654.0	648.4	644.1	641.5	626.3	611.0
87	96,504	651.6	657.0	651.3	647.0	644.3	630.2	619.3
Huntley Creek		--	--	--	--	--	--	--
88	97,394	653.0	658.5	652.7	648.7	646.2	630.6	615.0
89	98,634	656.6	660.4	656.4	652.3	649.5	631.0	625.2
90	99,624	658.1	661.8	657.9	653.5	650.6	634.8	630.0
91	100,644	659.0	662.6	658.8	654.5	651.6	634.8	627.0
92	101,519	660.5	664.1	660.3	656.0	653.0	635.2	630.5
93	102,545	662.2	665.8	662.0	657.7	654.8	636.0	629.5
94	103,402	663.5	667.0	663.3	659.0	655.8	637.0	633.0
95	104,567	665.2	668.7	665.0	660.7	657.5	641.9	635.5
96	105,782	667.6	671.6	667.4	663.1	660.1	644.6	639.3
97	106,764	669.5	673.4	669.3	665.2	662.4	649.5	643.3
98	107,727	672.3	676.2	672.0	668.1	665.5	651.3	638.0
Floyd Frear Bridge	107,800	--	--	--	--	--	--	--
99	108,259	673.7	677.6	673.4	669.5	666.9	651.5	643.8
Gaging station 3185	108,580	--	--	--	--	--	--	--
100	109,374	676.2	680.5	675.9	671.7	668.9	651.7	642.0
101	110,435	678.3	683.1	678.0	673.4	670.4	651.9	643.0
102	111,498	680.5	685.4	680.2	675.1	671.9	652.1	646.6
103	112,548	682.9	687.9	682.5	677.1	673.5	652.8	629.0
104	113,255	683.7	688.6	683.4	678.1	674.5	657.3	652.5
105	113,868	685.0	689.9	684.7	679.5	676.0	658.2	631.4
106	114,888	688.4	694.6	688.0	681.8	677.9	659.5	643.6
Little River	115,340	--	--	--	--	--	--	--
107	115,783	693.0	697.0	692.8	688.5	685.5	664.9	653.0
108	116,580	695.6	700.3	695.4	690.7	687.5	667.0	659.0
109	117,524	697.7	702.6	697.4	692.5	689.1	667.8	659.0
110	118,314	700.1	705.6	699.8	694.5	690.9	670.7	655.4
111	119,259	701.0	706.8	700.8	695.4	691.8	671.5	660.7
112	120,159	702.7	708.2	702.4	696.8	693.0	672.8	666.1
113	120,883	703.5	709.0	703.2	697.6	694.0	674.5	659.0
114	121,928	704.7	710.5	704.4	698.8	695.0	675.8	671.2
115	123,443	707.4	713.2	707.1	701.6	697.7	677.6	668.5
French Creek		--	--	--	--	--	--	--
116	124,697	708.5	714.4	708.2	702.8	699.0	684.6	675.6
117	125,637	709.6	715.4	709.4	704.0	700.3	686.0	665.5
Lone Rock Bridge	125,870	--	--	--	--	--	--	--

See footnotes at end of table.

Table 6.--Profile elevations for the North Umpqua River, Winchester Dam to Idleyld Park--Continued

Cross section	Distance upstream from Winchester Dam (in feet)	Elevation, in feet above mean sea level						
		December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[1]
118	126,382	711.0	717.0	710.7	705.2	701.4	686.4	678.4
119	127,320	712.4	718.2	712.1	706.9	703.4	687.1	678.0
120	127,990	714.1	719.9	713.8	708.5	705.0	687.5	680.5
121	128,748	716.0	721.9	715.8	710.3	706.9	687.9	682.4
122	129,500	718.6	724.8	718.3	712.6	709.1	689.2	677.2
123	130,100	720.4	727.0	720.1	714.2	710.4	691.6	676.0
124	130,800	721.0	727.6	720.7	714.7	711.0	692.0	677.5
125	131,415	721.6	728.1	721.3	715.3	711.6	692.3	685.4
126	132,465	724.0	730.7	723.7	717.8	714.1	695.8	691.0
127[2]	133,200	726.5	733.3	726.2	720.2	716.6	697.5	693.0
128	134,170	730.3	736.8	730.0	724.0	720.2	703.8	684.5
Private footbridge	135,100	--	--	--	--	--	--	--
129	135,112	732.5	739.0	732.2	726.4	722.6	704.2	693.2
130	135,988	734.9	742.0	734.6	728.4	724.5	705.5	693.0
131	136,663	736.7	744.0	736.4	730.0	726.0	706.5	699.0
132	137,058	737.0	744.3	736.7	730.4	726.4	706.7	695.2
133	137,730	738.1	745.4	737.8	731.6	727.6	708.4	690.0
134	138,620	739.3	746.6	739.0	732.7	728.7	710.6	699.0
135	139,770	741.1	748.4	740.8	734.9	731.0	711.2	705.0
136	140,910	743.6	750.7	743.3	737.5	733.8	712.0	693.0
137	141,800	745.6	753.0	745.2	739.2	735.3	715.4	686.5
138	143,003	746.3	753.9	746.0	740.0	736.2	716.7	710.0
139	144,005	750.0	757.6	749.6	743.6	739.8	719.7	710.0

1/ Thalweg, low point in channel.
2/ Section not shown on orthophoto map.
3/ Section revised for step-backwater computation.

Table 7.--Revised profile elevations for the South Umpqua River

Station		Distance upstream from mouth (feet)	Elevation, in feet above mean sea level							
Report reference	Map reference[1]		100-year flood (adjusted)[2]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg
1	3+40	0	399.3	400.6	404.7	401.5	398.3	395.3	363.4	356.0
2	8+75	535	--	--	--	--	--	--	363.5	351.7
3	13+05	965	--	--	--	--	--	--	363.6	357.3
4	25+15	2,175	400.4	401.6	405.9	402.5	399.0	396.0	363.8	356.5
5	38+55	3,515	--	--	--	--	--	--	366.1	363.8
6	50+10	4,670	--	--	--	--	--	--	366.7	365.5
7	64+10	6,070	400.7	402.5	406.7	403.5	400.3	397.4	366.9	366.0
8	78+10	7,470	--	--	--	--	--	--	371.8	371.0
9	84+75	8,135	--	--	--	--	--	--	372.5	369.5
10	95+60	9,220	--	--	--	--	--	--	373.0	370.7
11	100+15	9,675	401.0	403.0	407.0	404.0	401.2	399.1	373.1	370.0
12	112+60	10,920	--	--	--	--	--	--	373.2	369.0
13	124+80	12,140	--	--	--	--	--	--	373.5	371.7
14	132+65	12,925	--	--	--	--	--	--	375.4	373.0
15	138+90	13,550	401.2	3/403.6	407.3	404.4	401.8	399.9	375.6	372.3
16	151+20	14,780	--	--	--	--	--	--	375.8	375.0
17	156+35	15,295	--	--	--	--	--	--	377.1	376.0
18	166+65	16,325	401.4	3/404.2	407.5	404.7	402.3	400.5	377.7	374.2
19	177+35	17,395	--	--	--	--	--	--	378.5	376.0
20	182+40	17,900	401.7	3/404.9	407.8	405.2	403.2	401.9	380.0	377.5
21	190+60	18,720	--	--	--	--	--	--	380.2	378.0
22	198+40	19,500	--	--	--	--	--	--	380.2	380.0
23	207+75	20,435	--	--	--	--	--	--	380.2	379.5
24	225+25	22,185	403.2	3/406.8	408.8	407.0	405.8	405.0	380.4	379.0
25	239+45	23,605	404.0	3/408.2	409.5	408.2	407.4	406.4	381.8	379.5
26	249+80	24,640	404.8	3/409.0	410.0	409.0	408.3	407.5	381.8	380.0
27, 28	259+60	25,620	405.1	3/409.7	410.4	409.8	409.0	408.1	381.9	379.0
Conn Ford Bridge		25,620	--	--	--	--	--	--	--	--
29	262+30	25,890	405.2	3/409.7	410.3	409.7	408.9	408.1	381.9	378.5
30	274+60	27,120	406.0	3/411.1	411.8	411.2	410.3	409.5	382.0	380.0
31	283+50	28,010	406.4	3/412.0	412.6	412.0	411.0	410.2	383.8	382.0
32	295+20	29,180	407.1	3/413.2	413.9	413.2	412.1	411.2	385.2	380.0
33	306+20	30,280	407.8	3/414.1	414.9	414.1	413.0	412.0	386.9	385.0
34	317+20	31,380	408.6	3/415.2	416.0	415.3	414.0	413.0	387.1	379.0
35	328+20	32,480	409.4	3/416.9	417.9	417.0	415.5	414.3	387.2	380.7
36	339+35	33,595	410.0	3/417.8	418.8	417.9	416.4	415.0	387.2	381.0
37	349+15	34,575	411.0	3/419.4	420.5	419.5	417.8	416.3	387.3	363.0
38	358+95	35,555	411.5	3/419.9	421.0	420.0	418.3	416.8	389.0	381.0
39	368+95	36,555	412.2	3/421.1	422.3	421.2	419.4	417.8	389.6	376.6
40	378+35	37,495	413.2	3/422.7	423.8	422.8	420.9	419.2	391.0	389.0
41	387+65	38,425	415.1	3/424.7	426.0	424.8	422.9	421.0	394.0	393.0
42	395+90	39,250	416.6	3/426.5	427.7	426.6	424.6	422.8	396.0	387.0
43	405+70	40,230	418.1	3/428.3	429.7	428.4	426.4	424.4	396.1	391.0
44	415+25	41,185	418.6	3/428.9	430.2	429.0	426.9	425.0	396.5	387.0
45	424+05	42,065	419.4	3/429.7	431.0	429.8	427.7	425.8	396.6	389.0
46	435+05	43,165	420.7	3/431.6	433.0	431.7	429.4	427.3	397.8	395.8
47	447+80	44,440	421.6	3/432.4	433.8	432.5	430.3	428.2	398.0	380.5
48	457+10	45,370	422.2	3/433.1	434.4	433.2	431.0	428.8	398.0	390.0
49	470+90	46,750	423.2	3/434.2	435.7	434.3	432.0	429.8	400.6	392.6
50	478+70	47,530	423.9	3/435.2	436.7	435.4	433.0	430.7	400.8	386.3
51	487+45	48,405	424.5	3/436.4	437.9	436.5	434.0	431.	401.0	392.0
52	496+55	49,315	425.7	3/437.0	438.5	437.1	434.7	432.1	401.1	397.0
53	502+05	49,865	426.4	3/437.7	439.3	437.8	435.4	433.0	402.2	398.0
54	509+30	50,590	427.2	3/438.4	440.0	438.6	436.2	433.8	407.0	399.0
55	518+40	51,500	428.2	3/439.4	440.9	439.5	437.2	434.9	407.5	393.5
56	531+00	52,760	429.2	3/440.8	442.2	440.9	438.6	436.2	407.6	399.0
57	540+60	53,720	430.4	3/442.2	443.7	442.4	440.0	437.6	408.1	402.6
58	555+50	55,210	432.2	3/444.2	445.7	444.3	441.8	439.4	408.2	399.2
59	564+60	56,120	433.1	3/445.3	446.9	445.4	442.9	440.4	409.5	404.0
60	572+30	56,890	434.3	3/446.5	448.2	446.7	444.1	441.6	411.0	407.5
61	582+95	57,955	435.3	3/447.3	449.0	447.4	444.9	442.4	415.3	410.8
Deer Creek	--	58,035	--	--	--	--	--	--	--	--
62	596+75	59,335	436.5	3/448.3	449.7	448.2	445.8	443.4	415.5	408.0
63	611+50	60,810	436.3	3/449.5	452.1	449.3	446.2	443.4	415.6	411.6
64	625+25	62,185	437.9	3/450.8	453.2	450.6	447.6	444.8	415.8	407.3

Footnotes at end of table.

Table 7.--Revised profile elevations for the South Umpqua River--Continued

Station		Distance upstream from mouth (feet)	Elevation, in feet above mean sea level							
Report reference	Map reference[1]		100-year flood (adjusted)[2]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg
65	635+20	63,180	438.7	3/451.5	454.0	451.3	448.4	445.6	415.9	407.0
66	643+55	64,015	439.2	3/451.9	454.3	451.7	448.8	446.0	417.0	409.0
67	651+70	64,830	439.9	3/452.7	455.0	452.5	449.7	446.9	417.4	411.5
68	661+80	65,840	440.9	3/453.7	456.0	453.5	450.6	447.9	417.8	412.8
69	675+90	67,250	442.1	3/454.8	457.0	454.6	451.8	449.0	423.1	421.8
70	683+70	68,030	442.9	3/455.4	457.7	455.2	452.4	449.7	423.8	416.0
71	694+65	69,125	443.7	3/456.0	458.1	455.8	453.0	450.4	425.2	422.2
72	703+00	69,960	445.3	3/457.1	459.2	457.0	454.3	451.8	426.0	423.0
73	712+85	70,945	446.9	3/458.1	460.0	458.0	455.5	453.1	426.7	423.2
74	722+95	71,955	449.7	3/461.6	463.5	461.5	458.9	456.4	427.5	425.0
75	736+85	73,345	452.1	3/464.2	466.1	464.1	461.5	458.9	431.0	427.0
76	748+65	74,525	453.4	3/465.8	467.7	465.7	463.0	460.4	431.2	424.7
77	759+65	75,625	454.6	3/467.1	469.0	467.0	464.3	461.7	432.5	430.5
78	771+85	76,845	455.2	3/467.6	469.4	467.4	464.8	462.2	433.8	431.3
79	788+75	78,535	456.8	3/468.9	470.8	468.8	466.1	463.5	439.3	437.0
80	801+10	79,770	457.4	3/469.1	471.0	469.0	466.4	463.9	440.6	432.0
81	807+15	80,375	457.8	3/469.4	471.3	469.3	466.7	464.3	440.7	428.0
82, 83	817+50	81,410	459.2	3/471.4	473.1	471.2	468.6	466.1	441.5	428.5
Highway I-5 bridge		81,410	--	--	--	--	--	--	--	--
84	828+20	82,480	459.5	3/471.9	473.7	471.8	469.2	466.5	441.6	434.0
85	840+10	83,670	460.8	3/473.4	475.1	473.2	470.6	467.9	441.8	436.8
86	850+50	84,710	462.0	3/474.1	476.0	474.0	471.5	468.9	442.0	437.0
87	855+40	85,200	462.6	3/474.6	476.4	474.4	472.0	469.4	443.1	438.0
88	863+70	86,030	463.5	3/475.3	477.0	475.2	472.8	470.3	443.1	437.0
89	876+75	87,335	464.9	3/476.9	478.6	476.8	474.3	471.8	443.2	437.0
90	890+65	88,725	466.4	3/478.6	480.3	478.5	476.0	473.4	443.3	432.6
91	905+60	90,220	467.4	3/479.1	480.9	479.0	476.6	474.1	448.2	446.4
92	915+35	91,195	468.3	3/479.6	481.3	479.5	477.2	474.8	450.5	448.5
93	922+35	91,895	469.0	3/480.1	481.7	480.0	477.7	475.4	450.7	447.5
94	932+75	92,935	470.3	3/481.1	482.6	481.0	478.8	476.6	450.8	446.0
95	943+90	94,050	471.3	3/481.9	483.4	481.8	479.5	477.3	454.8	452.0
96	949+55	94,615	471.6	3/481.9	483.4	481.8	479.6	477.5	454.8	445.0
97	961+85	95,845	472.2	3/482.8	484.2	482.7	480.4	478.2	454.9	448.0
98	980+90	97,750	473.7	3/484.8	486.3	484.7	482.4	480.1	455.2	439.5
99	995+00	99,160	475.1	3/486.3	487.6	486.2	484.1	481.9	455.3	445.8
100	1011+10	100,770	477.1	3/488.3	489.5	488.2	486.1	483.9	455.3	447.8
101	1020+55	101,715	478.2	3/489.1	490.3	489.0	487.1	484.9	456.8	451.0
102	1030+25	102,685	479.3	3/490.1	491.3	490.0	488.4	486.2	456.8	444.0
103	1048+30	104,490	480.1	3/490.8	492.0	490.7	489.0	487.0	457.0	454.0
104	1059+55	105,615	481.2	3/491.6	492.7	491.5	489.8	487.8	458.1	453.0
105	1067+85	106,445	482.5	3/492.6	493.7	492.5	490.9	489.2	460.8	455.0
106	1077+85	107,445	484.0	3/493.6	494.7	493.5	492.0	490.5	461.1	457.0
107	1091+40	108,800	484.5	3/495.9	3/496.6	3/495.5	3/494.0	3/492.5	465.3	458.5
108, 109	1096+50	109,310	485.7	3/496.8	3/497.5	3/496.4	3/495.0	3/493.5	465.6	462.5
Gaging station 3120 and Highway 99 bridge		109,430	--	--	--	--	--	--	--	--
110	1103+40	110,000	487.3	3/499.5	3/500.4	3/499.4	3/497.2	3/495.2	466.0	463.0
111	1111+10	110,770	488.7	3/500.0	3/500.9	3/499.9	3/498.0	3/496.1	466.1	460.0
112	1122+75	111,935	489.8	3/500.5	3/501.4	3/500.4	3/498.8	497.1	466.9	448.5
113	1134+55	113,115	490.5	3/501.0	3/501.9	3/500.9	3/499.2	497.7	467.0	464.0
114	1145+20	114,180	491.7	3/501.8	3/502.8	3/501.8	3/500.2	498.7	467.2	462.0
115	1152+70	114,930	492.3	3/502.6	3/503.5	3/502.5	501.0	499.6	467.4	462.5
116	1162+00	115,860	493.7	3/503.4	3/504.4	3/503.4	502.0	500.5	468.5	461.0
117	1172+00	116,860	494.7	3/504.3	3/505.2	3/504.2	502.9	501.5	470.1	462.0
118	1185+60	118,220	495.6	3/505.4	3/506.4	3/505.4	504.0	502.5	470.4	464.0
119	1196+45	119,305	496.7	3/506.8	3/507.8	3/506.7	505.2	503.6	470.5	464.5
120	1204+70	120,130	497.7	3/508.0	3/509.1	508.0	506.3	504.6	470.7	467.2
121	1216+95	121,355	499.3	3/509.2	3/510.3	509.2	507.6	506.0	473.8	463.5
122	1227+80	122,440	500.0	3/510.1	3/511.1	510.0	508.4	506.7	474.6	472.5
123	1236+80	123,340	501.2	3/511.1	3/512.0	511.0	509.3	507.6	474.9	468.5
124	1246+65	124,325	501.8	3/511.5	3/512.5	511.4	509.7	508.0	475.4	468.5
125	1258+00	125,460	502.9	3/512.9	3/513.9	512.8	511.0	509.3	476.3	466.5
126	1267+20	126,380	504.2	3/513.8	3/514.8	513.7	512.0	510.5	478.5	476.5
127	1274+80	127,140	505.9	3/514.9	3/515.8	514.8	513.3	511.9	479.8	478.3
128	1285+00	128,160	507.6	3/516.8	3/517.6	3/516.8	3/515.5	3/513.9	484.2	480.5
129	1293+00	128,960	508.5	3/517.4	3/518.2	3/517.4	3/516.0	3/514.5	484.5	482.0

Footnotes at end of table.

Table 7.--Revised profile elevations for the South Umpqua River--Continued

Station		Distance upstream from mouth (feet)	Elevation, in feet above mean sea level							
Report reference	Map reference[1]		100-year flood (adjusted)[2]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg
130	1301+65	129,825	509.4	[3]/517.9	[3]/518.7	[3]/517.9	[3]/516.5	[3]/515.0	484.8	480.8
131	1310+85	130,745	510.4	[3]/518.5	[3]/519.2	[3]/518.4	[3]/517.0	[3]/515.6	485.4	481.5
Lookingglass Creek		130,800	--	--	--	--	--	--	--	--
132	1323+20	131,980	511.4	[3]/519.2	[3]/520.0	[3]/519.0	[3]/517.7	[3]/516.3	486.5	481.5
133	1335+95	133,255	512.2	[3]/520.0	[3]/521.0	[3]/519.8	[3]/518.5	[3]/517.2	488.8	484.3
134	1346+80	134,340	512.8	[3]/520.6	[3]/521.6	[3]/520.5	[3]/519.1	[3]/517.8	489.8	483.8
135	1357+25	135,385	513.4	[3]/521.4	[3]/522.4	[3]/521.2	[3]/519.8	[3]/518.5	490.4	489.5
136	1366+90	136,350	514.1	[3]/522.0	[3]/523.0	[3]/521.8	[3]/520.4	[3]/519.1	491.5	489.0
137	1378-40	137,500	514.6	[3]/523.0	523.9	522.6	521.2	519.7	497.5	494.5
138	1386+55	138,315	515.1	[3]/523.8	524.7	523.4	522.0	520.4	498.3	497.0
139	1396+85	139,345	516.0	[3]/524.6	525.6	524.2	523.0	521.3	499.0	497.5
140	1405+05	140,165	516.8	[3]/525.6	526.6	525.3	524.0	522.3	499.2	496.0
141	1414+60	141,120	518.4	[3]/528.1	529.3	527.8	526.2	524.3	499.4	494.5
142	1428+35	142,495	520.8	[3]/531.8	533.4	531.4	529.5	527.4	500.6	498.4
143	1437+05	143,365	521.5	[3]/533.0	534.6	532.5	530.4	528.3	500.8	500.0
144	1447+65	144,425	522.2	[3]/534.2	535.9	533.7	531.4	529.2	501.0	496.0
145	1458+15	144,475	523.0	[3]/535.0	536.8	534.5	532.2	530.0	501.2	499.5
146	1470+20	146,680	524.4	[3]/537.3	539.2	536.8	534.2	531.9	501.6	497.5
147	1478+80	147,540	525.4	[3]/538.9	541.0	538.3	535.5	533.1	503.8	496.5
148	1489+70	148,630	526.7	[3]/540.3	542.3	539.8	537.1	534.6	504.7	502.0
149	1498+25	149,485	527.4	[3]/541.2	543.1	540.7	538.0	535.4	505.5	501.0
150	1506+25	150,285	528.1	[3]/542.0	544.0	541.6	538.9	536.2	505.9	501.0
151	1517+60	151,420	529.6	[3]/543.8	546.1	543.3	540.4	537.6	510.7	505.0
152	1528+15	152,475	531.1	[3]/544.8	547.4	544.3	541.3	538.6	510.8	502.0
153	1536+80	153,340	532.8	[3]/546.5	548.9	545.9	543.0	540.4	513.0	505.0
154	1551+65	154,825	534.8	[3]/548.3	550.6	547.7	544.8	542.4	515.2	509.0
155	1557+80	155,440	535.0	[3]/548.4	550.9	548.0	545.0	542.5	515.4	511.5
156	1571+20	156,780	537.2	[3]/550.7	552.9	550.2	547.3	544.9	515.6	506.5
157	1579+75	157,635	538.6	[3]/551.4	553.5	550.9	548.0	545.7	516.0	508.0
158	1590+75	158,735	540.2	[3]/552.4	554.4	552.0	549.4	547.2	516.2	511.7
159	1605+10	160,170	541.2	[3]/552.8	554.8	552.4	550.0	547.8	520.2	519.0
160	1613+10	160,970	542.0	[3]/553.3	555.1	552.8	550.6	548.4	520.4	517.4
161	1618+60	161,520	542.4	[3]/553.6	555.4	553.2	551.0	548.8	522.6	516.0
162	1629+85	162,645	543.4	[3]/554.4	556.1	554.0	551.8	549.7	523.0	518.5
163	1636+25	163,285	543.9	[3]/554.4	556.1	554.0	552.0	549.9	524.0	522.5
164	1644+40	164,100	544.5	[3]/555.4	557.0	555.0	552.8	550.7	524.3	517.0
165	1654+25	165,085	545.5	[3]/556.8	558.6	556.4	554.1	551.9	524.4	522.0
166, 167	1661+85	165,845	546.7	[3]/558.2	560.0	557.8	555.4	553.1	524.9	523.0
Mary Moore Bridge		165,845	--	--	--	--	--	--	--	--
168	1667+80	166,440	547.8	[3]/559.6	561.6	559.2	556.7	554.4	527.6	525.0
169	1677+15	167,375	548.7	[3]/560.5	562.4	560.0	557.5	555.2	528.0	527.0
170	1691+75	168,835	550.0	[3]/562.0	564.0	561.6	559.0	556.7	531.7	530.7
171	1703+65	170,025	550.9	[3]/562.6	564.6	562.1	559.6	557.4	533.6	528.5
172	1720+55	171,715	552.4	[3]/563.7	565.6	563.2	560.8	558.7	536.8	516.0
173	1736+40	173,300	553.9	[3]/564.9	566.7	564.4	562.2	560.1	537.0	531.0
174	1750+80	174,740	555.5	[3]/566.5	568.1	566.1	563.9	561.9	537.2	534.7
175	1764+65	176,125	556.5	[3]/567.8	569.4	567.4	565.1	563.0	537.5	536.0
176	1780+45	177,705	557.6	[3]/569.1	570.8	568.7	566.3	564.1	537.8	529.0
177	1785+65	178,225	558.6	[3]/570.1	571.8	569.7	567.2	565.0	537.9	530.0
178	1793+05	178,965	560.5	[3]/572.9	575.0	572.4	569.7	567.3	540.2	539.0
179	1811+50	180,810	562.5	[3]/575.2	577.4	574.7	571.9	569.5	540.4	535.6
180	1824+80	182,140	563.8	[3]/576.4	578.5	575.9	573.2	570.8	540.6	538.4
181	1830+80	182,740	564.6	[3]/577.3	579.3	576.9	574.2	571.8	540.7	539.5
182	1846+35	184,295	566.1	[3]/579.2	581.2	578.7	576.1	573.6	541.0	537.5
183	1858+60	185,520	567.3	[3]/581.0	583.2	580.5	577.6	575.0	541.8	534.0
184	1867+00	186,360	568.5	[3]/582.4	584.7	581.9	579.0	576.3	543.0	526.0
185	1879+25	187,585	570.2	[3]/584.5	586.8	583.9	580.9	578.2	543.1	537.0
186	1885+55	188,215	571.0	[3]/585.5	587.9	585.0	581.9	579.1	546.3	541.0
187	1894+80	189,140	572.0	[3]/586.6	589.0	586.0	582.9	580.1	549.5	546.5
188	1905+95	190,255	573.5	[3]/588.0	590.4	587.4	584.2	581.5	550.8	548.5
189	1920+50	191,710	575.2	[3]/590.0	592.7	589.4	586.1	583.2	552.2	549.0
190	1932+80	192,940	577.0	[3]/592.2	594.9	591.5	588.1	585.2	554.6	538.5
191	1946+60	194,320	579.6	[3]/594.1	596.6	593.5	590.4	587.8	555.1	549.0
192	1958+00	195,460	581.9	[3]/596.4	598.8	595.8	592.7	590.2	555.2	552.0
193	1968+90	196,550	583.8	[3]/598.5	601.0	597.9	594.6	591.9	556.9	555.0

Footnotes at end of table.

Table 7.--Revised profile elevations for the South Umpqua River--Continued

Station		Distance upstream from mouth (feet)	Elevation, in feet above mean sea level							
Report reference	Map reference[1]		100-year flood (adjusted)[2]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg
194	1981+65	197,825	585.2	[3]600.4	602.9	599.6	596.3	593.5	559.5	552.5
195	1993+45	199,005	585.5	[3]600.6	603.2	600.0	596.6	593.8	565.7	556.5
196	2002+25	199,885	586.2	[3]601.1	603.7	600.5	597.1	594.1	570.2	555.0
197	2012+20	200,880	587.0	[3]602.0	604.5	601.4	598.0	595.2	570.4	566.5
198	2026+80	202,340	591.8	[3]606.1	608.8	605.4	602.0	599.3	571.3	568.5
199	2035+55	203,215	594.2	[3]607.2	611.2	607.9	604.4	601.7	573.0	572.0
Myrtle Creek	--	203,265	--	--	--	--	--	--	--	--
200	2047+45	204,405	597.0	[3]608.9	613.7	610.4	607.1	604.6	574.4	571.0
201	2062+60	205,920	599.4	[3]612.6	616.3	613.1	609.9	607.2	578.2	564.0
202	2086+65	208,325	601.7	[3]615.0	618.9	615.5	612.1	609.3	579.5	577.5
203	2102+35	209,895	603.0	[3]615.5	619.2	616.0	612.6	610.0	579.7	576.5
204	2114+70	211,130	604.2	[3]616.5	620.1	617.0	613.9	611.5	579.9	577.5
205	2126+80	212,340	605.0	[3]617.5	621.0	618.0	615.0	612.5	581.5	579.0
206	2139+85	213,645	605.9	[3]619.0	622.5	619.5	616.3	613.7	582.5	580.5
207	2153+15	214,975	607.0	[3]620.0	623.1	620.4	617.6	615.1	582.6	578.0
208	2166+10	216,270	608.1	[3]620.8	623.7	621.2	618.8	616.5	582.6	579.5
209	2179+05	217,565	609.4	[3]621.8	624.4	622.1	620.0	617.9	583.3	582.0
210	2189+20	218,580	610.2	[3]622.7	625.2	623.0	620.9	618.8	583.5	582.5
211	2204+55	220,115	611.5	[3]624.2	626.5	624.5	622.6	620.5	589.3	586.5
212	2211+70	220,830	612.3	[3]624.9	627.4	625.3	623.3	621.2	589.3	588.5
213	2224+85	222,145	613.1	[3]625.6	628.2	626.2	624.0	622.0	589.8	582.0
214	2240+20	223,680	614.5	[3]627.6	630.2	628.3	625.9	623.8	590.2	586.0
215	2254+80	225,140	615.9	[3]629.2	631.8	629.9	627.5	625.1	592.5	591.0
216	2272+55	226,915	617.4	[3]631.1	633.9	631.9	629.4	626.7	594.5	590.5
217	2282+75	227,935	618.2	[3]631.8	634.8	632.7	630.2	627.5	596.0	593.0
218	2294+45	229,105	619.8	[3]633.5	636.9	634.8	632.0	629.2	600.0	598.5
219	2303+20	229,980	620.7	634.1	637.8	635.6	632.8	629.9	600.2	596.0
220	2312+05	230,865	622.2	635.1	638.8	636.8	634.2	631.2	601.0	597.5
Pruner Bridge	--	230,965	--	--	--	--	--	--	--	--
221	2329+65	232,625	624.4	637.3	640.5	638.6	635.9	632.8	603.8	601.5
222	2341+50	233,810	625.7	638.2	641.5	639.6	636.9	633.9	607.0	604.5
223	2349+90	234,650	627.3	639.6	643.3	641.1	638.3	635.3	607.5	601.5
224	2363+15	235,975	630.2	641.8	645.5	643.4	640.6	637.8	610.7	603.5
225	2380+25	237,685	634.5	644.2	647.8	645.6	643.1	640.7	619.6	614.5
226	2390+15	238,675	637.0	647.1	651.4	648.7	645.8	643.4	620.2	613.0
227	2402+80	239,940	639.6	648.8	652.9	650.4	647.8	645.6	621.1	618.5
228	2411+45	240,805	641.0	650.0	654.0	651.4	649.0	647.0	621.2	619.0
229	2417+45	241,405	641.7	650.6	654.6	652.0	649.6	647.7	622.0	620.0
230	2422+55	241,915	642.0	651.0	655.0	652.4	650.0	648.0	622.5	618.5
231	2435+65	243,225	642.9	652.0	656.0	653.4	651.0	649.0	625.4	621.5
232	2445+25	244,185	643.6	652.7	656.7	654.1	651.7	649.6	626.6	623.5
233	2461+15	245,775	645.4	654.5	658.3	655.9	653.5	651.4	627.6	621.5
Cow Creek	--	245,830	--	--	--	--	--	--	--	--
234	2469+15	246,575	646.4	655.4	659.2	656.8	654.4	652.3	634.1	632.0
235	2480+10	247,670	648.0	657.3	661.8	658.8	656.1	654.0	634.2	630.0
236	2490+10	248,670	649.1	658.1	662.7	659.6	656.8	654.7	635.6	634.0
237	2498+10	249,470	651.1	660.8	665.4	662.2	659.4	657.2	637.7	636.0
238	2505+15	250,175	652.3	662.5	667.2	664.0	661.0	658.7	637.8	631.0
239	2520+75	251,735	654.2	664.0	668.7	665.4	662.5	660.2	640.5	636.0
240	2530+15	252,675	655.5	665.6	670.7	667.2	664.0	661.7	642.2	636.0
241	2542+70	253,930	657.2	666.7	671.7	668.2	665.1	662.8	649.1	648.0
242	2561+75	255,835	660.7	669.8	674.4	671.3	668.3	666.0	649.2	643.0
243	2575+80	257,240	664.9	675.9	679.8	677.2	674.2	671.7	649.4	640.5
244	2588+75	258,535	668.4	679.7	684.2	681.0	678.1	675.9	650.2	649.0
245	2601+05	259,765	670.9	682.2	686.8	683.6	680.8	678.6	651.2	644.0
246	2612+85	260,945	673.7	684.7	689.4	686.1	683.3	680.9	658.9	658.0
247	2621+20	261,780	675.3	685.8	690.6	687.3	684.3	681.9	660.8	659.5
248	2633+50	263,010	677.6	687.4	692.2	688.8	685.8	683.6	666.6	658.5
249	2643+00	263,960	679.0	689.0	694.2	690.6	687.4	685.2	666.8	661.0
250	2653+75	265,035	681.6	690.9	695.4	692.1	689.6	687.7	667.0	664.5
251	2658+90	265,550	682.7	692.1	696.3	693.3	691.0	689.1	668.0	665.0
252	2666+90	266,350	684.4	693.5	697.4	694.6	692.4	690.6	670.8	669.0
Canyon Creek	--	266,550	--	--	--	--	--	--	--	--
253	2671+60	266,820	685.4	694.0	697.8	695.2	693.0	691.3	672.0	670.5
254	2679+10	267,570	687.1	696.1	699.8	697.2	695.0	693.2	672.1	669.5
255	2699+10	269,570	691.2	700.8	704.6	701.9	699.4	697.4	679.6	678.0

Footnotes at end of table.

Table 7.--Revised profile elevations for the South Umpqua River--Continued

Station		Distance upstream from mouth (feet)	Elevation, in feet above mean sea level							
Report reference	Map reference[1]		100-year flood (adjusted)[2]	December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg
256	2703+40	270,000	692.0	701.4	705.4	702.6	700.0	697.8	679.8	676.5
257	2720+70	271,730	697.3	704.4	708.5	705.6	703.2	702.0	681.2	679.0
258	2728+45	272,505	698.0	705.2	709.2	706.4	704.0	702.6	685.5	684.0
259	2744+30	274,090	699.4	707.0	710.9	708.1	705.8	704.3	685.6	683.0
260	2766+35	276,295	701.7	710.3	714.0	711.4	709.0	707.2	685.8	684.0
261	2775+95	277,255	703.3	712.7	716.0	713.6	711.3	709.6	686.7	684.5
262	2786+90	278,350	705.4	715.6	719.2	716.7	714.2	712.2	690.7	688.5
263	2801+45	279,805	708.6	717.1	720.8	718.3	716.0	714.0	699.7	699.0
264	2813+10	280,970	711.8	718.7	722.2	719.8	717.5	715.8	701.5	700.0
265	2825+95	282,255	714.0	721.3	724.6	722.3	720.2	718.5	702.2	700.0
266	2840+30	283,690	716.2	725.0	728.3	726.0	723.6	721.5	702.3	700.5
267	2849+45	284,605	717.7	726.6	730.3	727.6	725.2	723.2	703.0	701.5
268	2858+85	285,545	721.2	730.7	734.1	731.8	729.2	727.0	704.8	703.0

1/ Identification number on photogrammetric map.

2/ Adjusted for storage in proposed Days Creek Lake.

3/ Profile revised April 1973.

Table 8.--Revised profile elevations for the North Umpqua River, mouth to Winchester Dam[1/]

Station		Distance upstream from mouth (feet)	Elevation, in feet above mean sea level						
Cross section	Map reference[2/]		December 1964 flood	500-year flood	100-year flood	25-year flood	10-year flood	Low water	Thalweg[3/]
1	4+00	100	400.6	404.7	401.5	398.3	395.3	363.4	360.4
2	18+35	1,535	401.5	405.5	402.1	398.8	395.6	363.8	360.0
3	29+45	2,645	402.5	406.2	402.7	399.3	395.8	364.2	359.0
4	42+05	3,905	403.3	406.9	403.5	399.8	396.0	366.8	361.0
5	57+25	5,425	404.5	407.8	404.4	400.4	396.4	367.2	363.0
6	63+65	6,065	405.0	408.2	404.7	400.7	396.6	375.2	370.5
7	77+90	7,490	406.0	409.0	405.5	401.2	396.8	375.3	370.2
8	89+85	8,685	406.8	409.7	406.1	401.7	397.2	375.4	369.0
Gaging station	3195	9,250	407.2	410.0	406.5	402.0	397.5	375.4	--
9, 10	99+50	9,650	408.3	411.2	407.7	403.0	398.2	375.4	367.4
Brown's Bridge	--	9,650	--	--	--	--	--	--	--
11	105+00	10,200	409.7	412.8	409.0	404.1	399.2	375.4	366.0
12	113+45	11,045	410.5	414.0	409.9	405.0	400.0	375.5	363.3
13	124+05	12,105	412.3	415.6	411.7	406.8	402.2	380.3	375.5
14	135+95	13,295	413.7	416.9	413.0	408.5	404.6	382.4	373.0
15	159+30	15,630	416.3	419.9	415.6	411.1	407.4	389.0	376.0
16	170+35	16,735	417.9	421.6	417.2	412.6	409.1	389.7	382.2
17	179+40	17,640	419.9	423.5	419.2	414.8	411.5	390.3	384.8
18	188+85	18,585	421.8	425.4	421.1	416.7	413.3	392.2	386.2
19	203+35	20,035	423.7	427.1	423.0	418.6	415.4	394.3	383.3
20	212+50	20,950	425.2	428.8	424.4	420.0	416.6	394.8	384.0
21	222+60	21,960	426.7	430.6	425.9	421.3	417.8	397.2	391.7
22	232+75	22,975	428.0	432.1	427.2	422.5	419.1	397.8	394.0
23	242+75	23,975	430.8	435.0	429.9	425.1	421.7	403.2	397.7
24	251+05	24,805	432.0	436.0	431.2	426.6	423.4	405.1	400.0
Sutherlin Creek	--	24,900	--	--	--	--	--	--	--
25	264+35	26,135	433.6	437.4	432.9	428.7	425.7	405.7	399.0
26	276+30	27,330	435.3	438.9	434.5	430.3	427.3	406.6	401.5
27	286+75	28,375	436.3	439.9	435.6	431.5	428.5	407.7	401.2
28	298+65	29,565	438.3	442.2	437.6	432.9	429.9	408.1	400.0
29	307+15	30,415	438.3	442.2	437.6	433.7	430.5	408.7	403.7
30	322+00	31,900	439.9	444.3	439.2	435.3	432.3	411.6	407.0
31	333+80	33,080	442.4	444.8	441.6	437.3	434.2	413.9	406.4
32	345+30	34,230	445.7	449.2	444.9	440.3	437.1	417.1	409.0
33	353+95	35,095	447.4	450.7	446.7	442.3	439.1	419.5	413.5
Southern Pacific Railroad bridge	--	35,250	--	--	--	--	--	--	--
Highway I-5 bridge	--	35,680	--	--	--	--	--	--	--
Highway 99 bridge	--	35,780	--	--	--	--	--	--	--
34	365+20	36,220	448.3	451.6	447.6	443.5	440.4	421.5	416.5
Winchester Dam	--	36,460	--	--	--	--	--	--	--

1/ Supersedes table 8 in Part 1, 1972, because of new frequency analysis.
2/ Identification number on photogrammetric map.
3/ Thalweg, low point in channel.

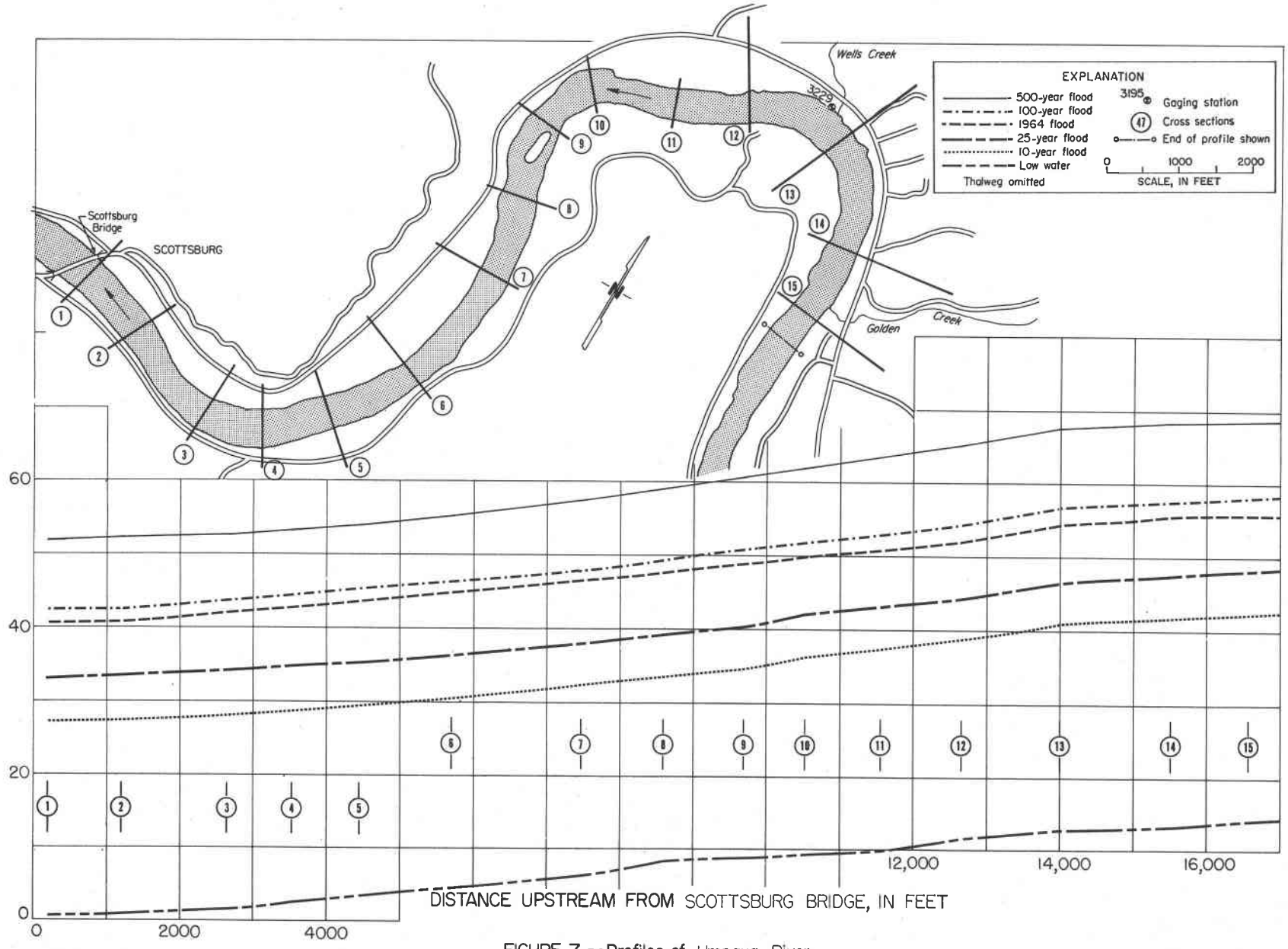


FIGURE 7.--Profiles of Umpqua River

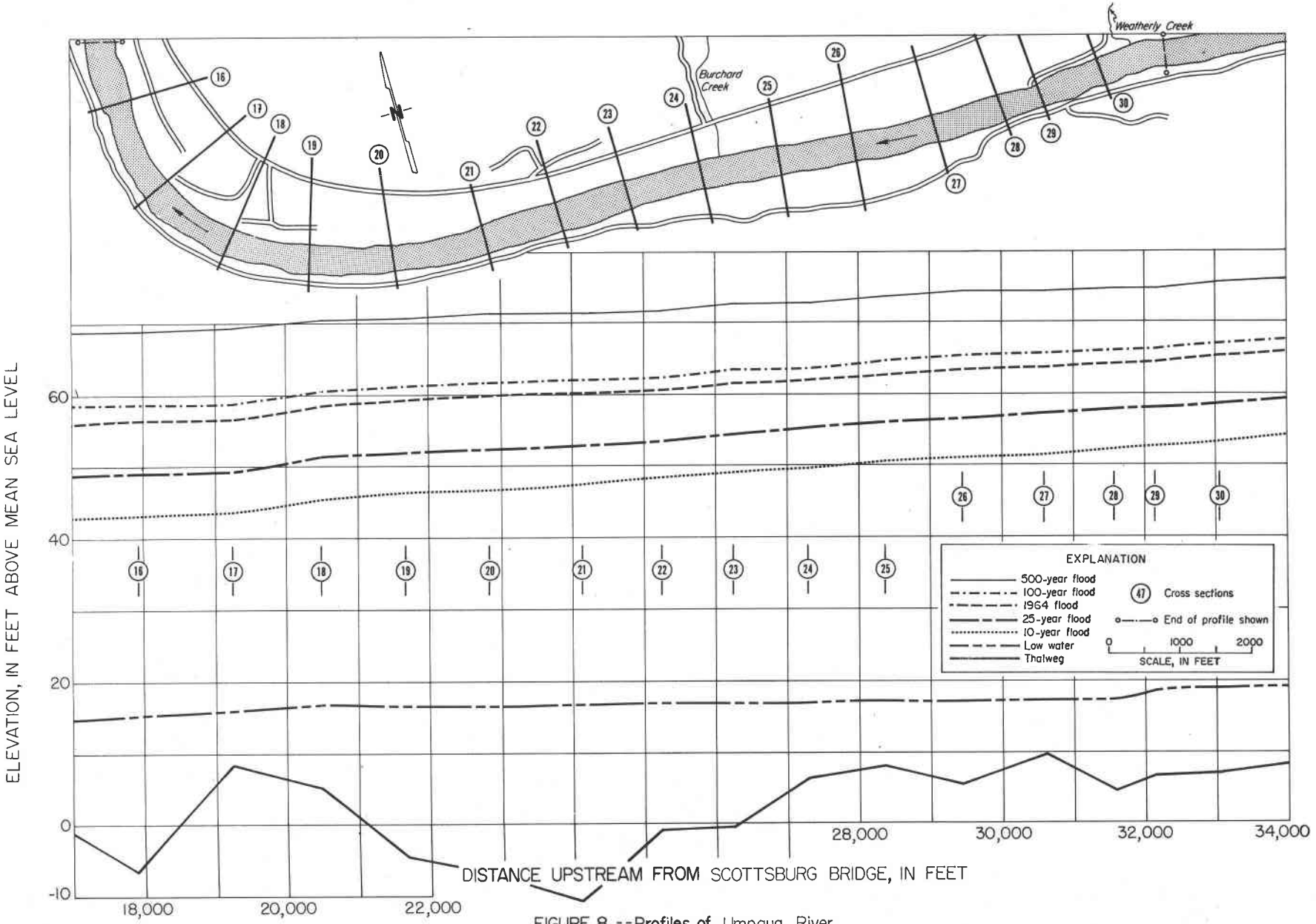


FIGURE 8.--Profiles of Umpqua River

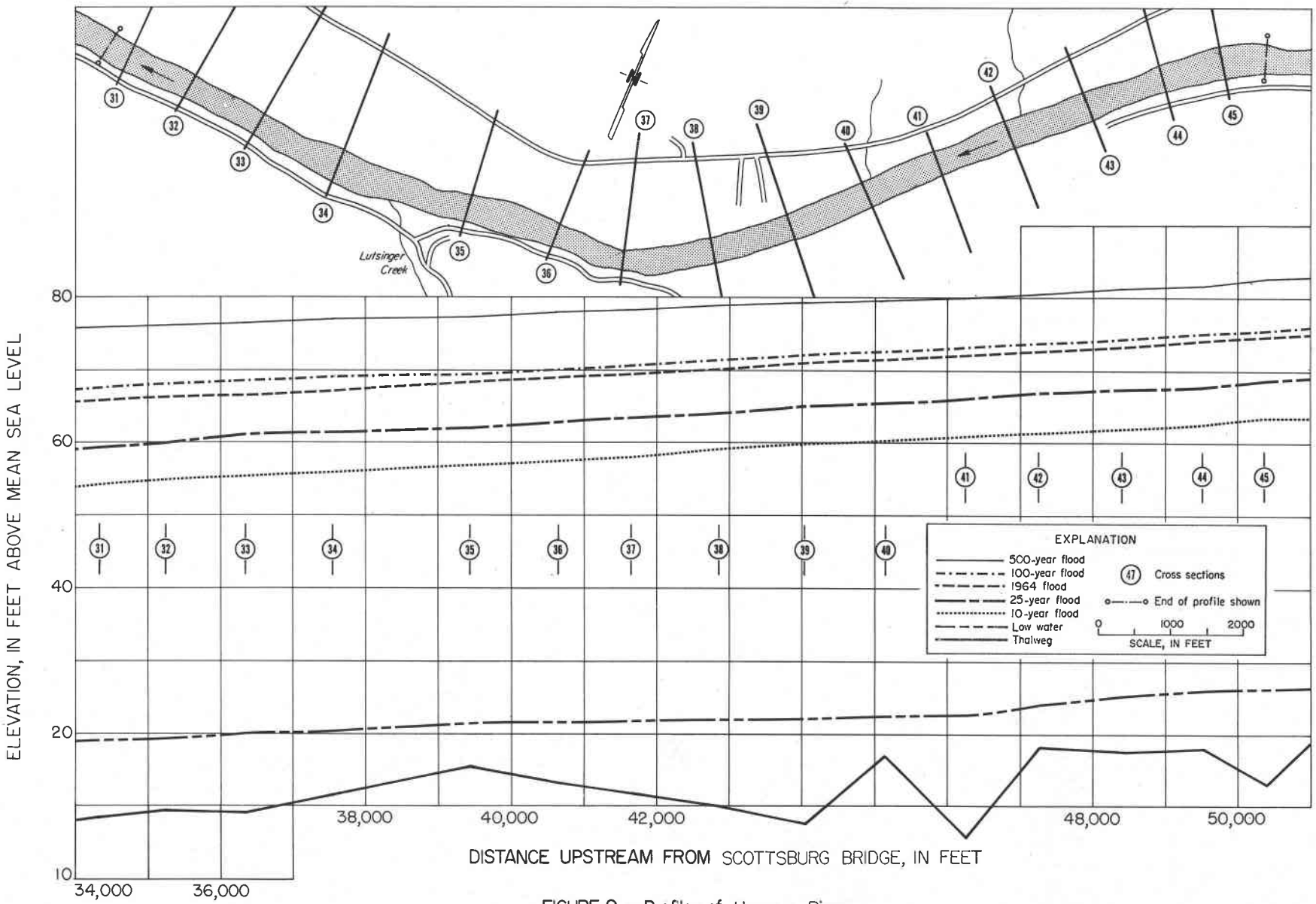
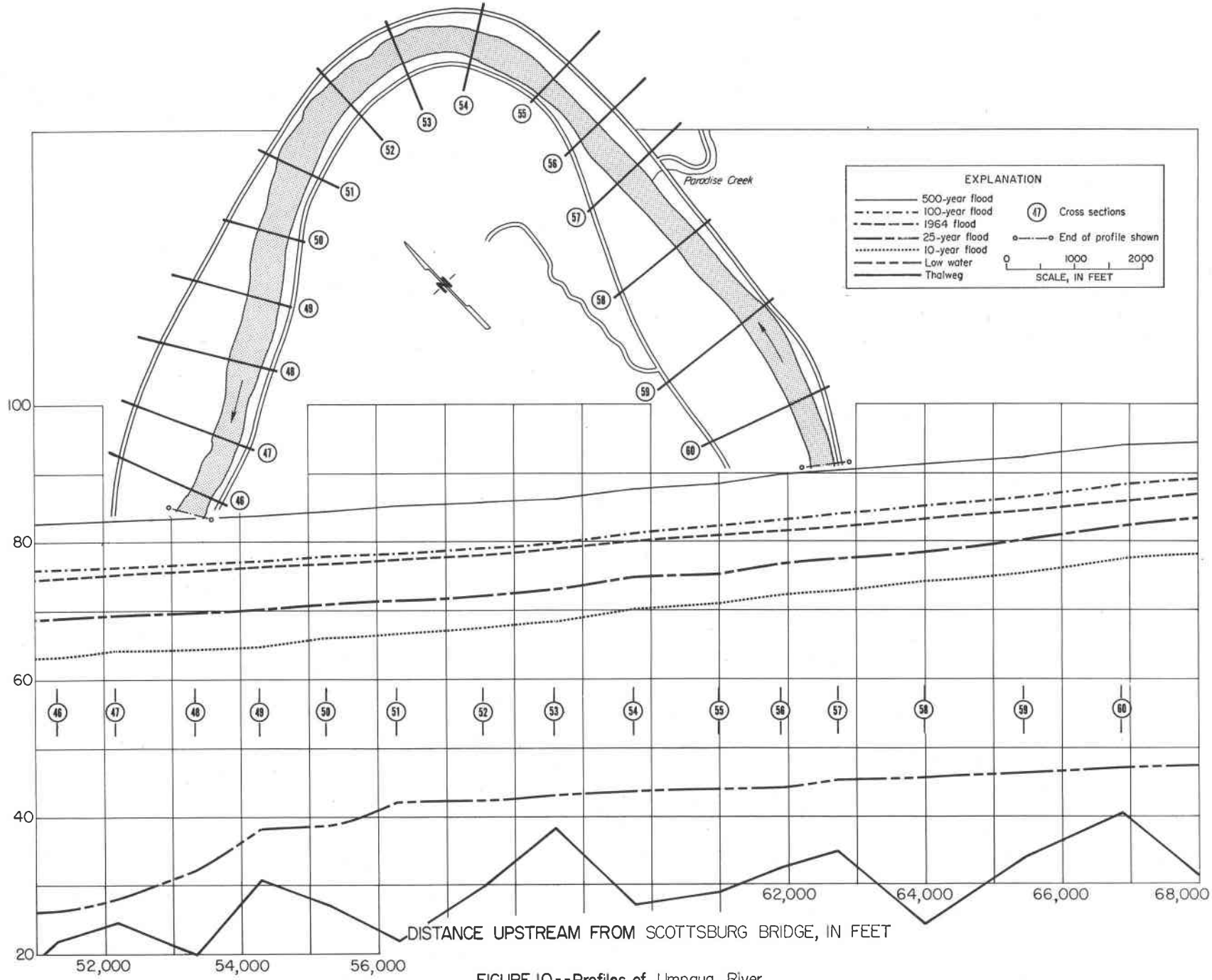


FIGURE 9.--Profiles of Umpqua River



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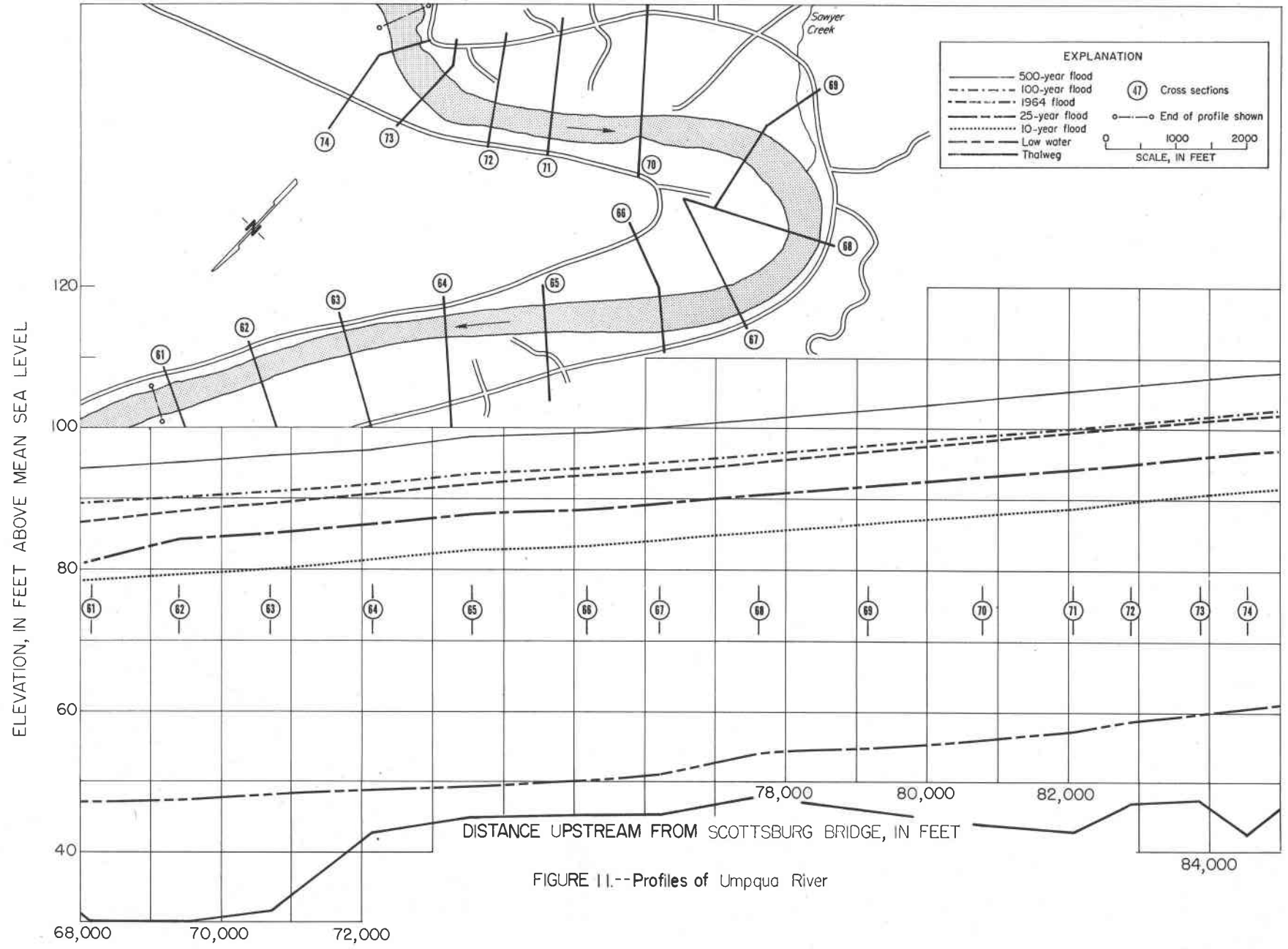
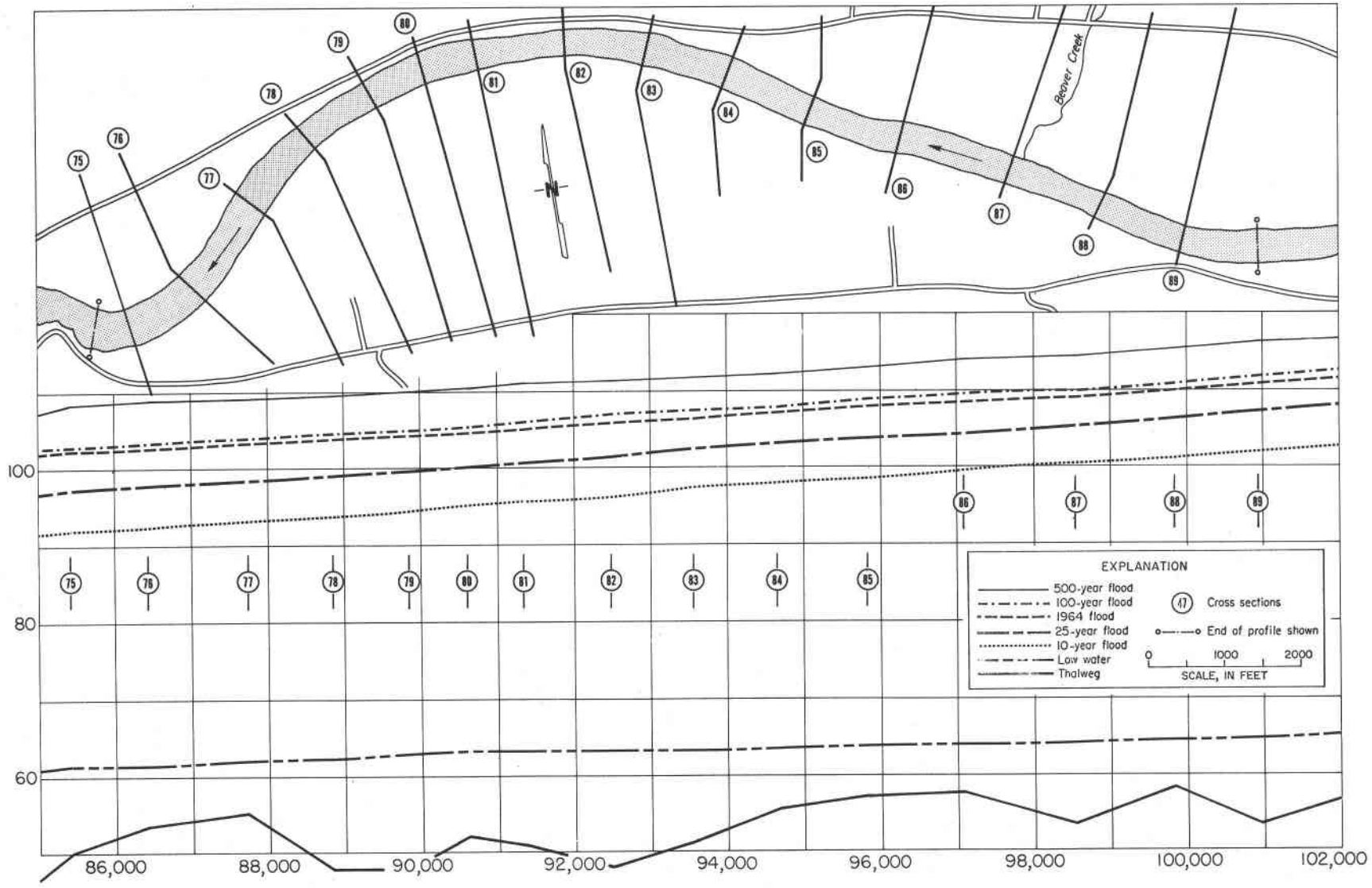


FIGURE 11.--Profiles of Umpqua River



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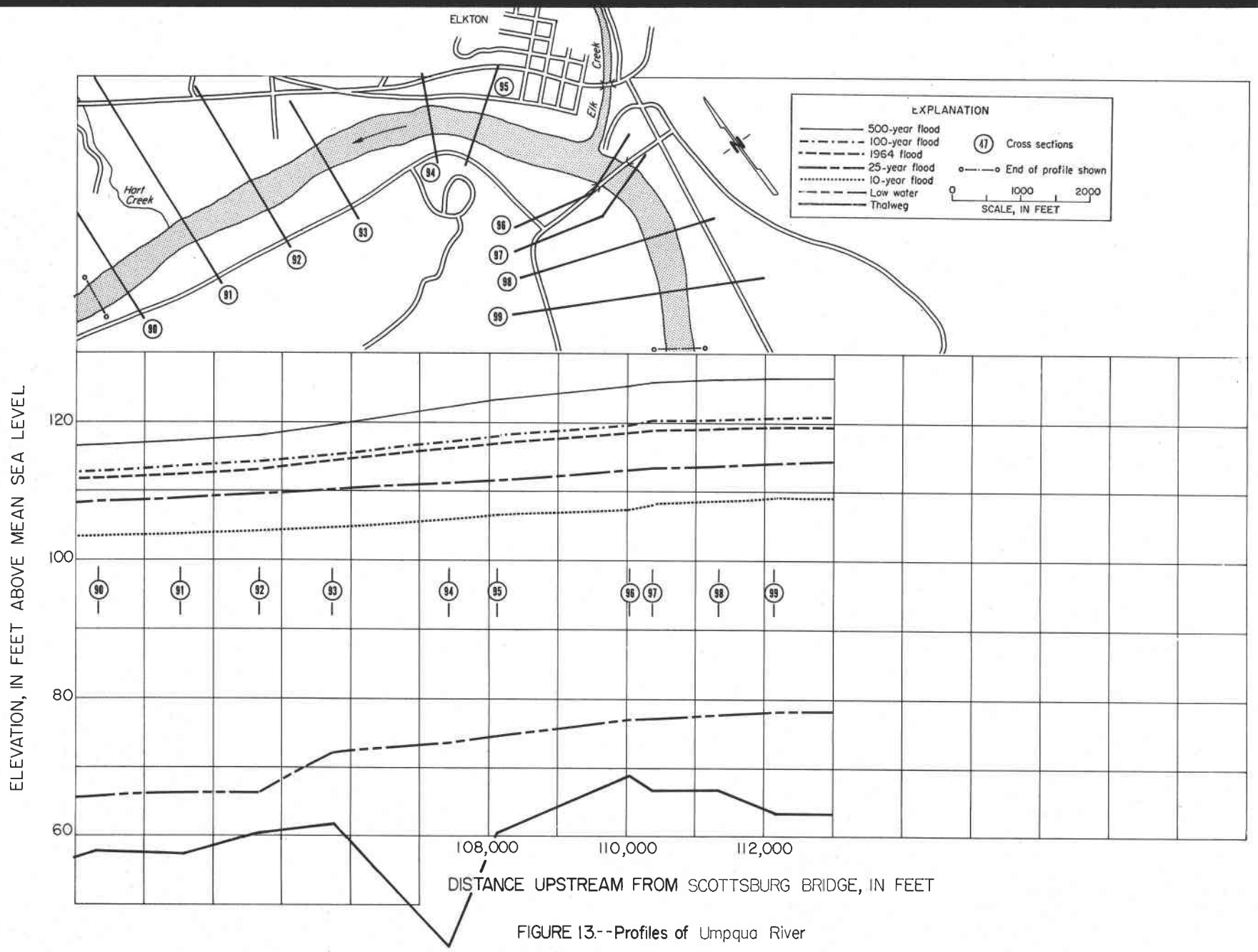


FIGURE 13.--Profiles of Umpqua River

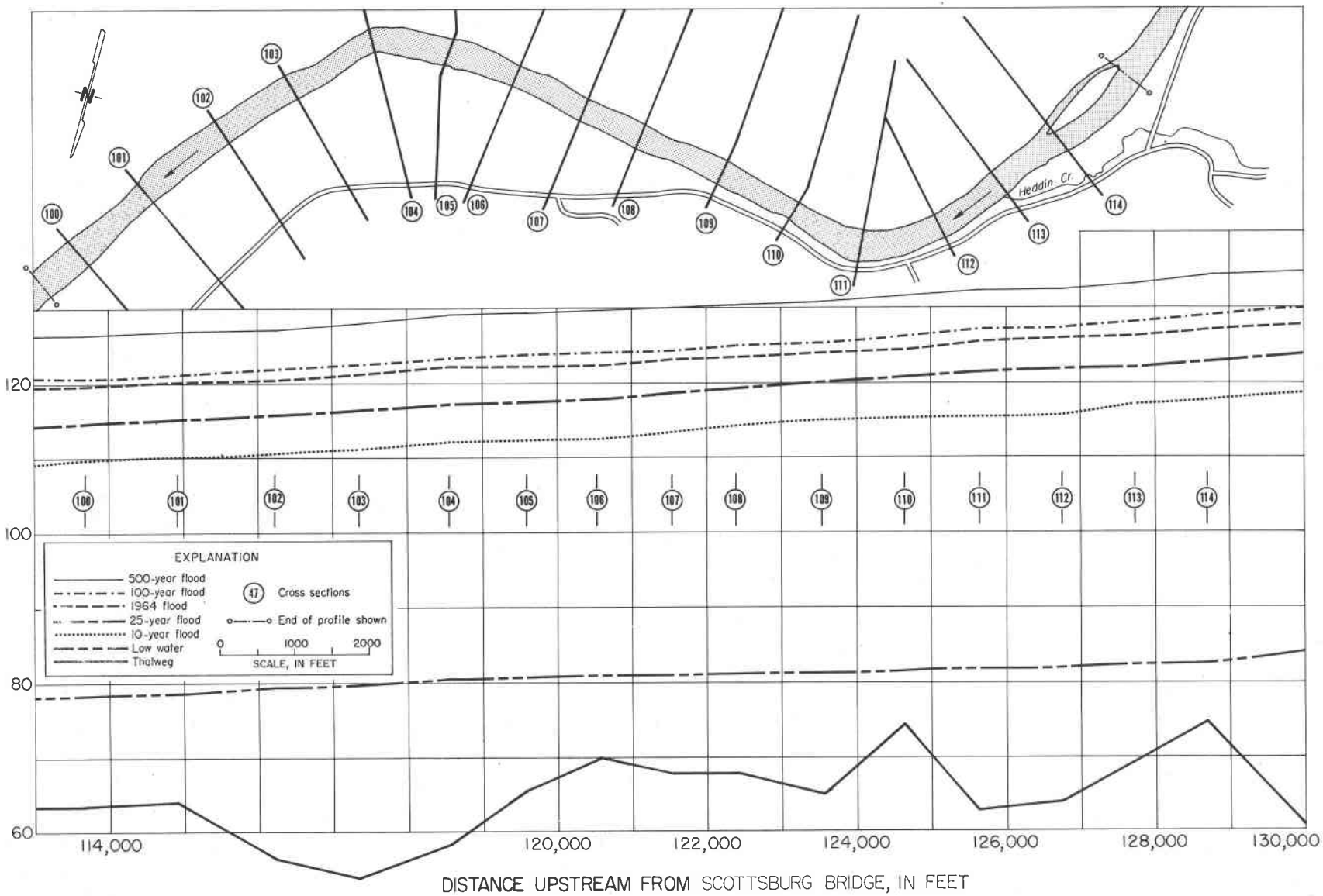


FIGURE 14.--Profiles of Umpqua River

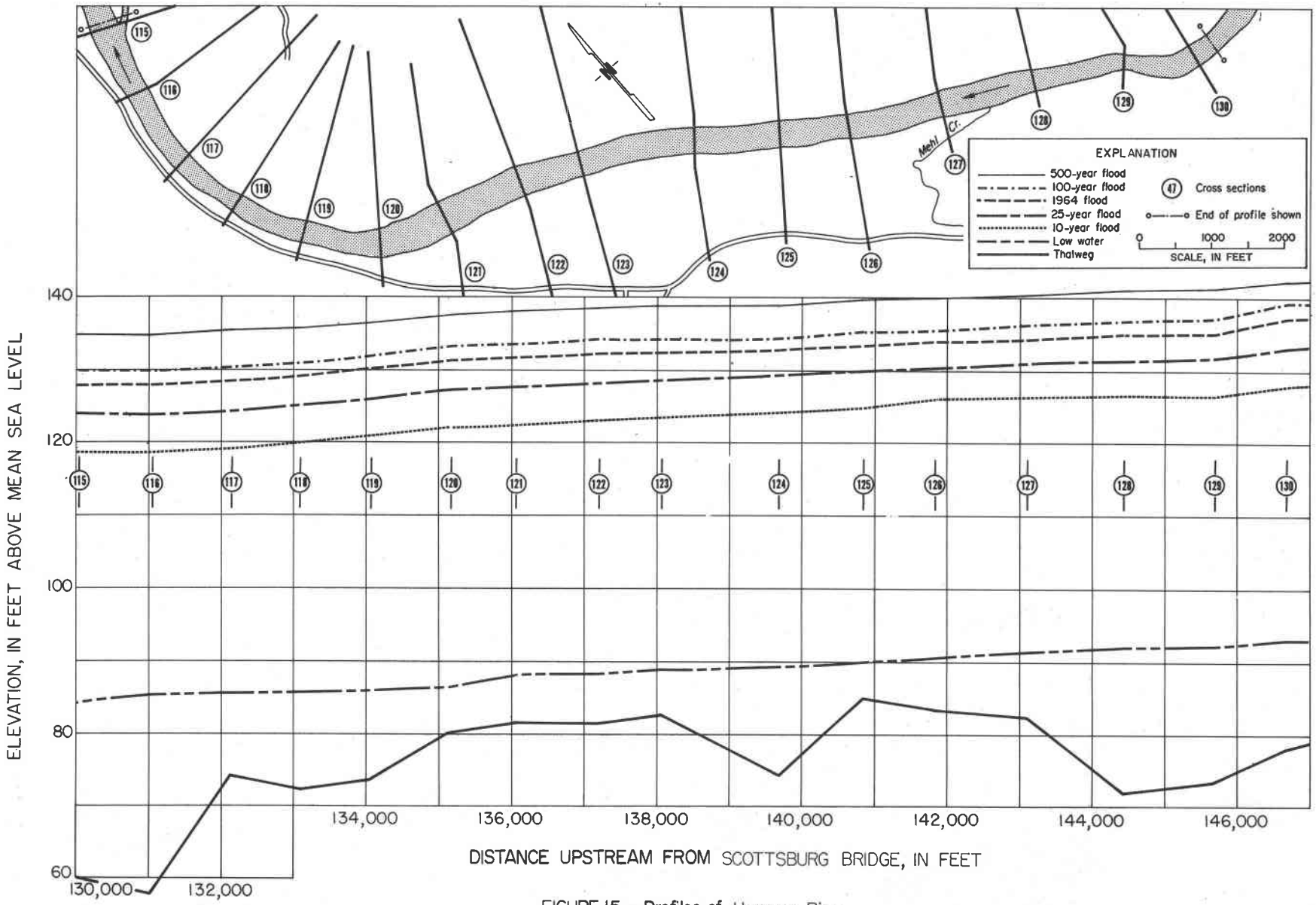
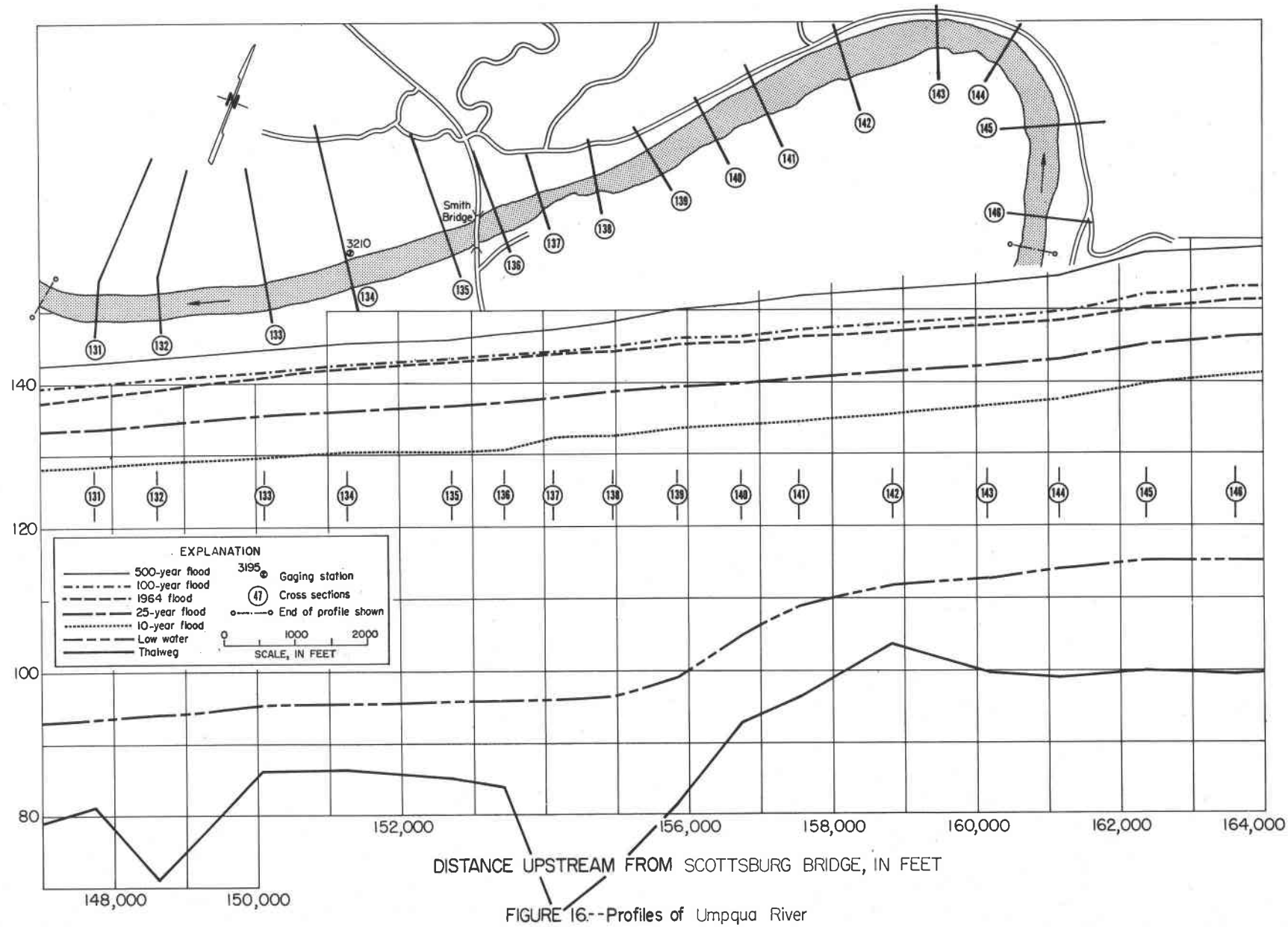


FIGURE 15.--Profiles of Umpqua River



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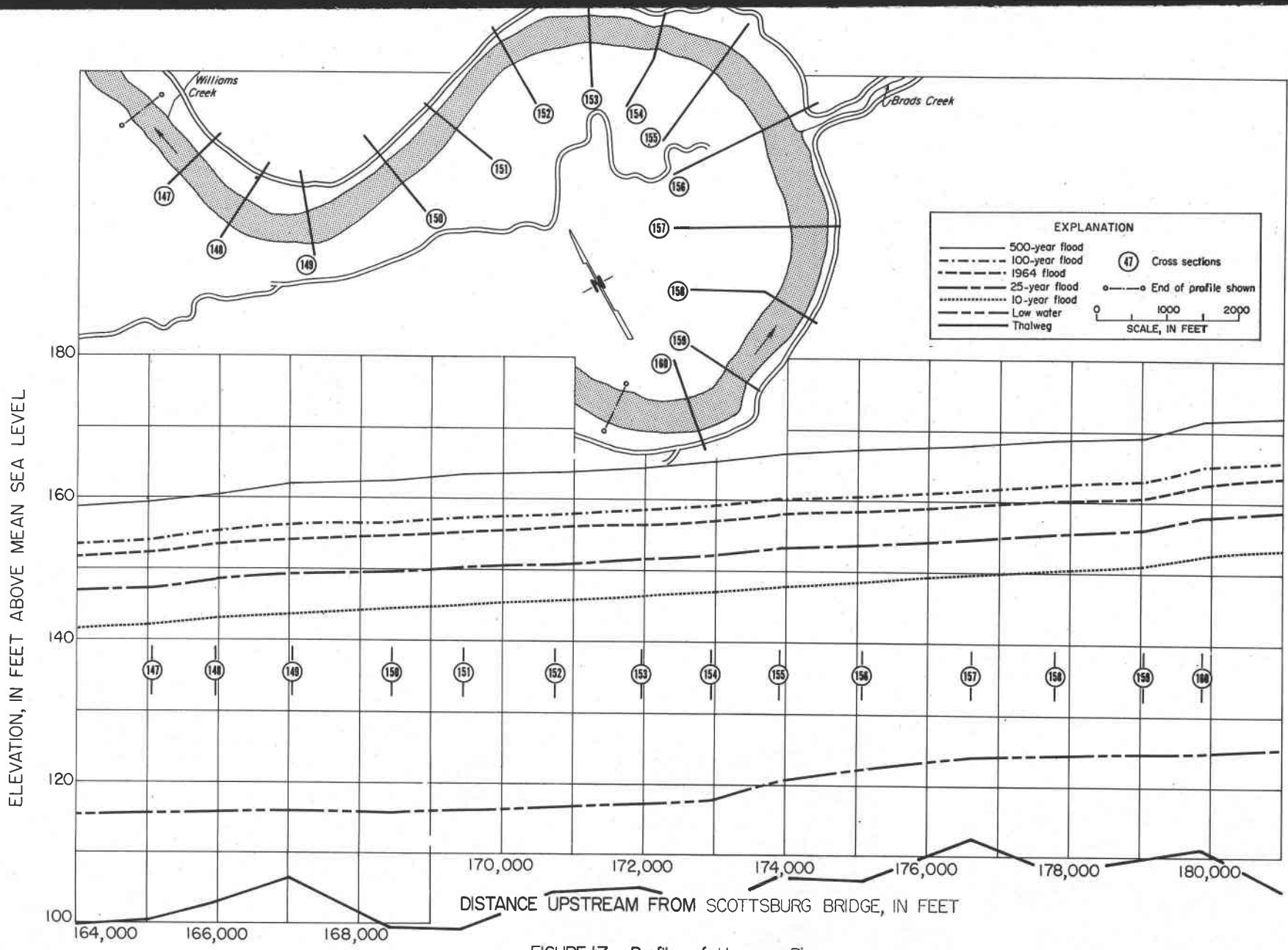


FIGURE 17.--Profiles of Umpqua River

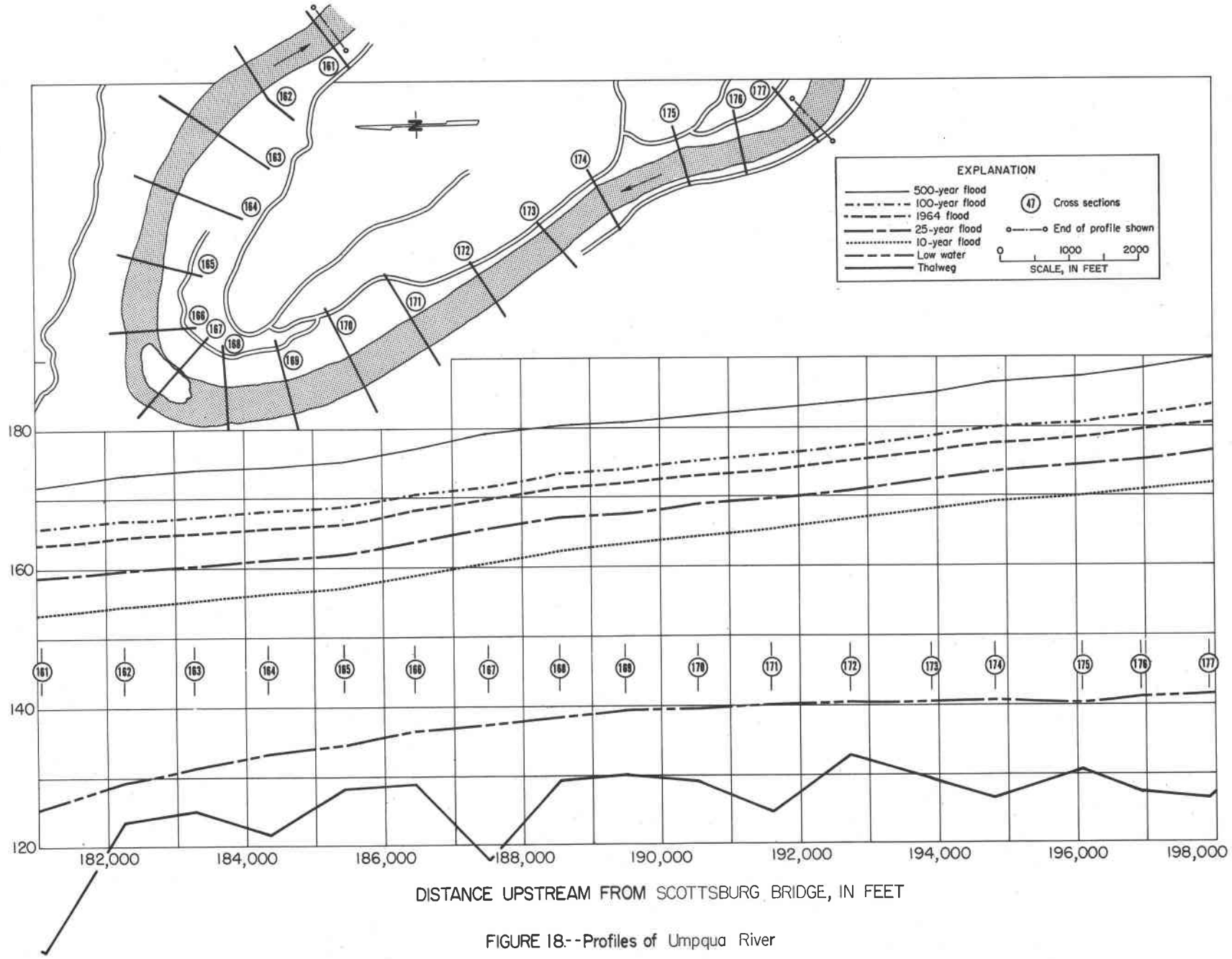


FIGURE 18.--Profiles of Umpqua River

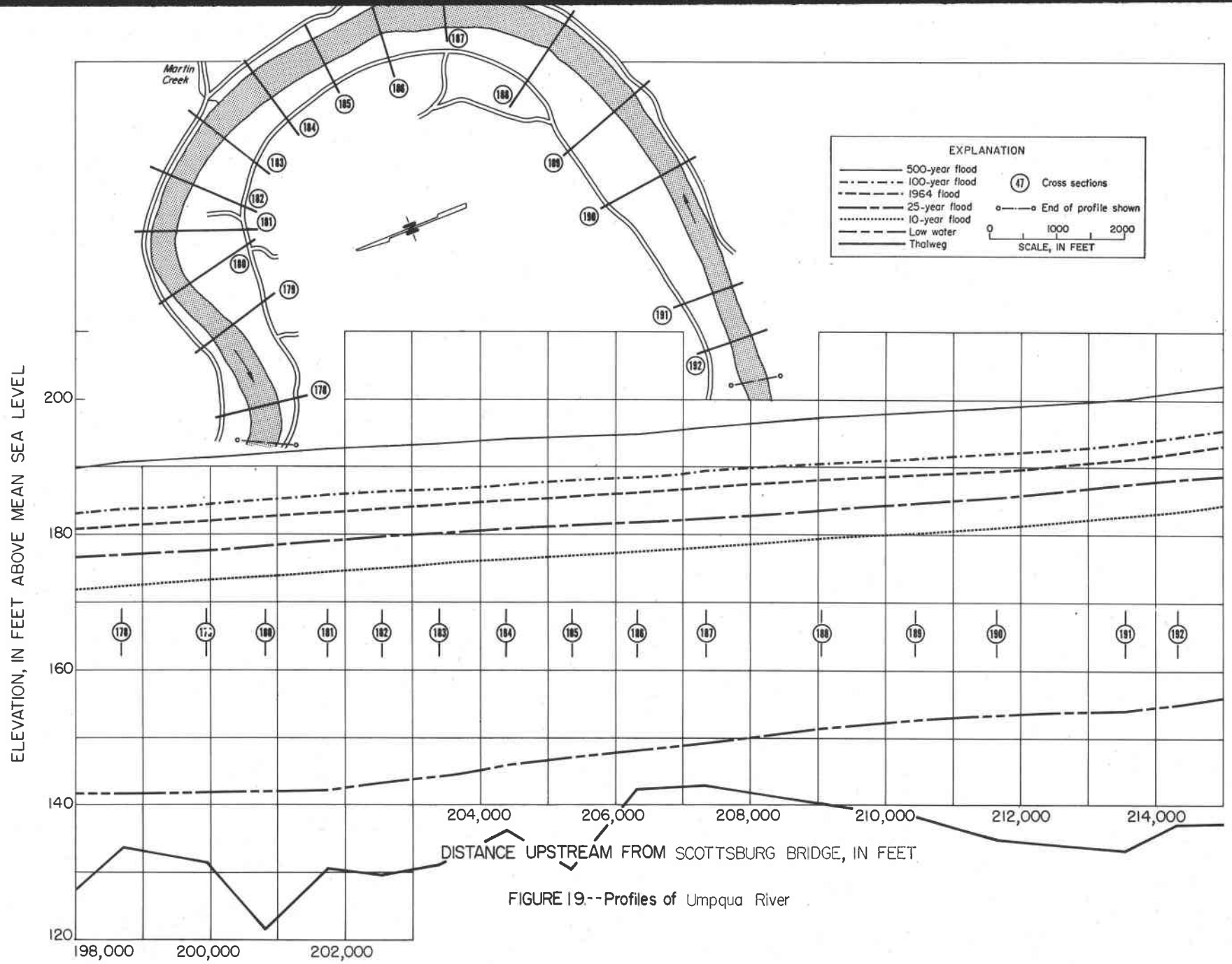


FIGURE 19.--Profiles of Umpqua River

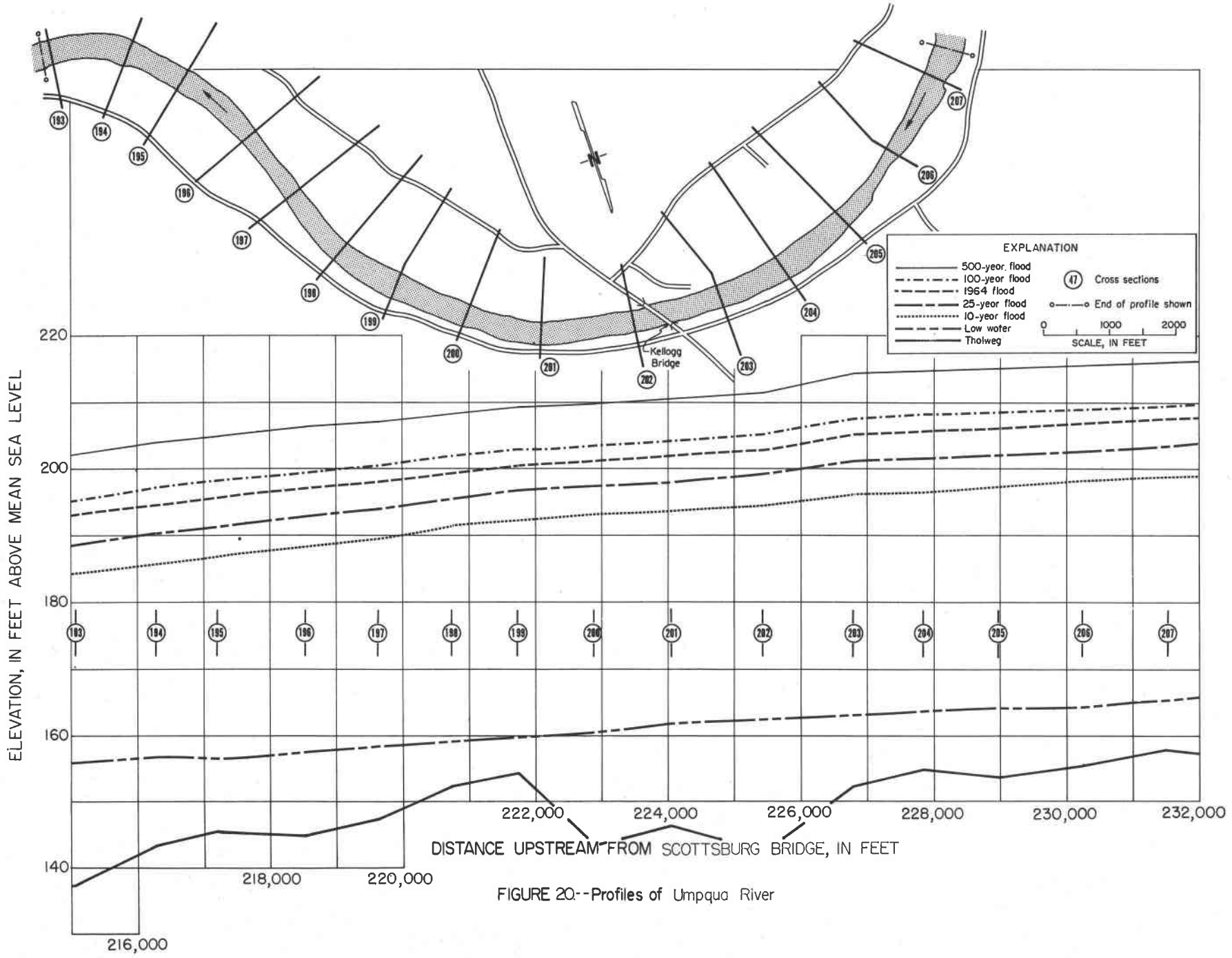


FIGURE 20.--Profiles of Umpqua River

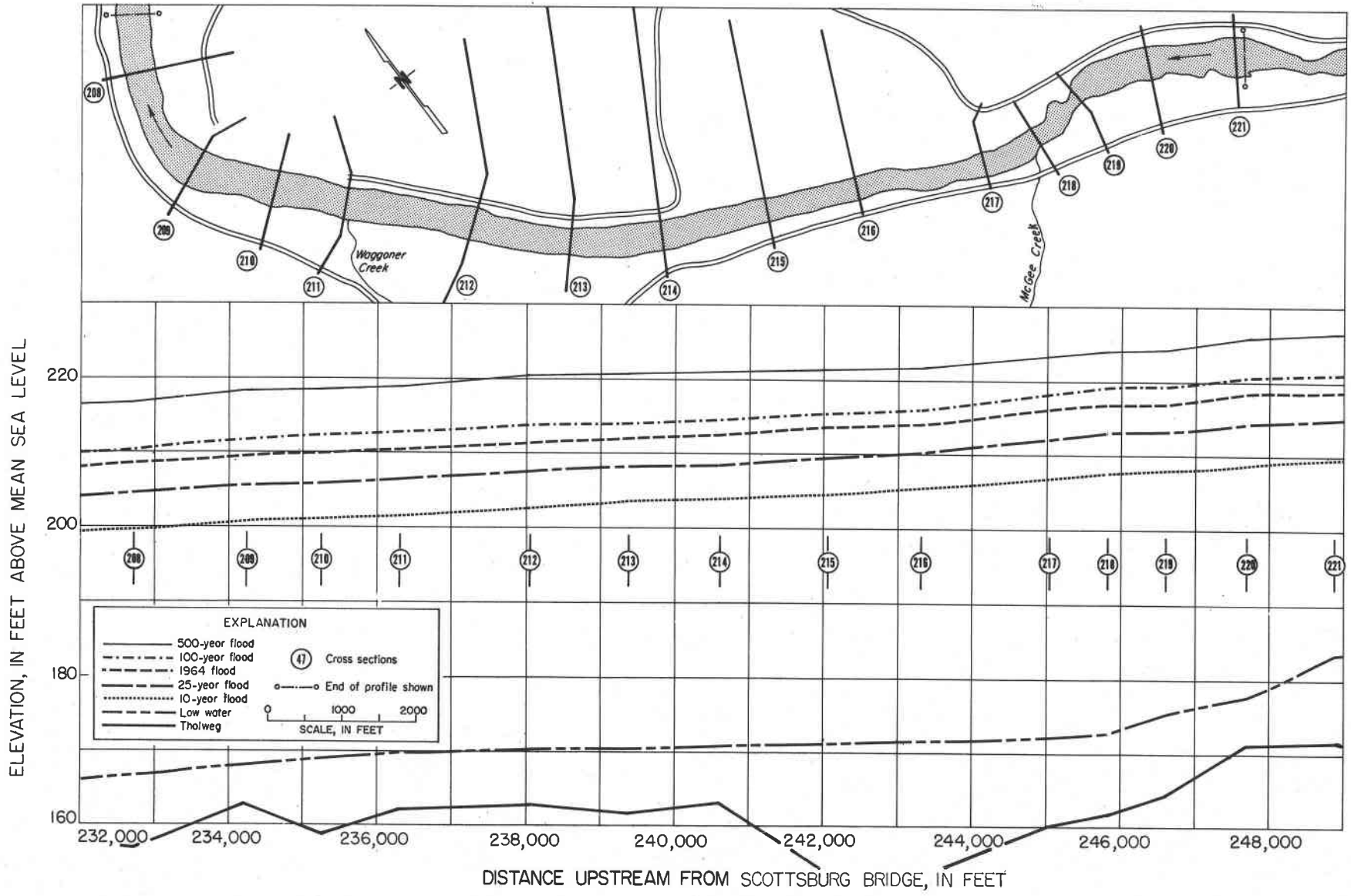


FIGURE 21.--Profiles of Umpqua River

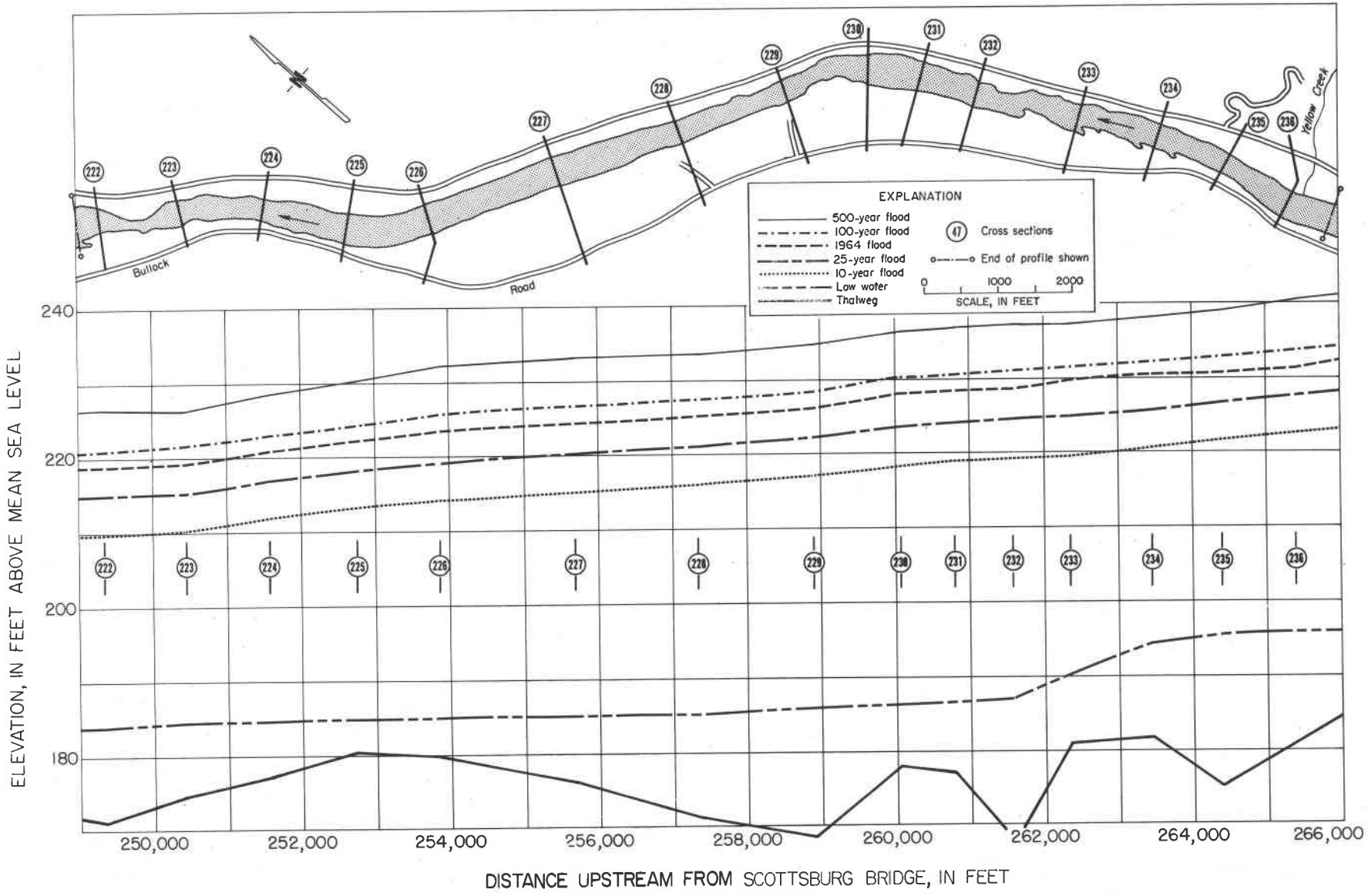


FIGURE 22.--Profiles of Umpqua River

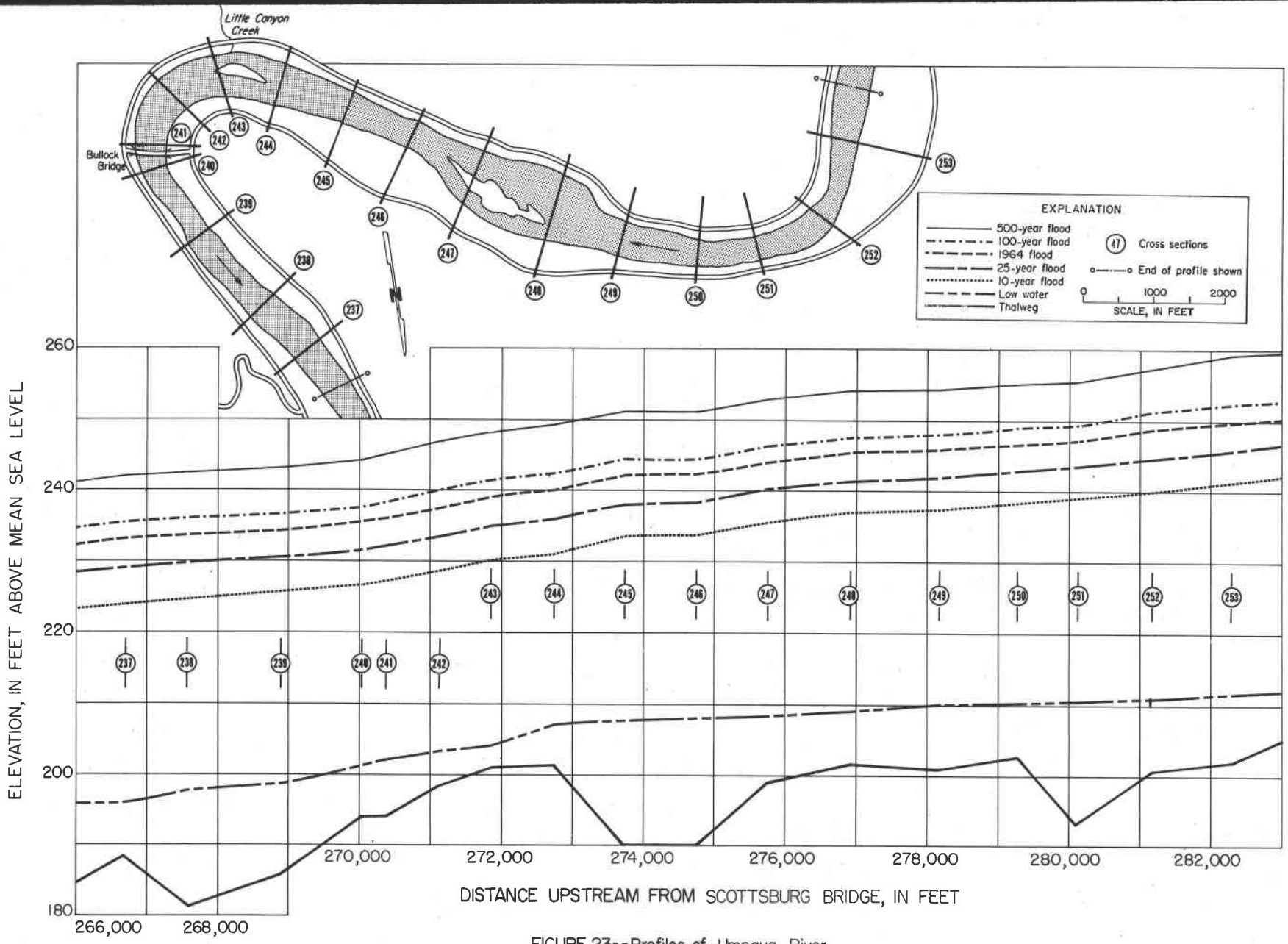


FIGURE 23.--Profiles of Umpqua River

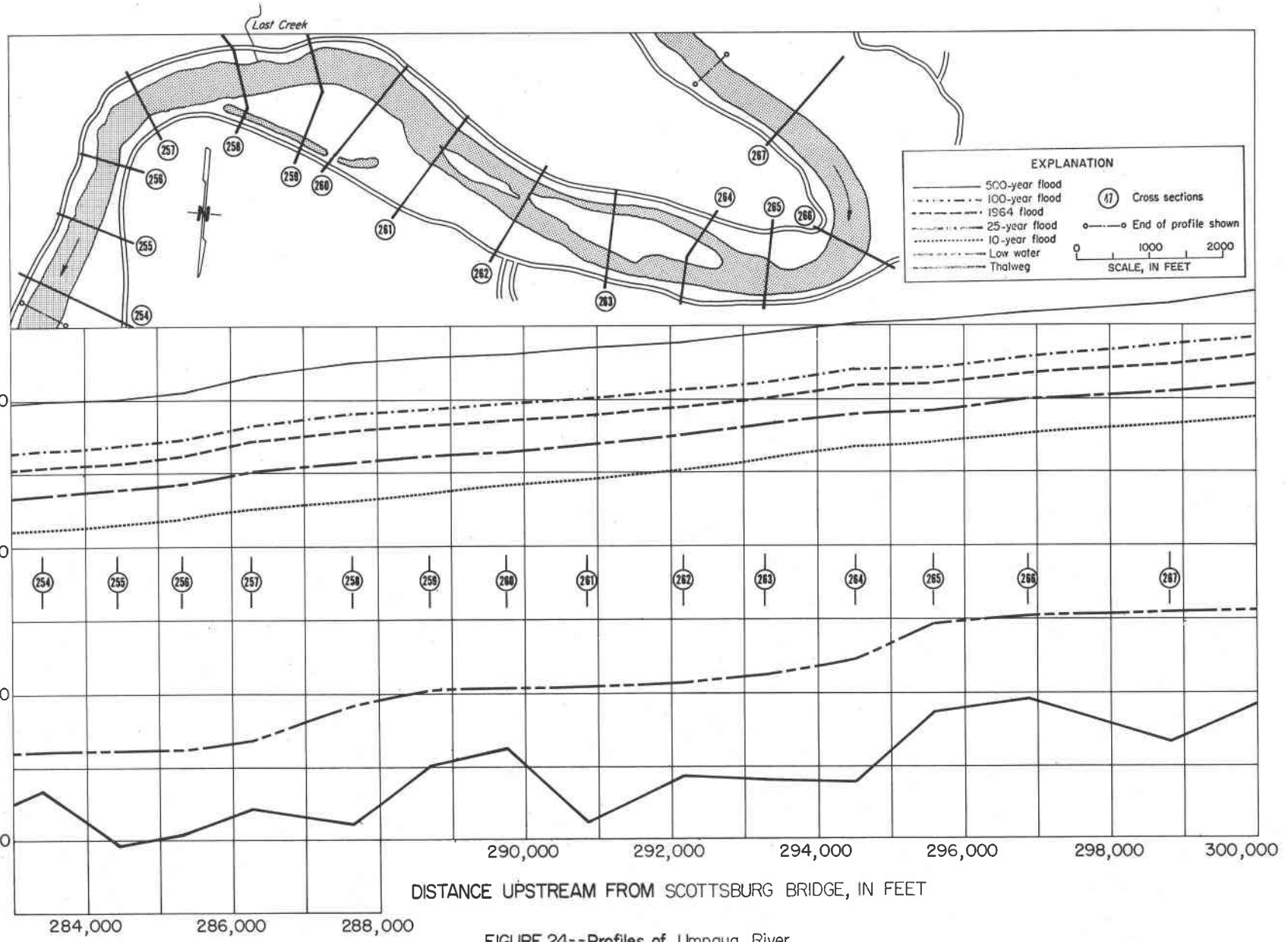


FIGURE 24.--Profiles of Umpqua River

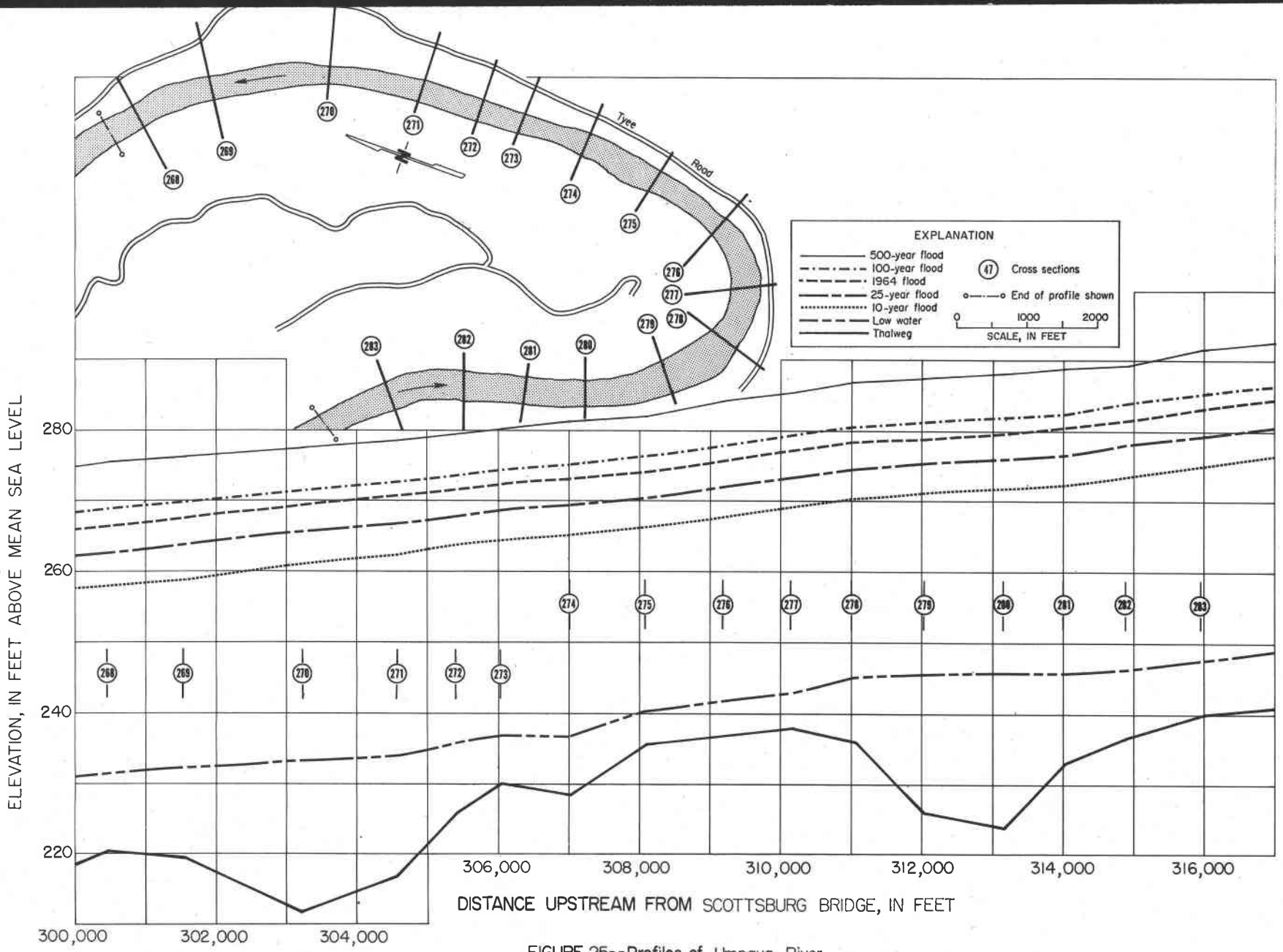


FIGURE 25--Profiles of Umpqua River

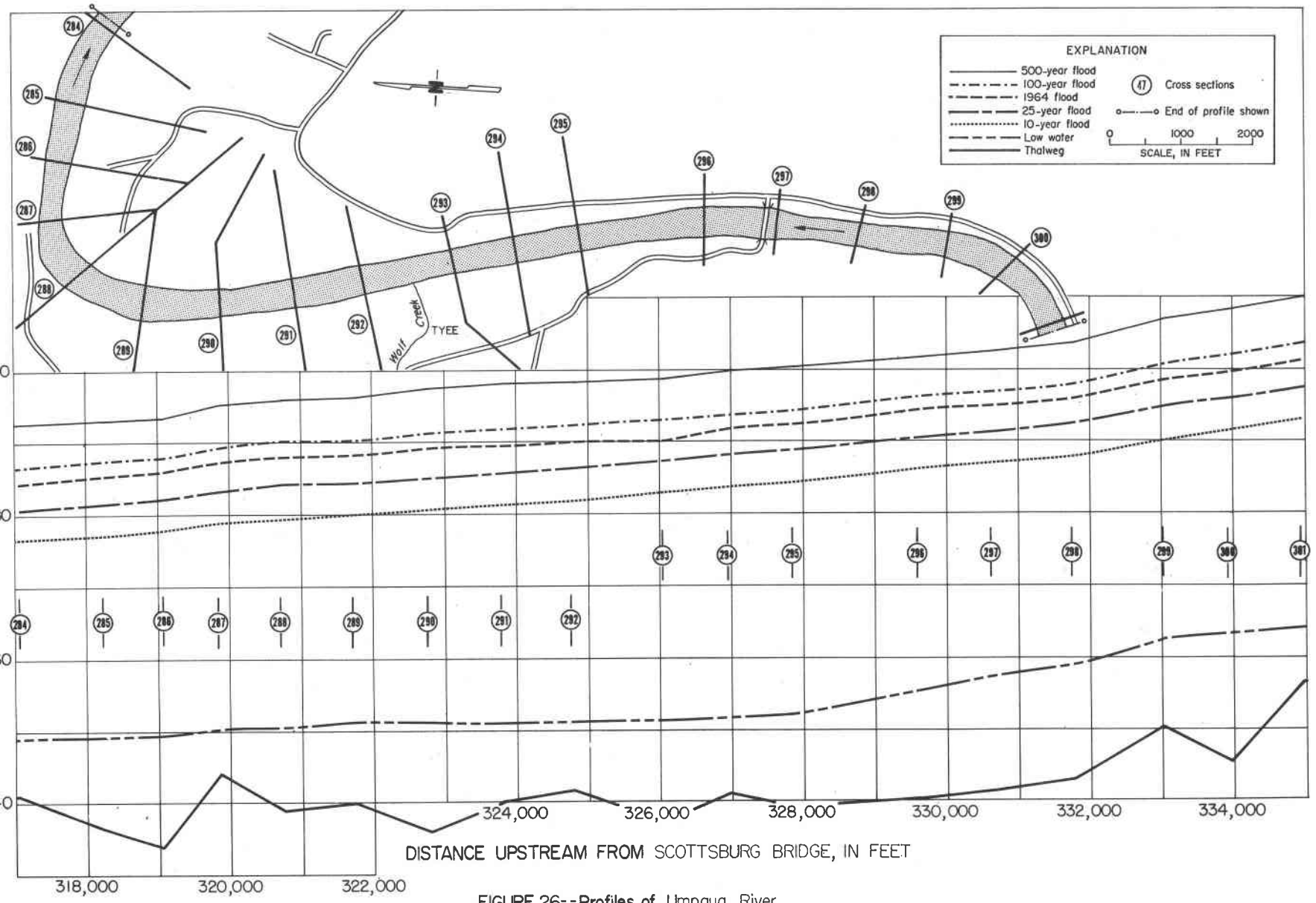


FIGURE 26--Profiles of Umpqua River

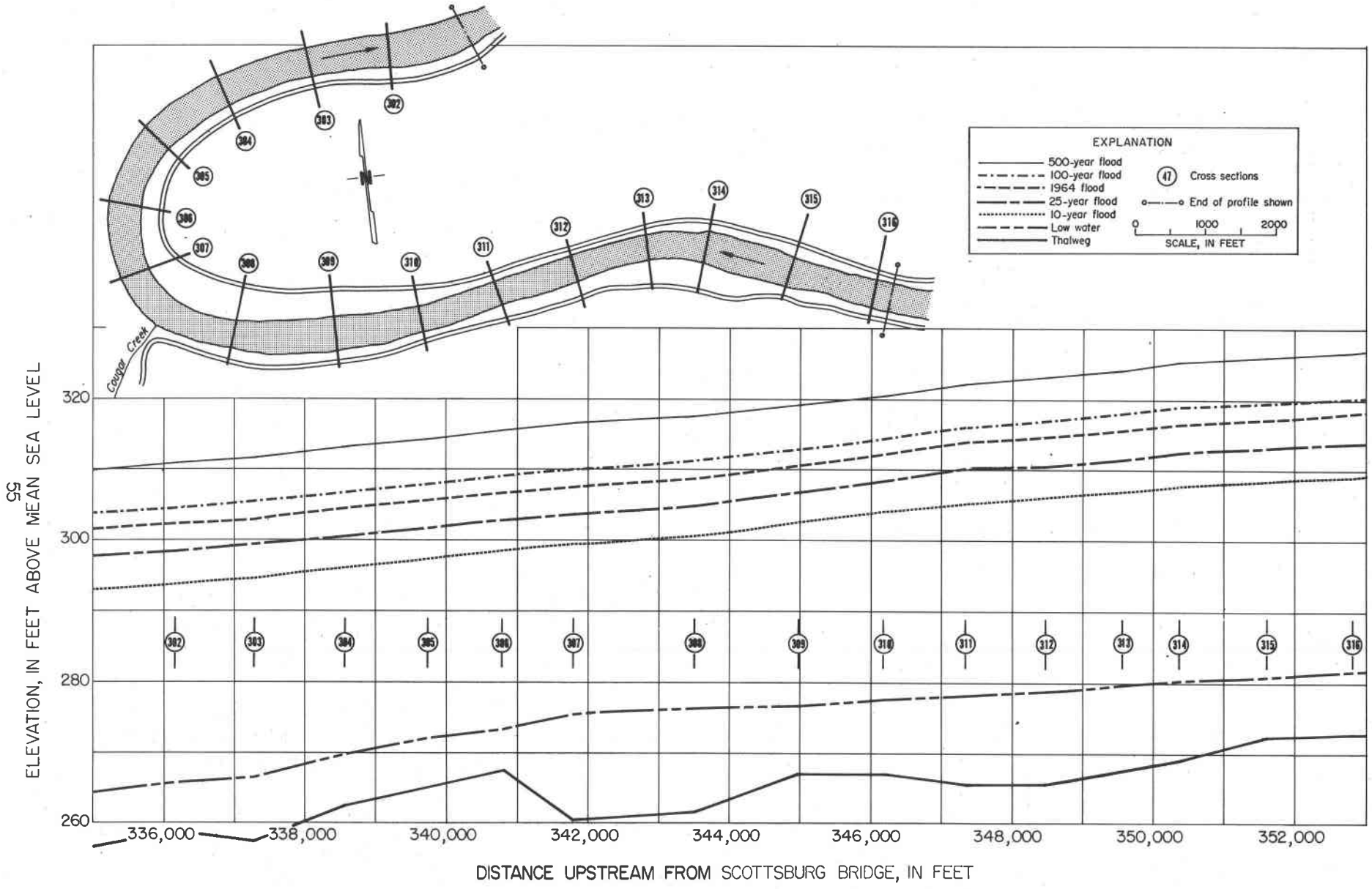


FIGURE 27.--Profiles of Umpqua River

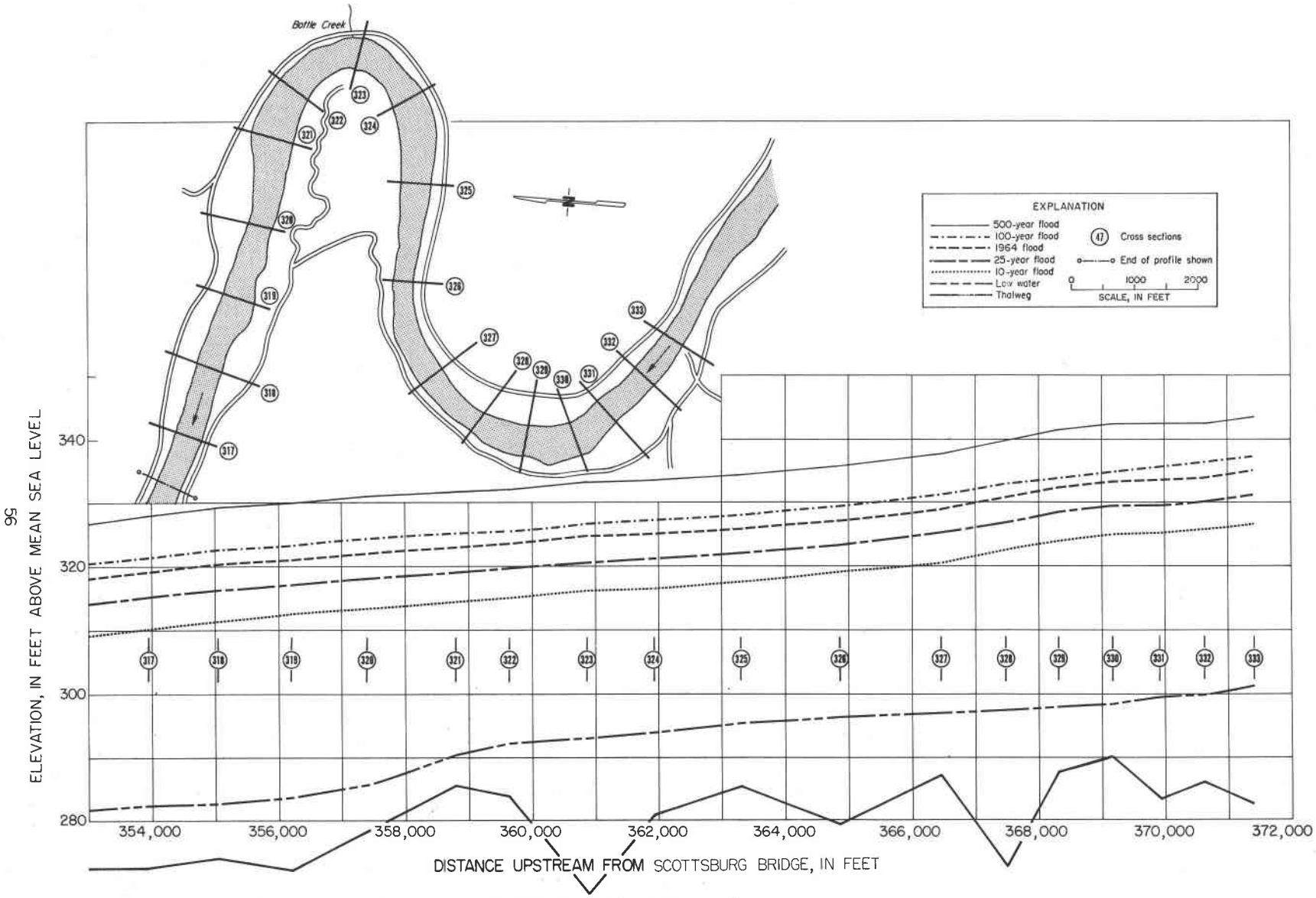


FIGURE 28--Profiles of Umpqua River

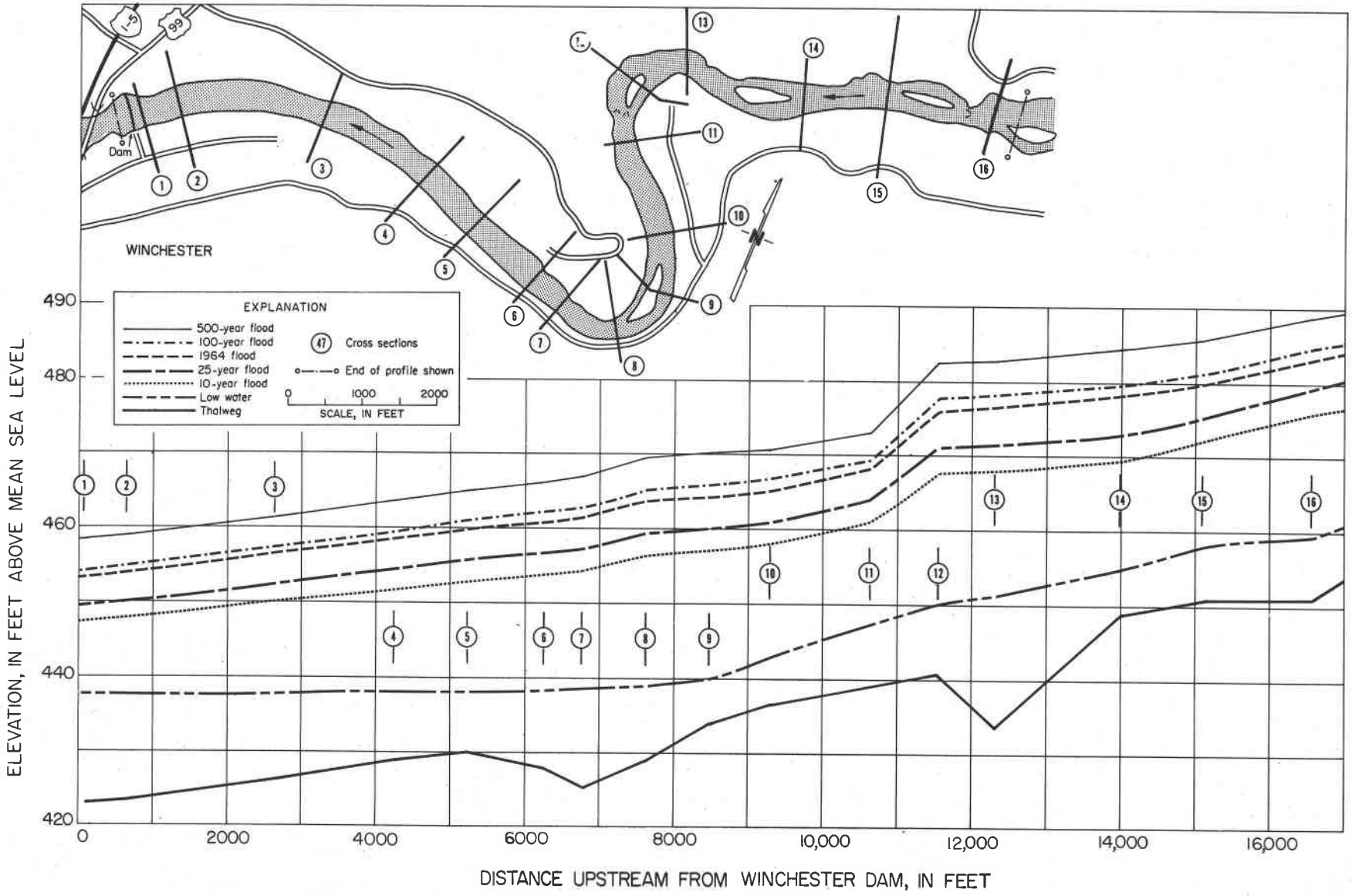


FIGURE 29.--Profiles of North Umpqua River

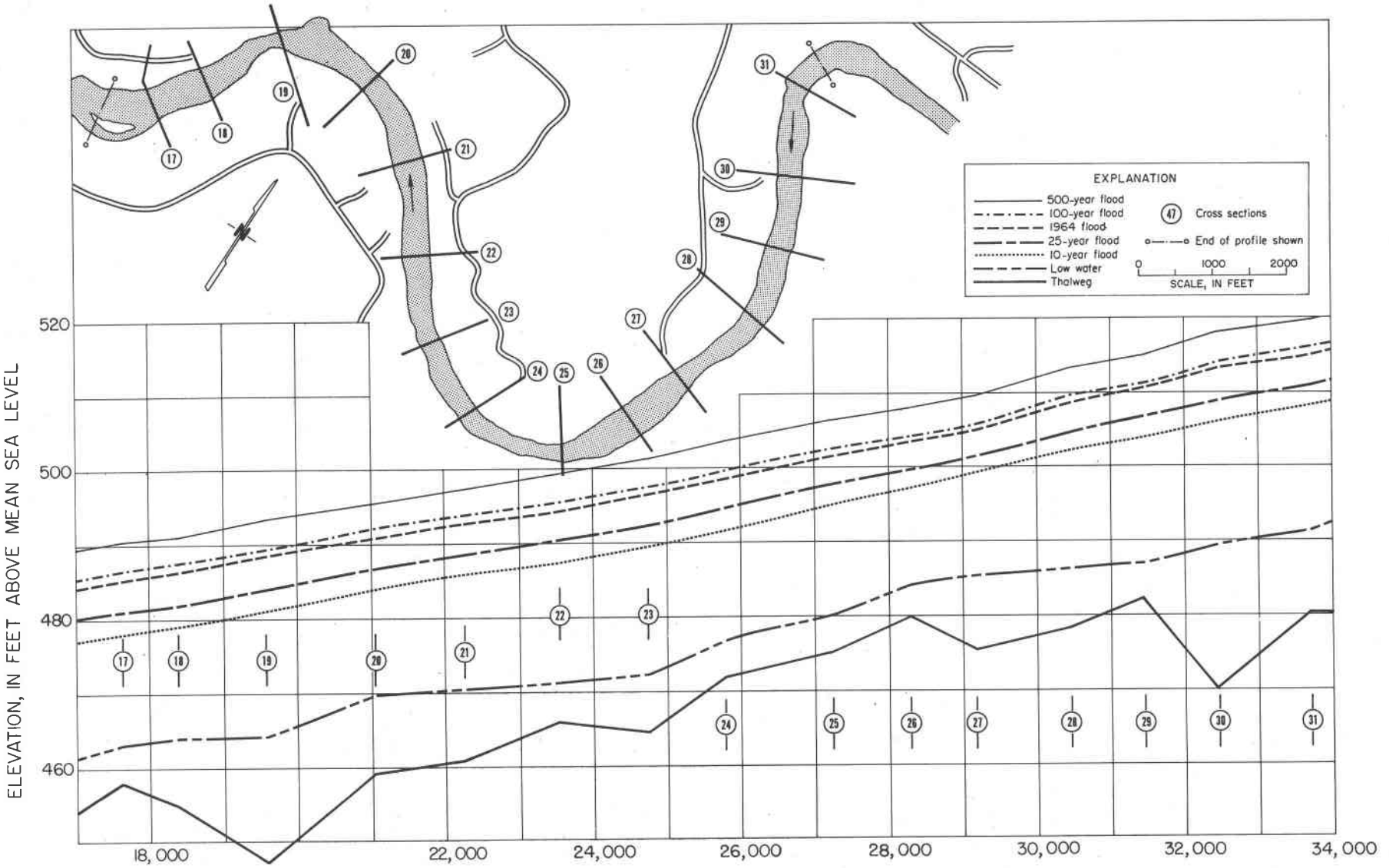


FIGURE 30.--Profiles of North Umpqua River

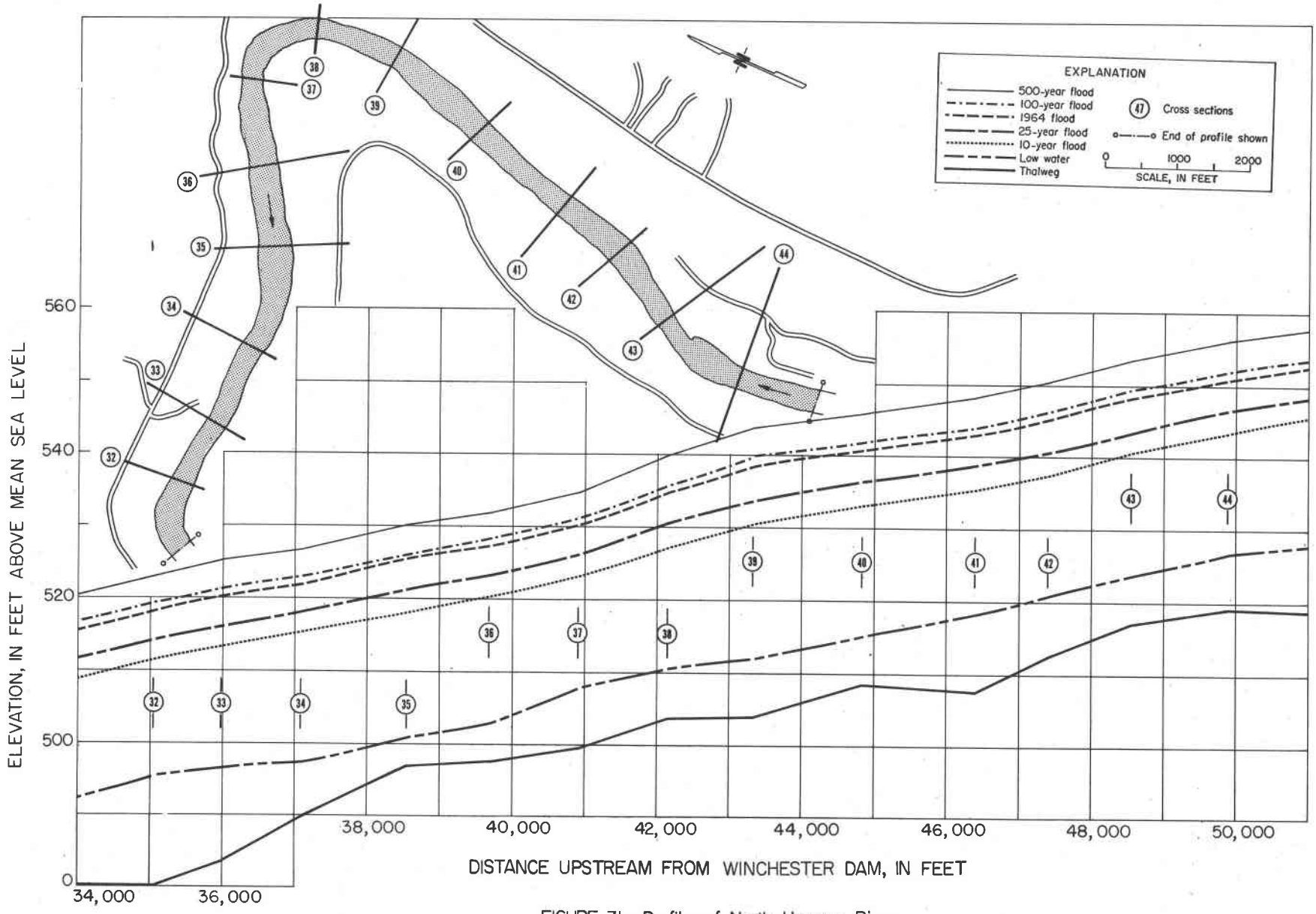


FIGURE 31.--Profiles of North Umpqua River

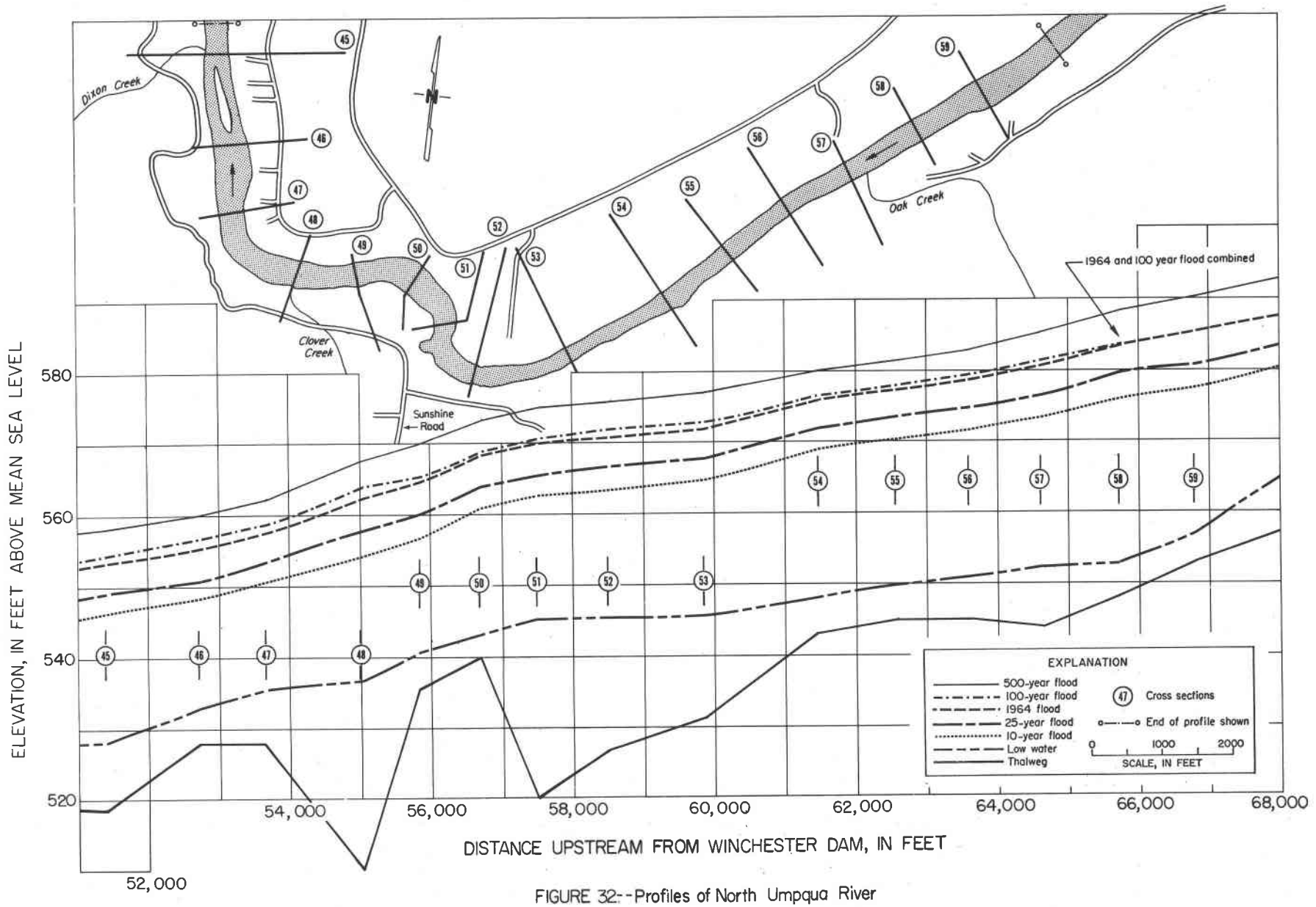
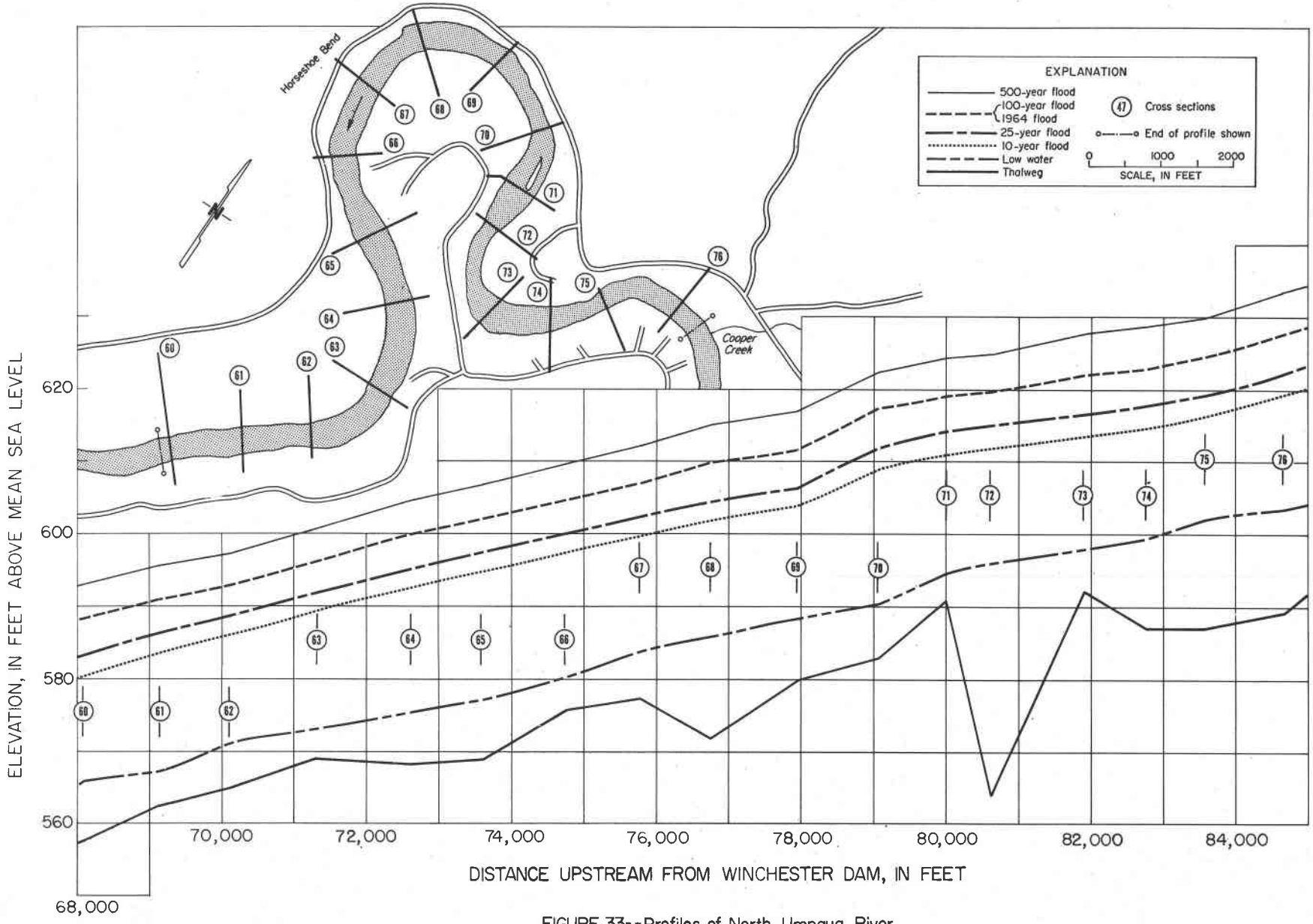


FIGURE 32.--Profiles of North Umpqua River



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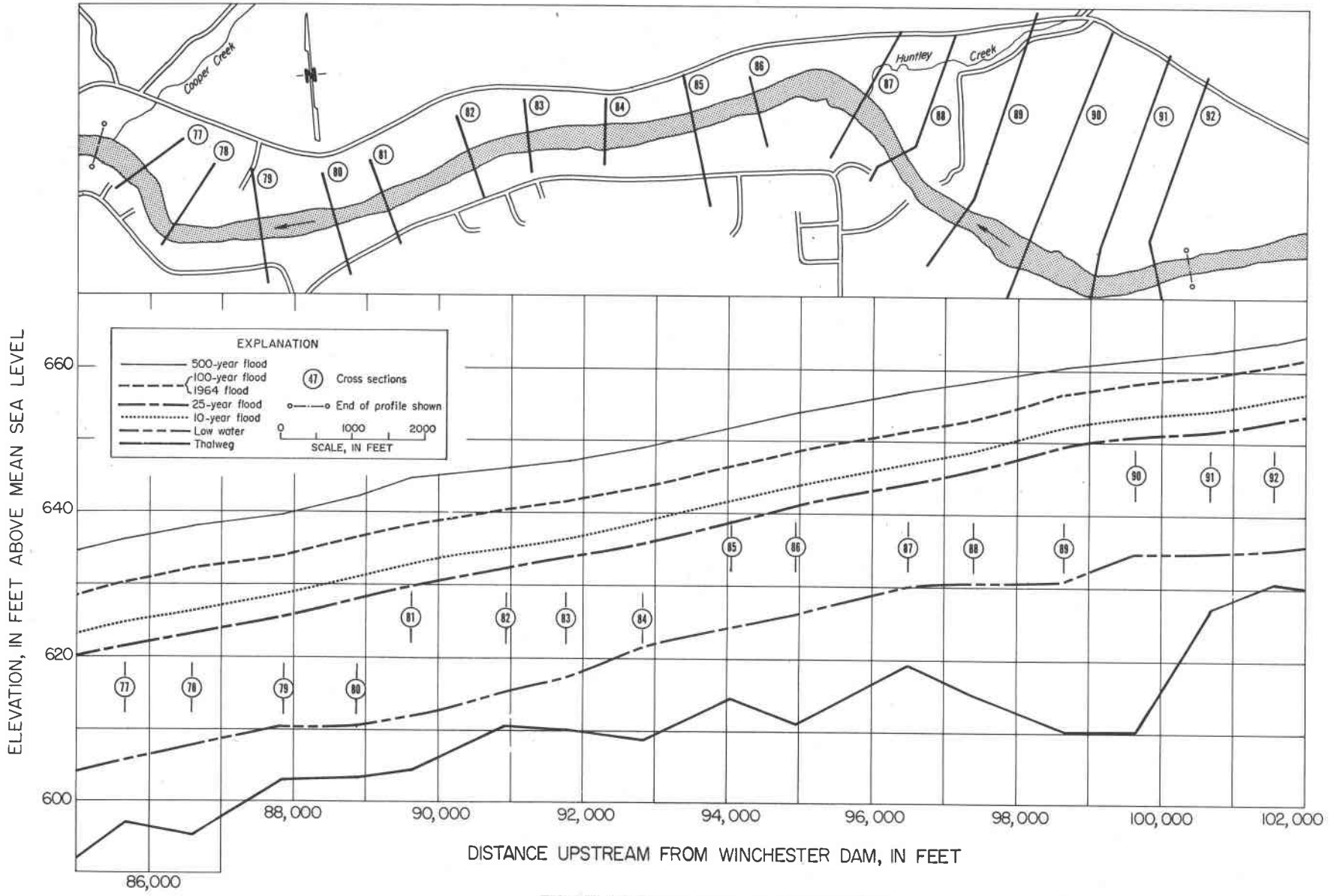
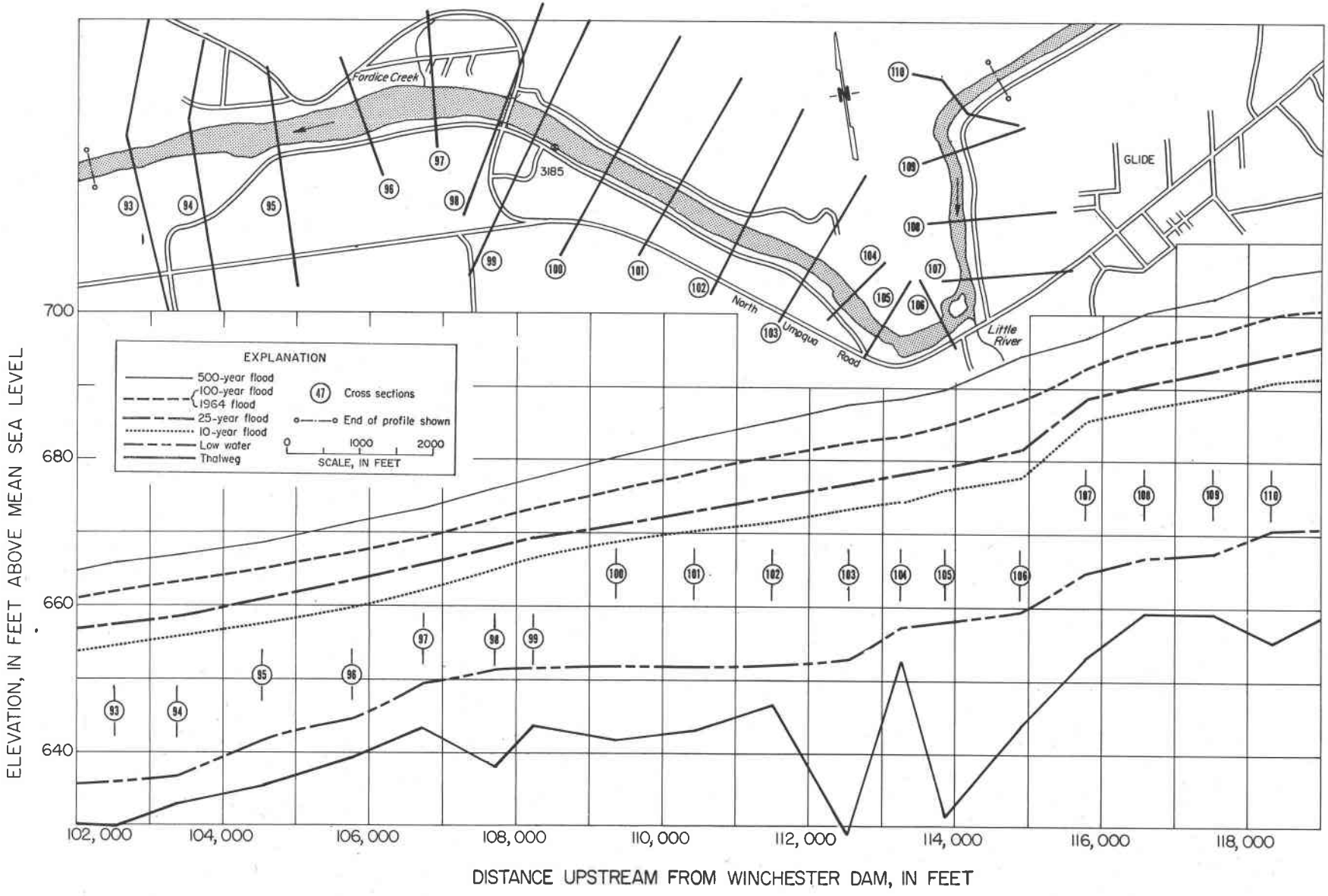


FIGURE 34--Profiles of North Umpqua River



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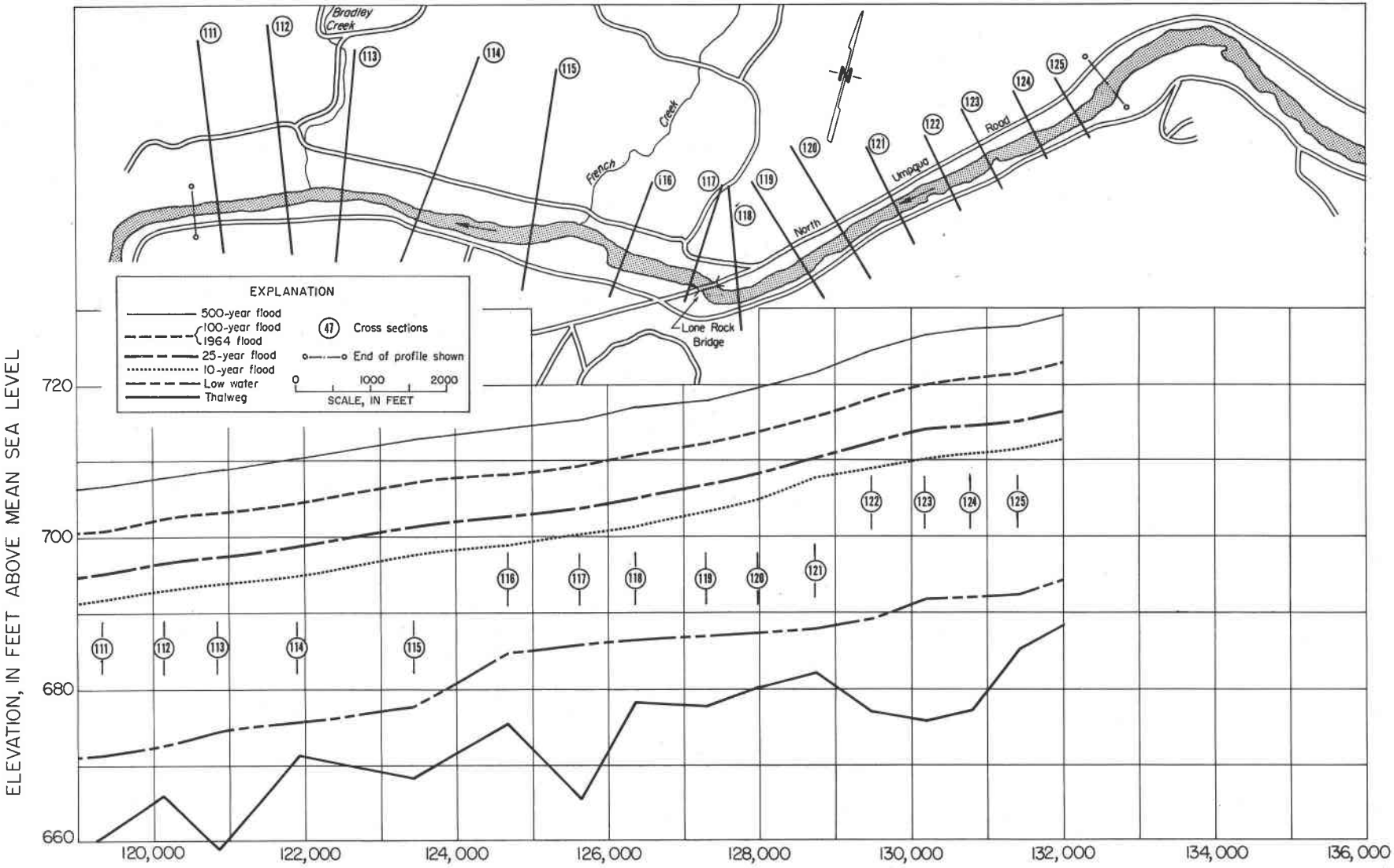

FIGURE 36--Profiles of North Umpqua River

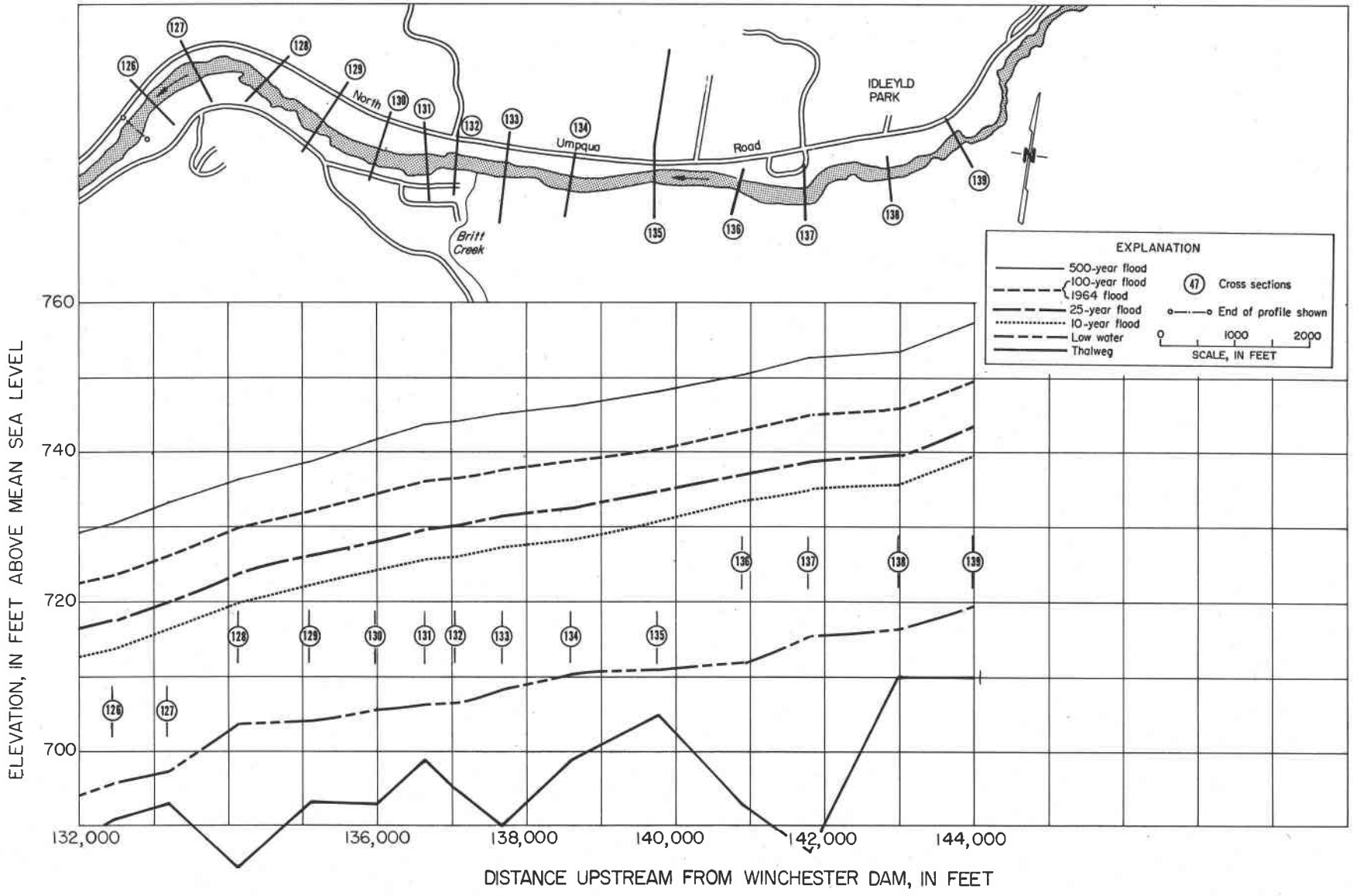

FIGURE 37.--Profiles of North Umpqua River

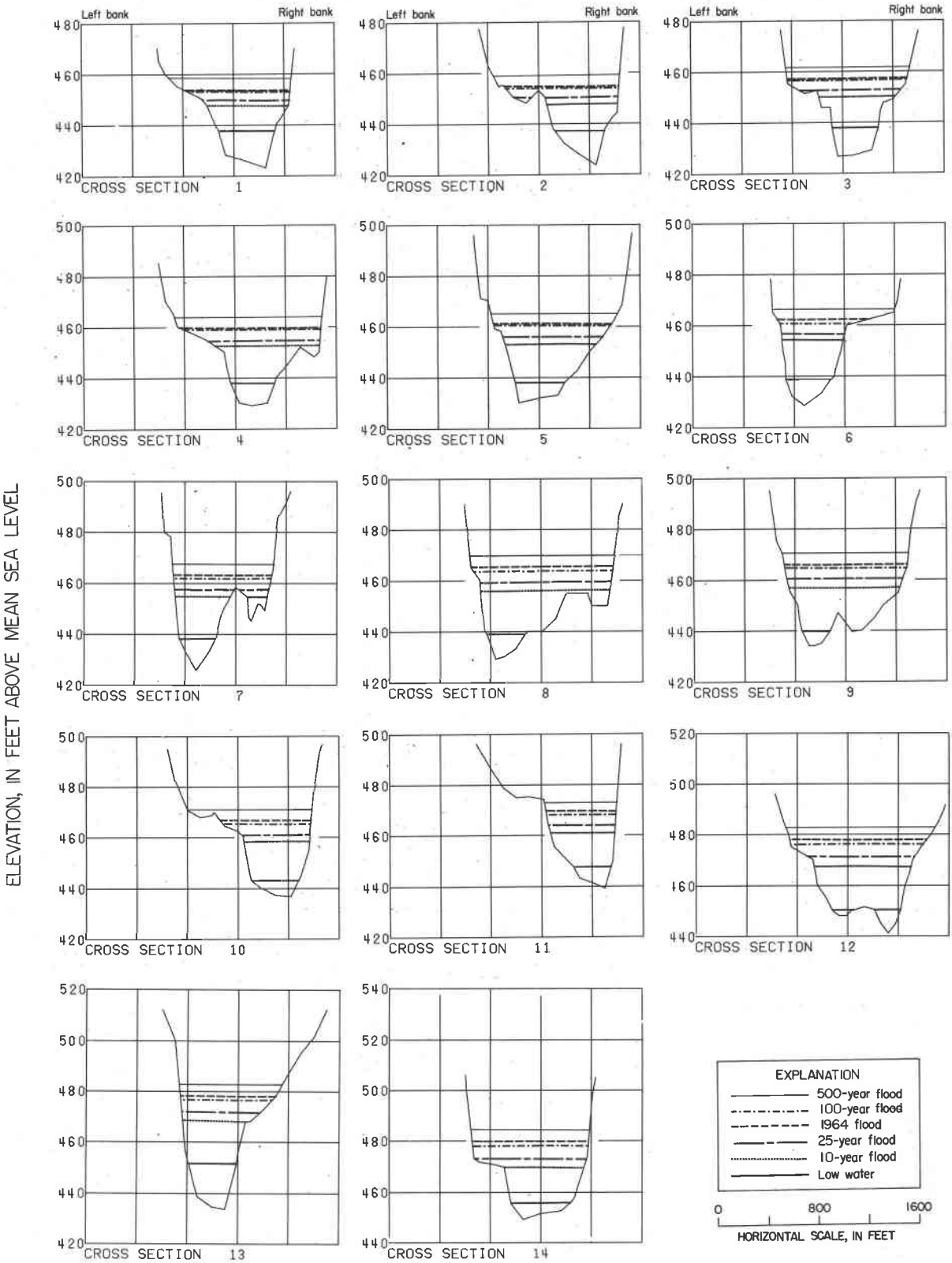

FIGURE 38.--North Umpqua River cross-sections

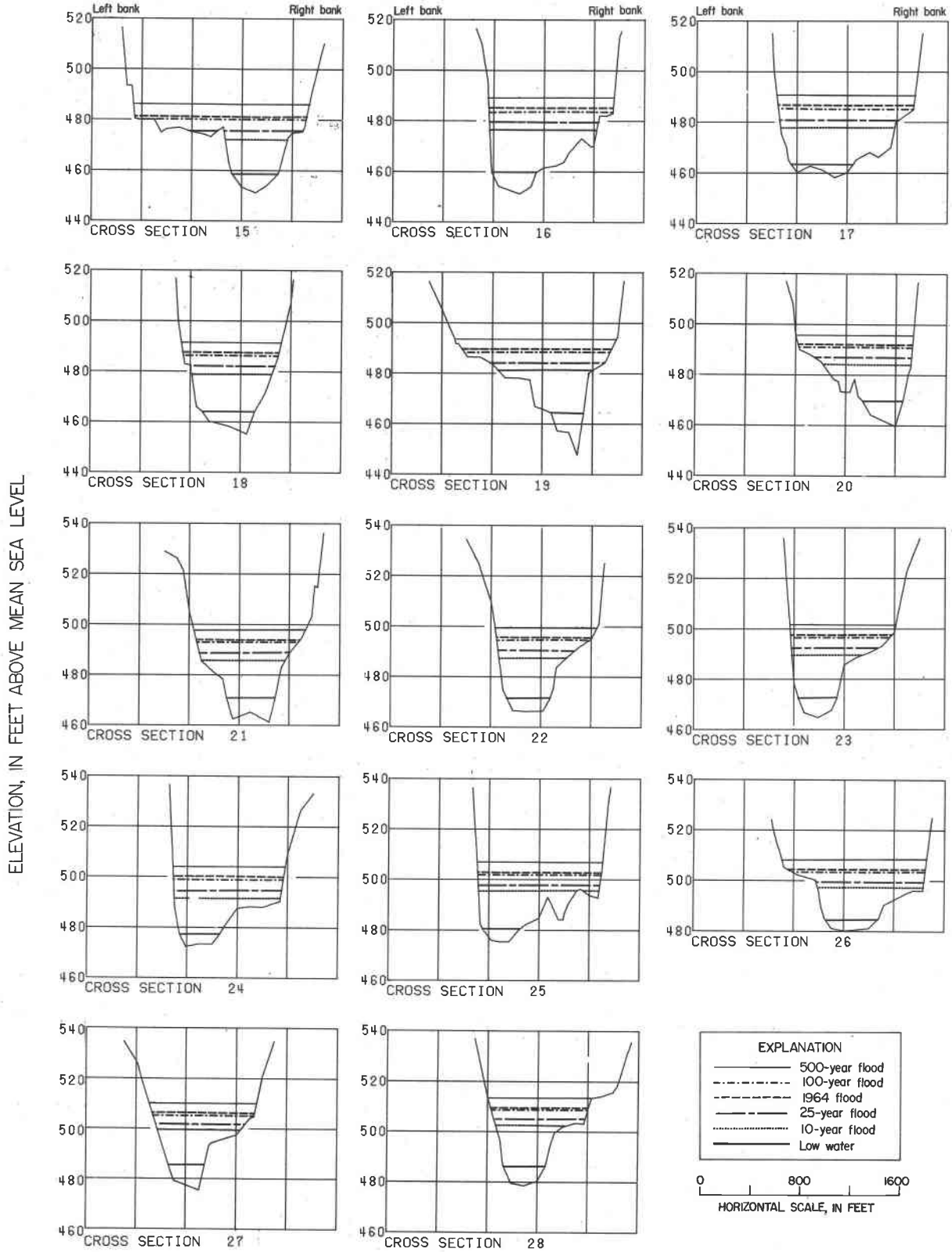

FIGURE 39.--North Umpqua River cross-sections

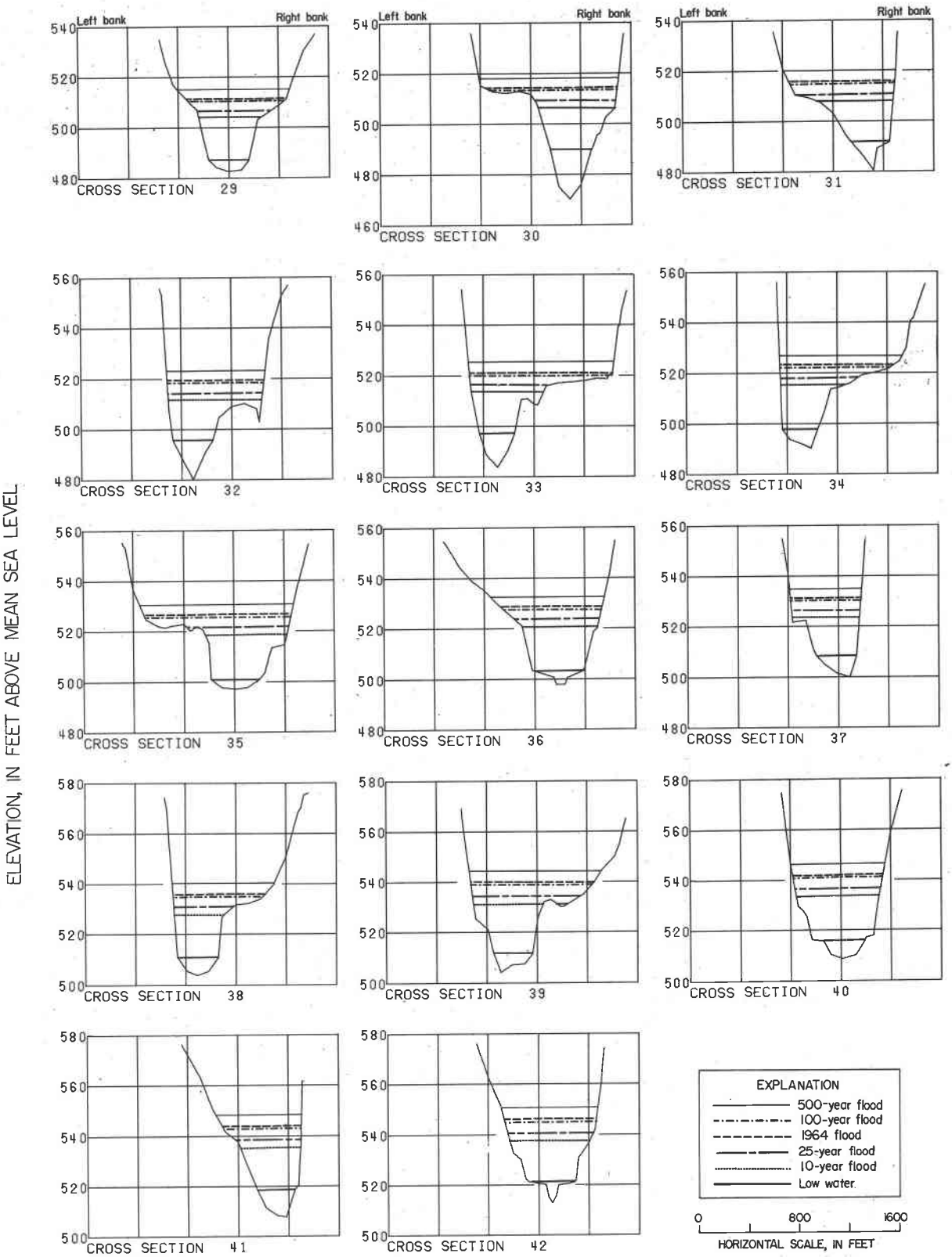

FIGURE 40--North Umpqua River cross-sections

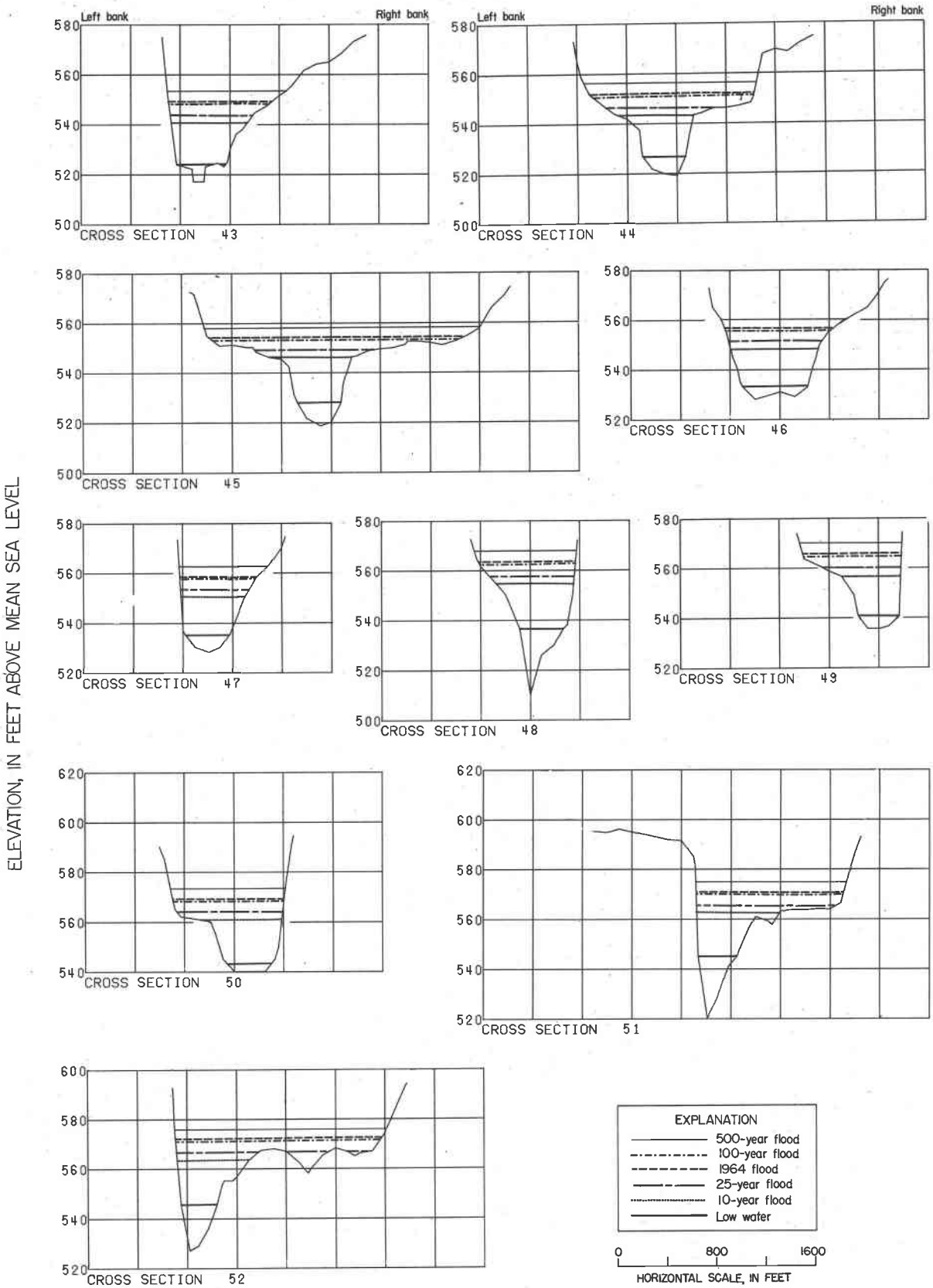

FIGURE 41.--North Umpqua River cross-sections

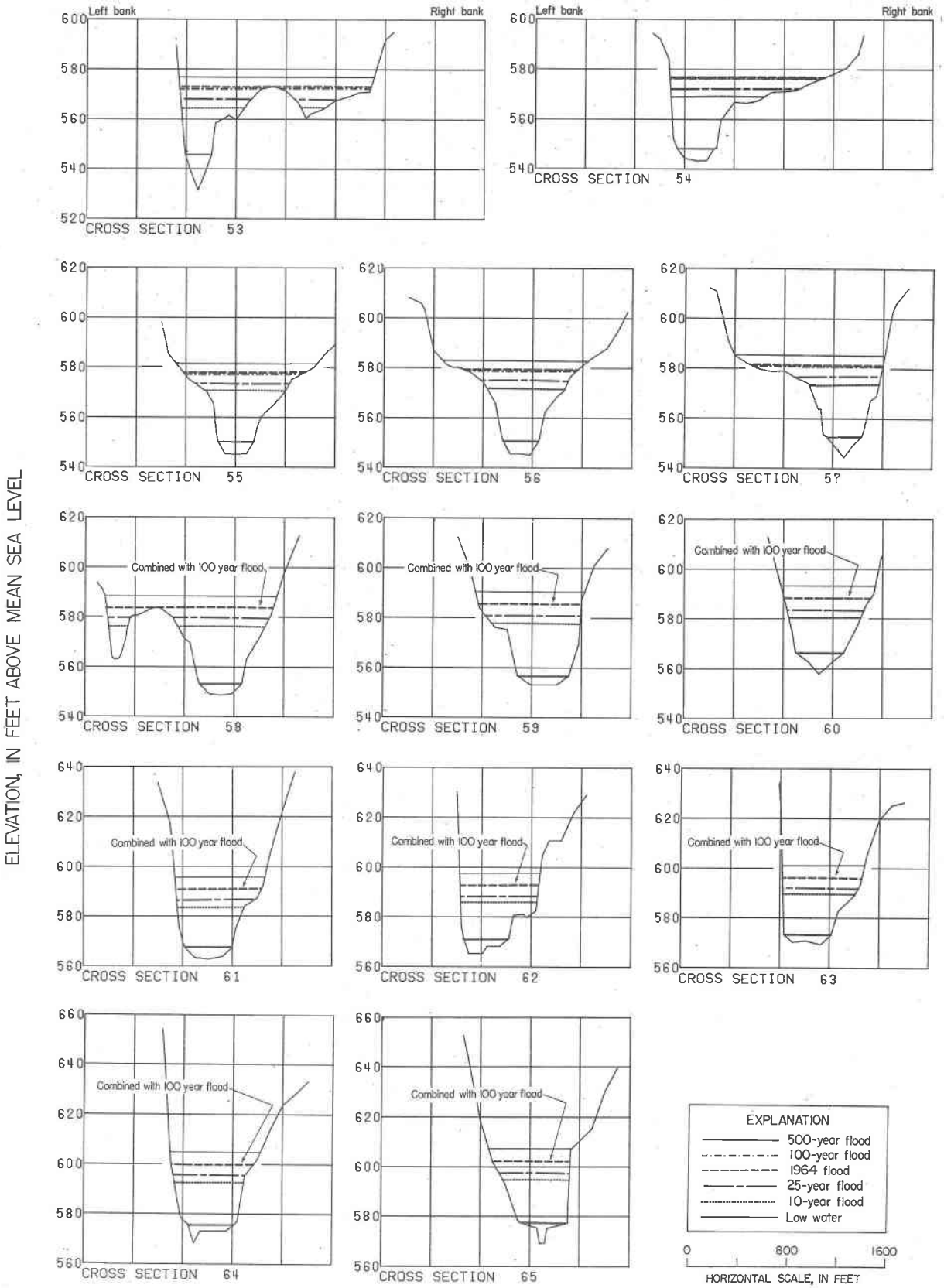

FIGURE 42.--North Umpqua River cross-sections

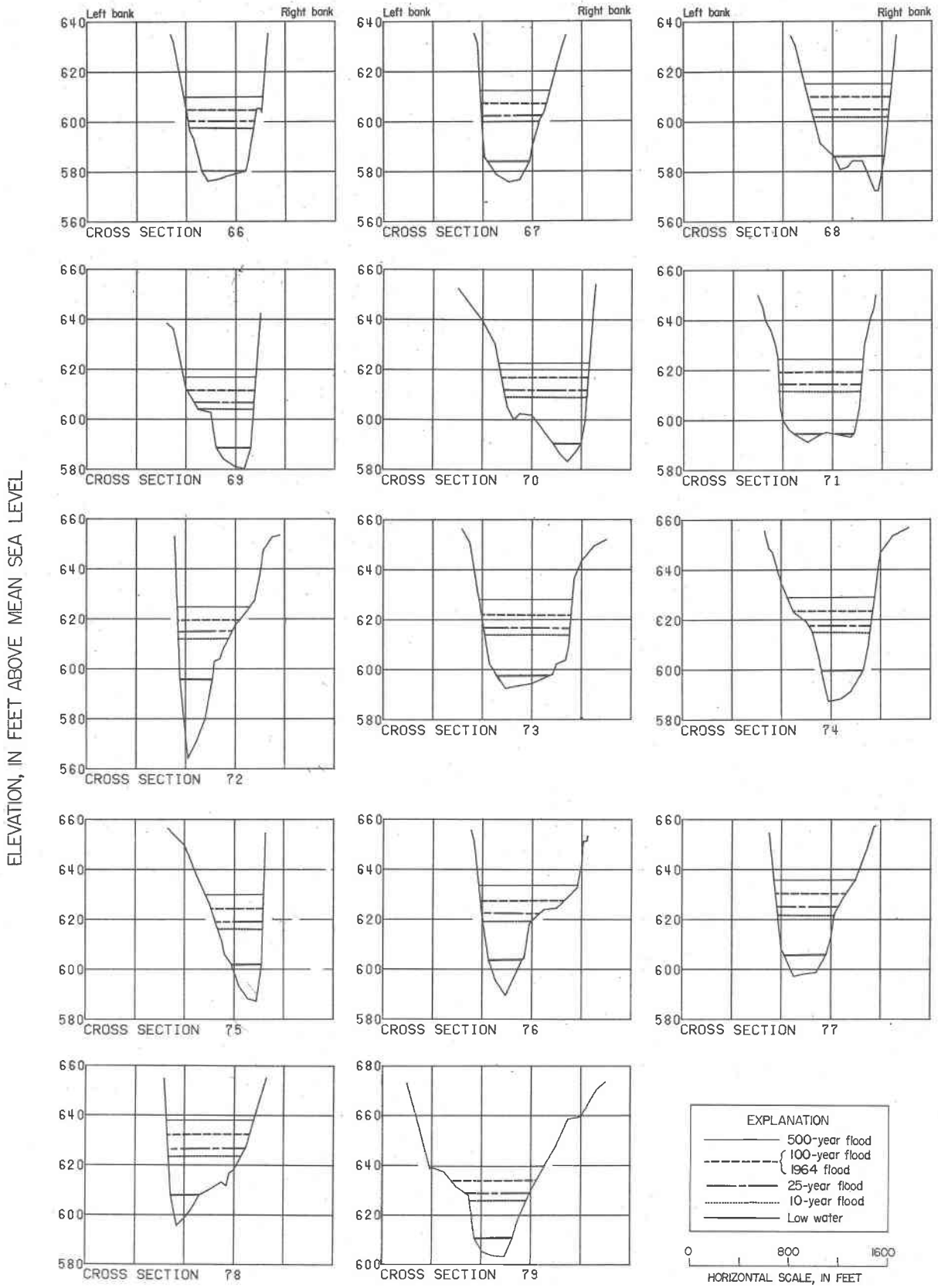

FIGURE 43.--North Umpqua River cross-sections

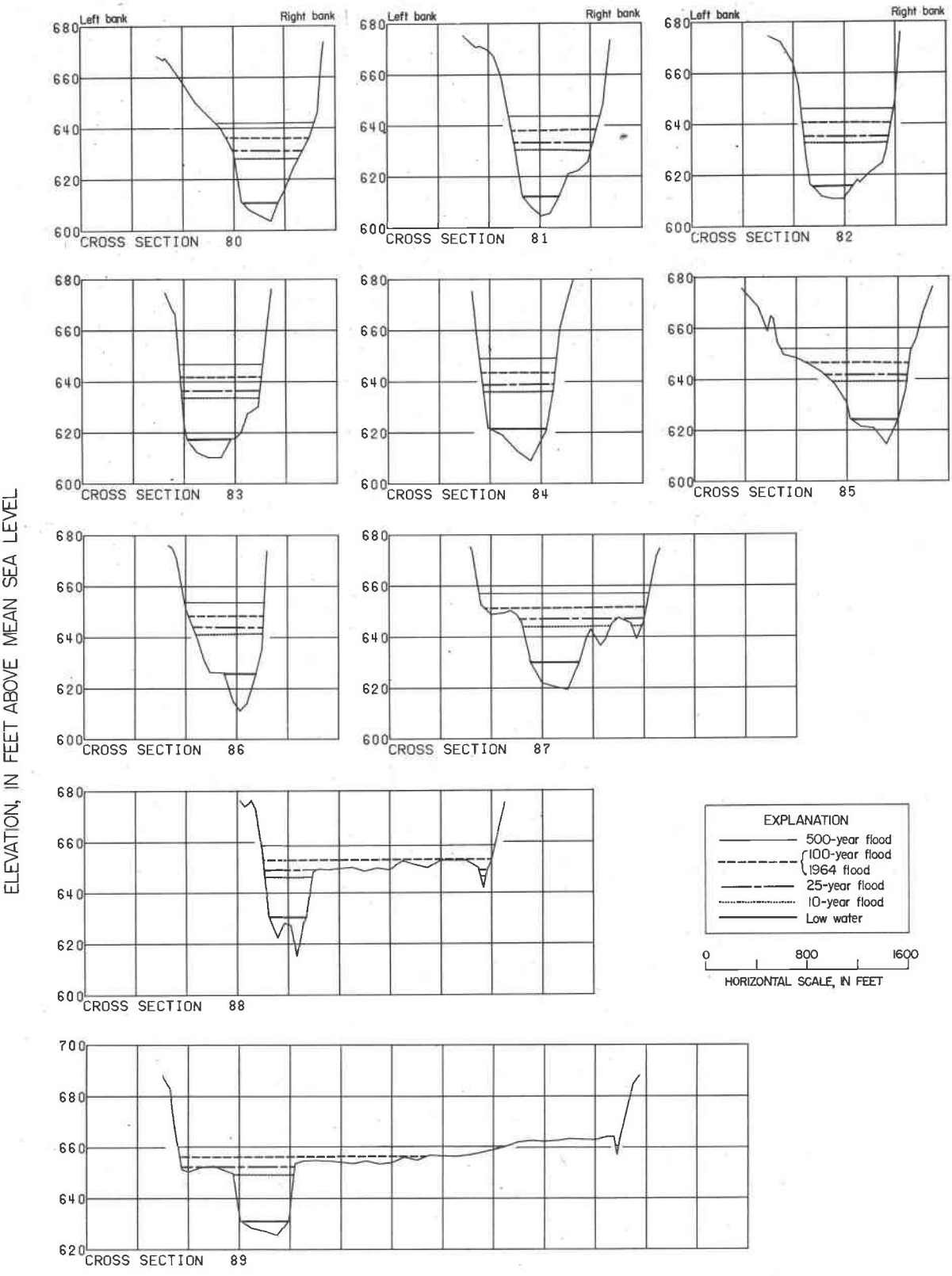

FIGURE 44.--North Umpqua River cross-sections

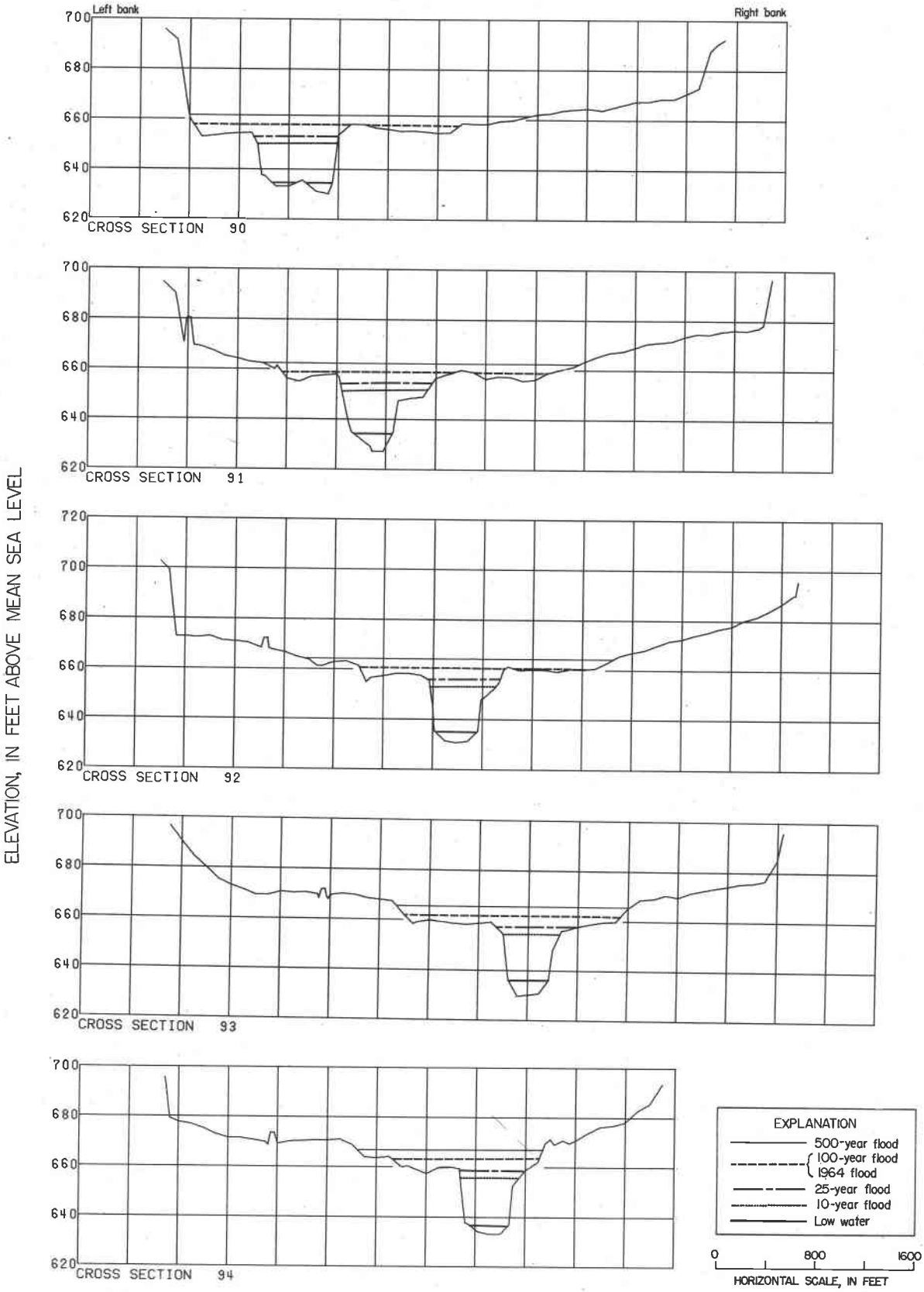

FIGURE 45.--North Umpqua River cross-sections

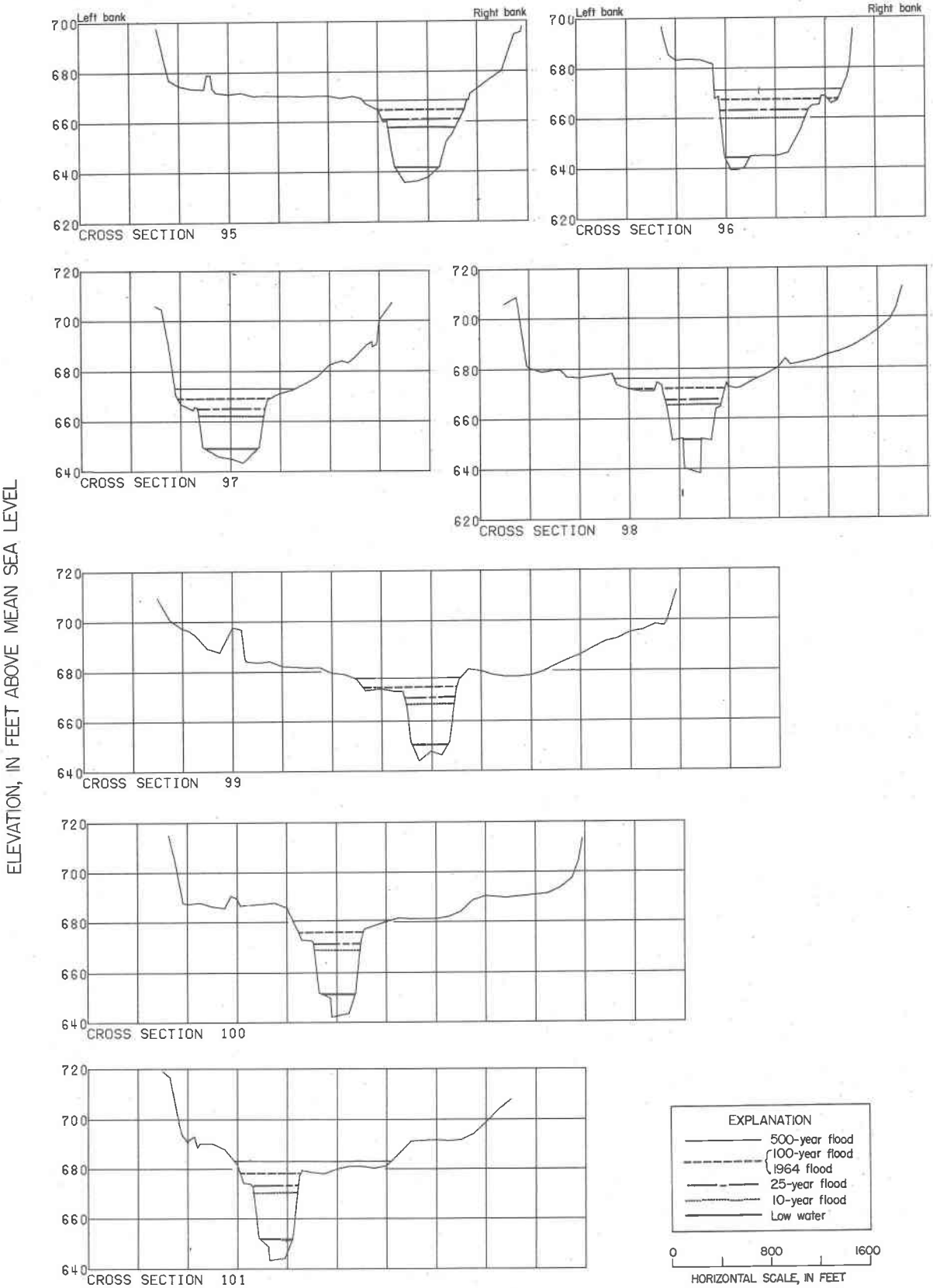

FIGURE 46--North Umpqua River cross-sections

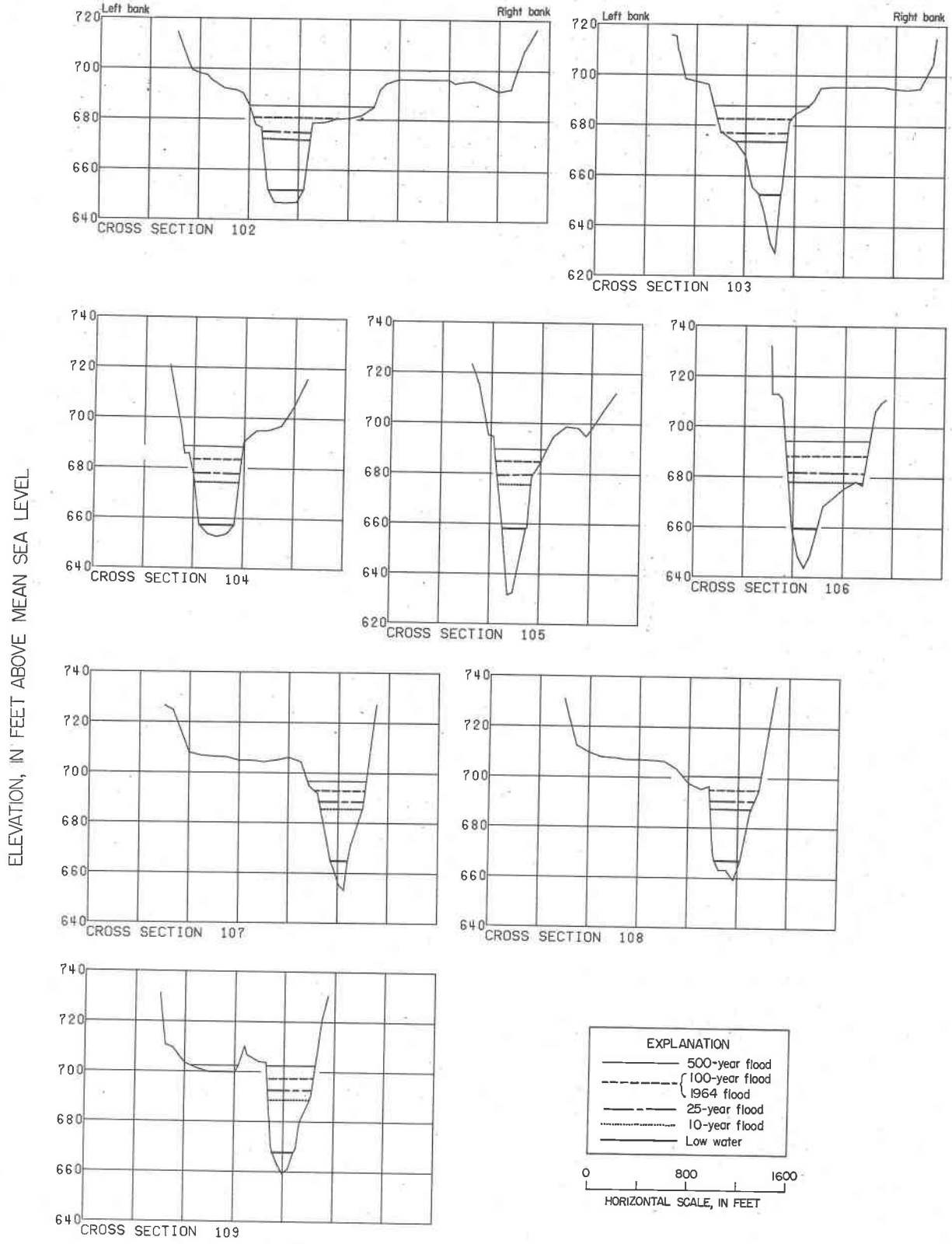

FIGURE 47.--North Umpqua River cross-sections

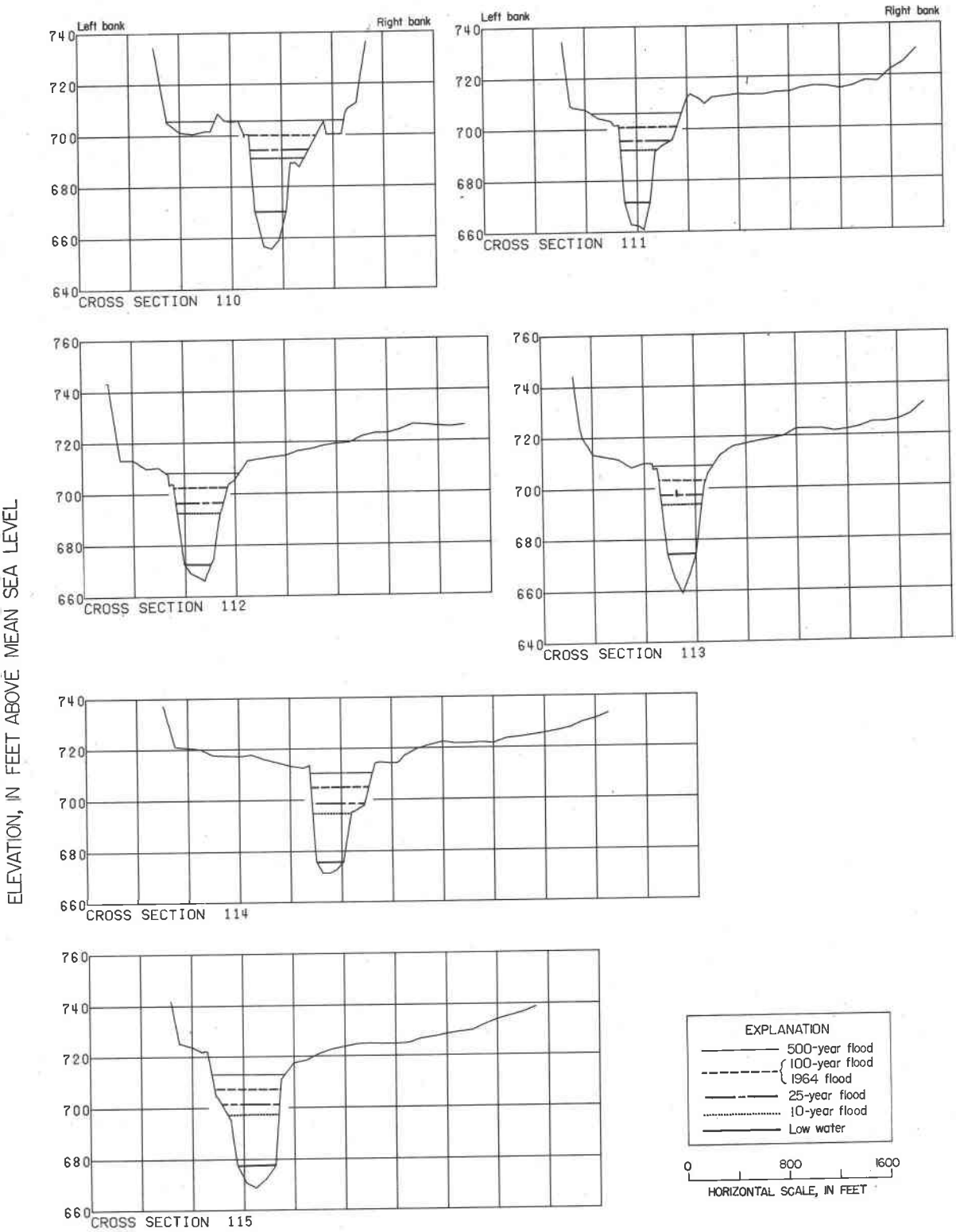

FIGURE 48.--North Umpqua River cross-sections

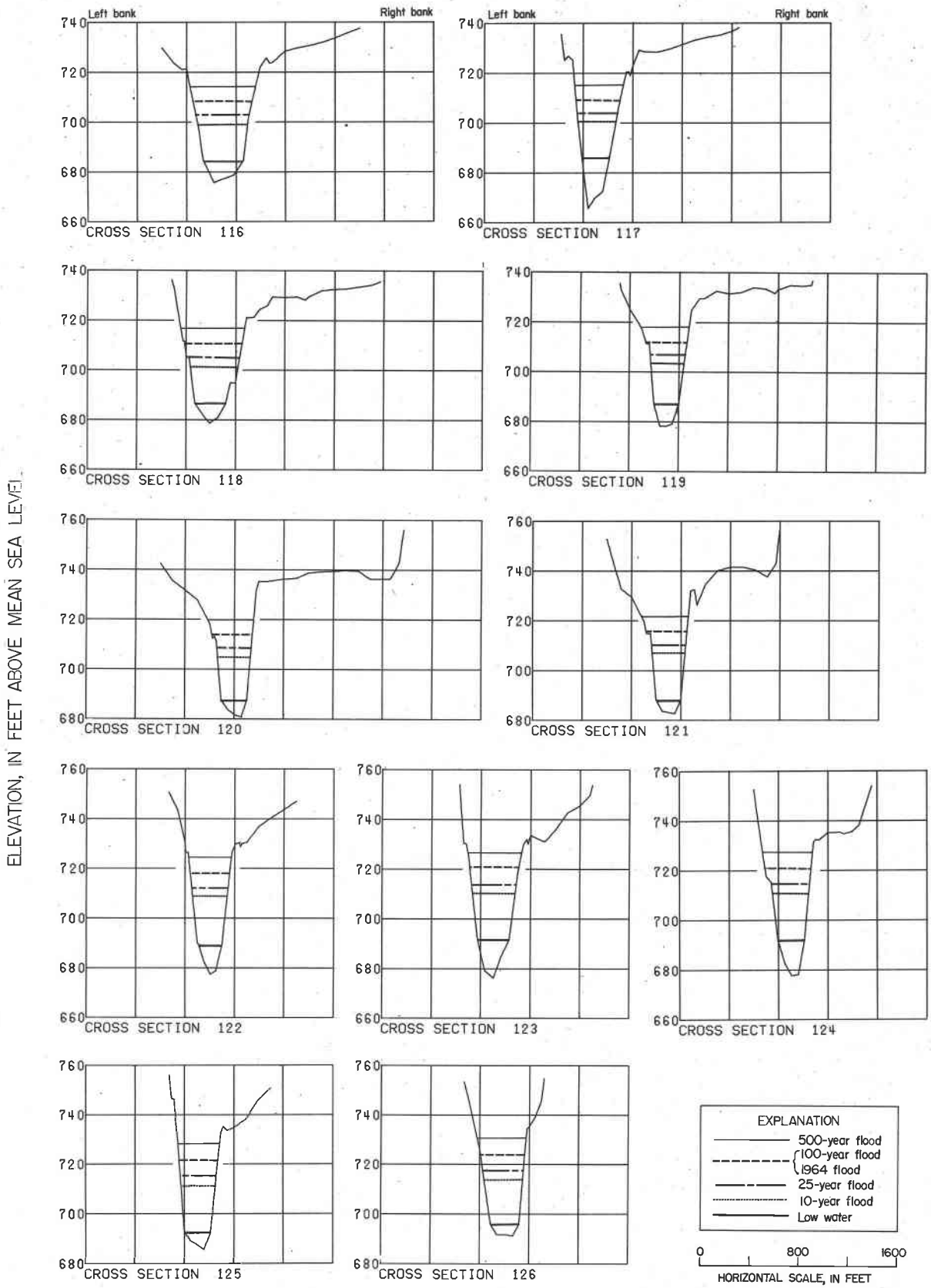

FIGURE 49.--North Umpqua River cross-sections

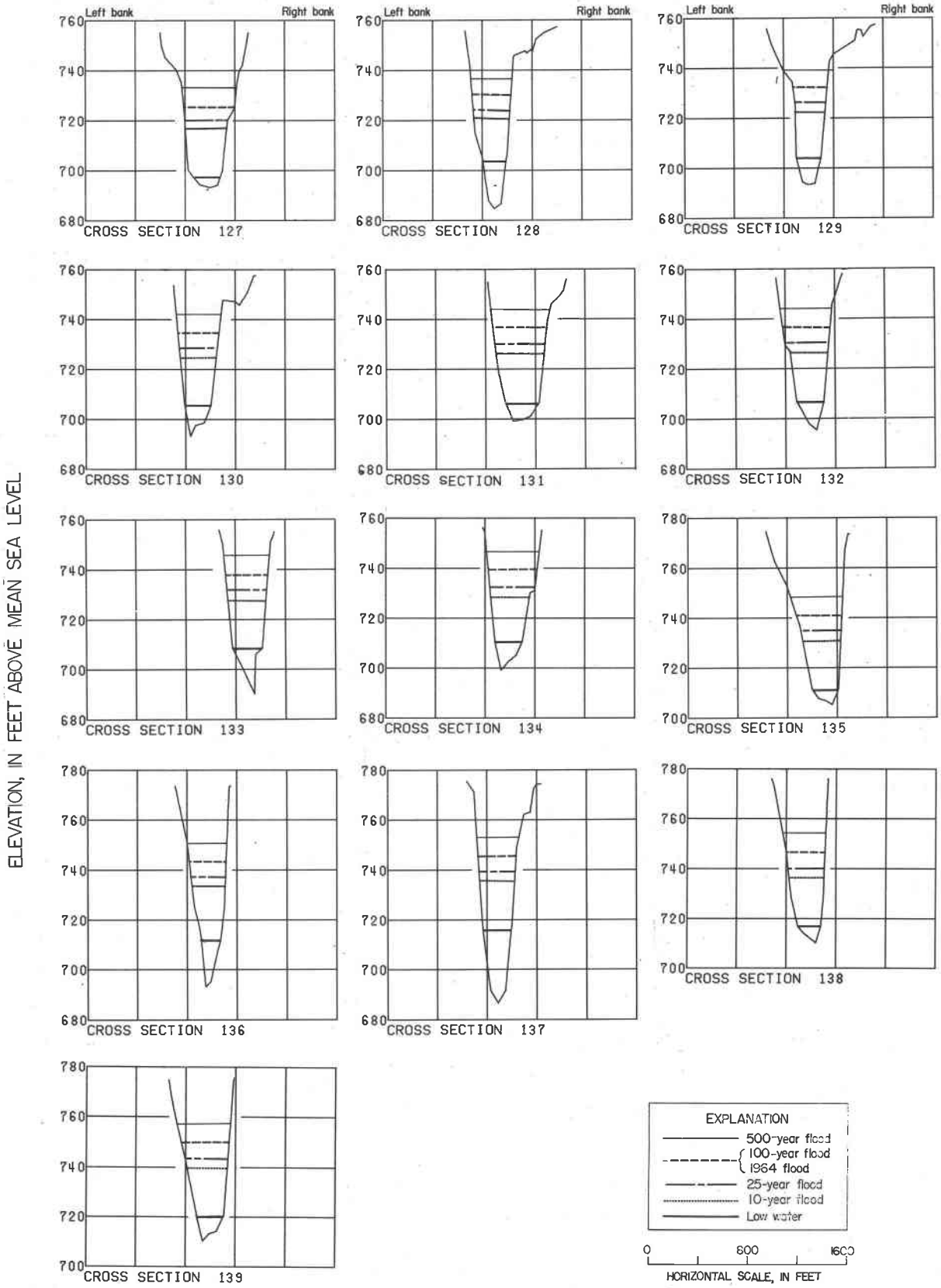

FIGURE 50.--North Umpqua River cross-sections

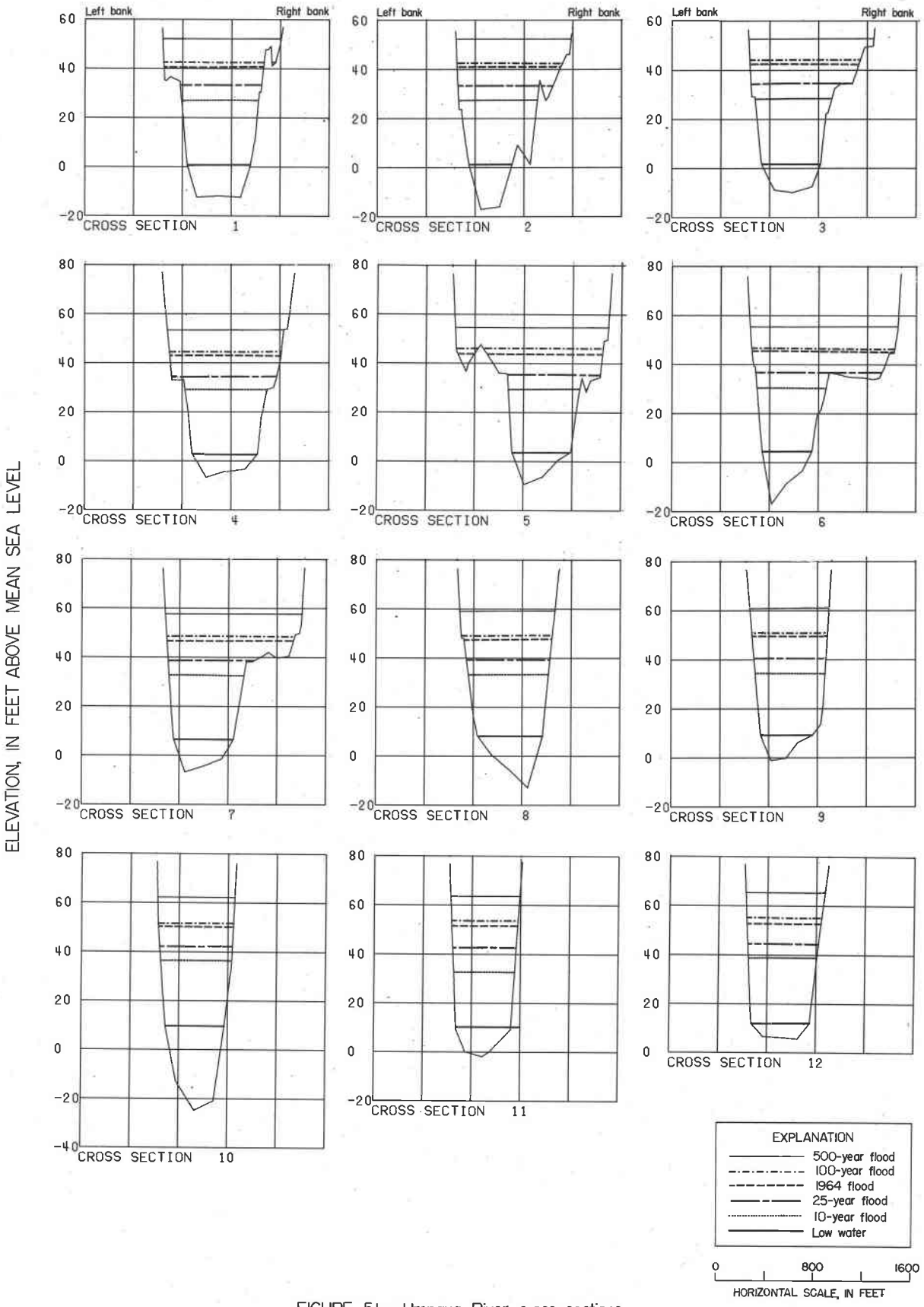

FIGURE 51.-- Umpqua River cross-sections

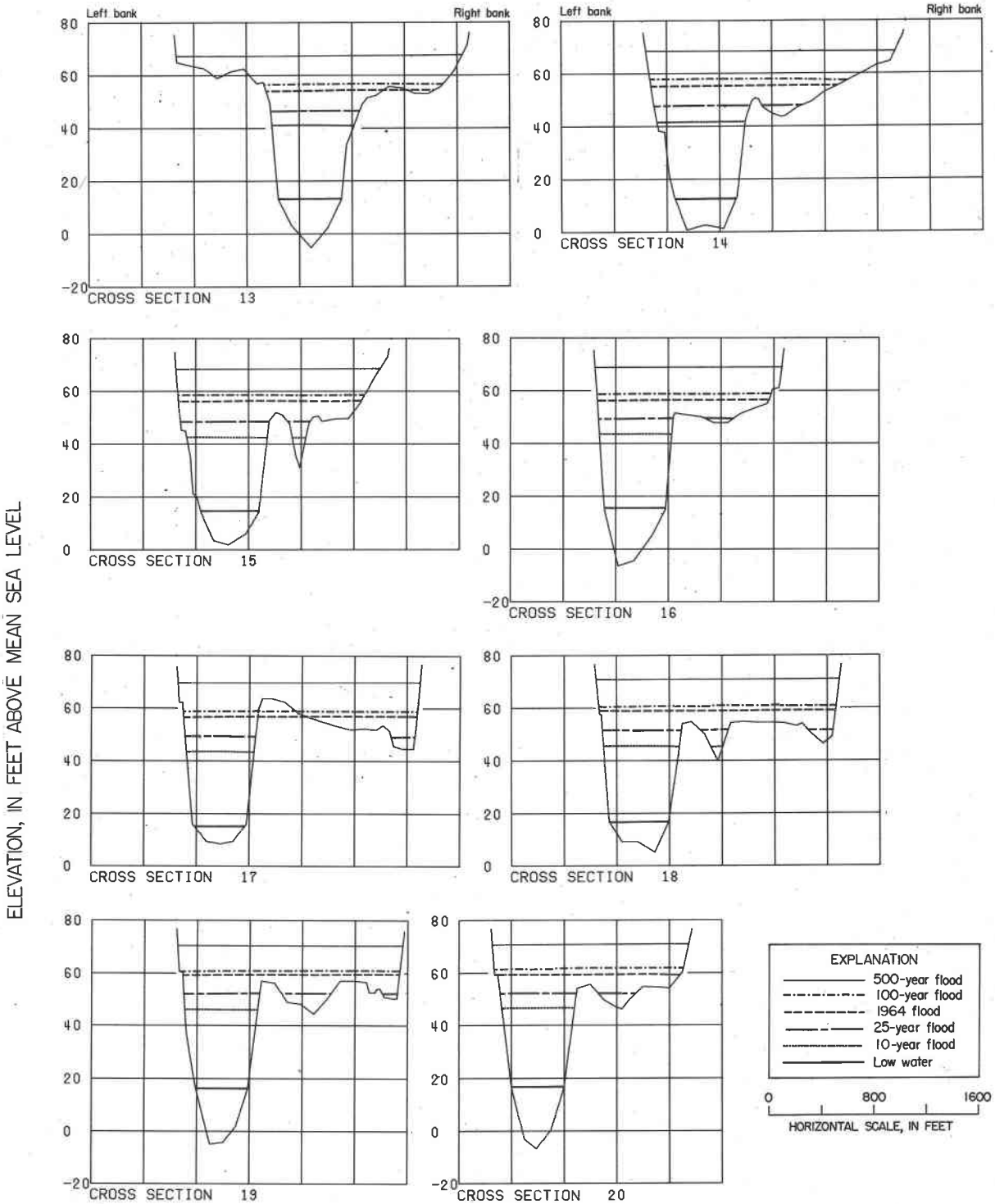

FIGURE 52.--Umpqua River cross-sections

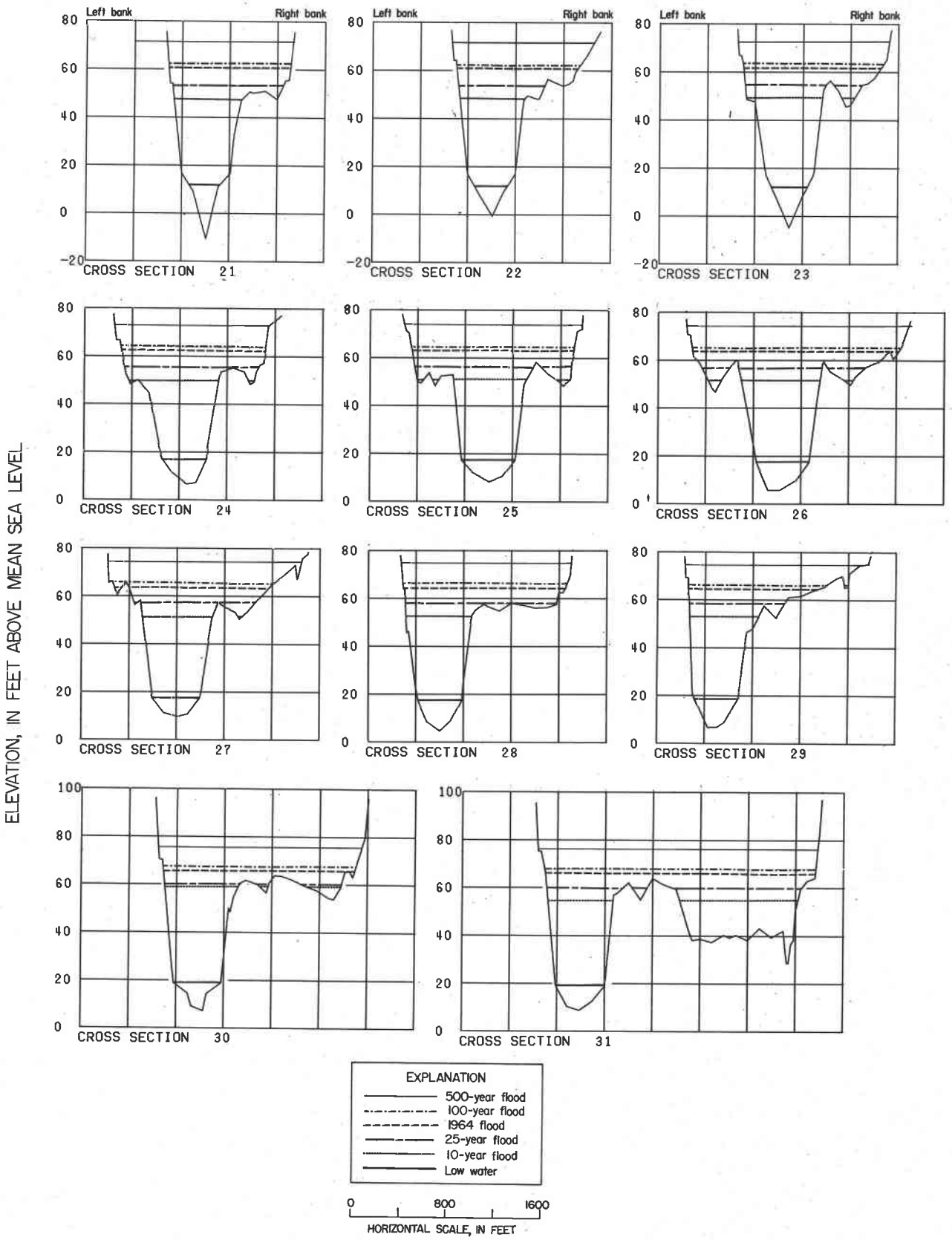

FIGURE 53.--Umpqua River cross-sections

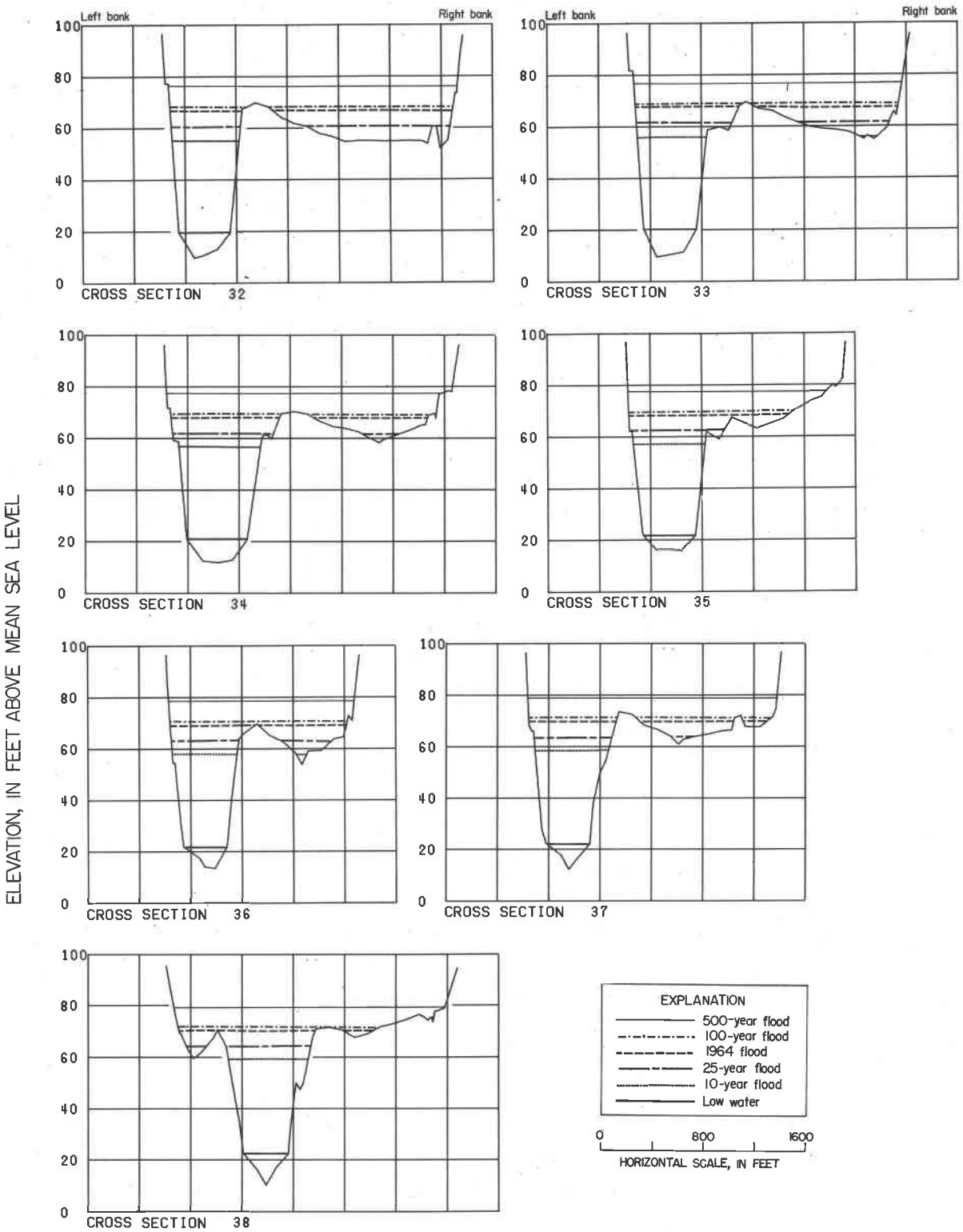

FIGURE 54.--Umpqua River cross-sections

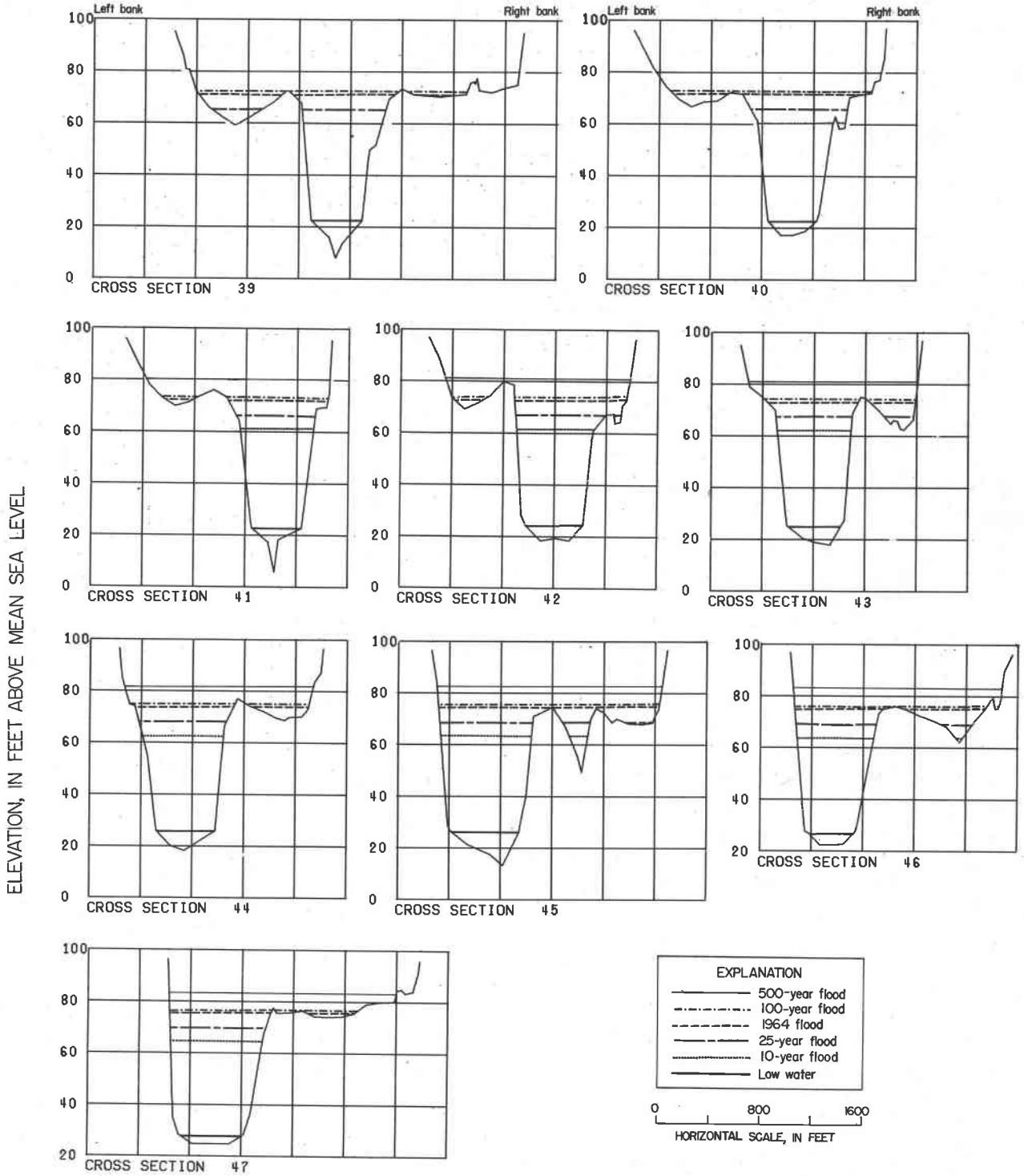

FIGURE 55.--Umpqua River cross-sections

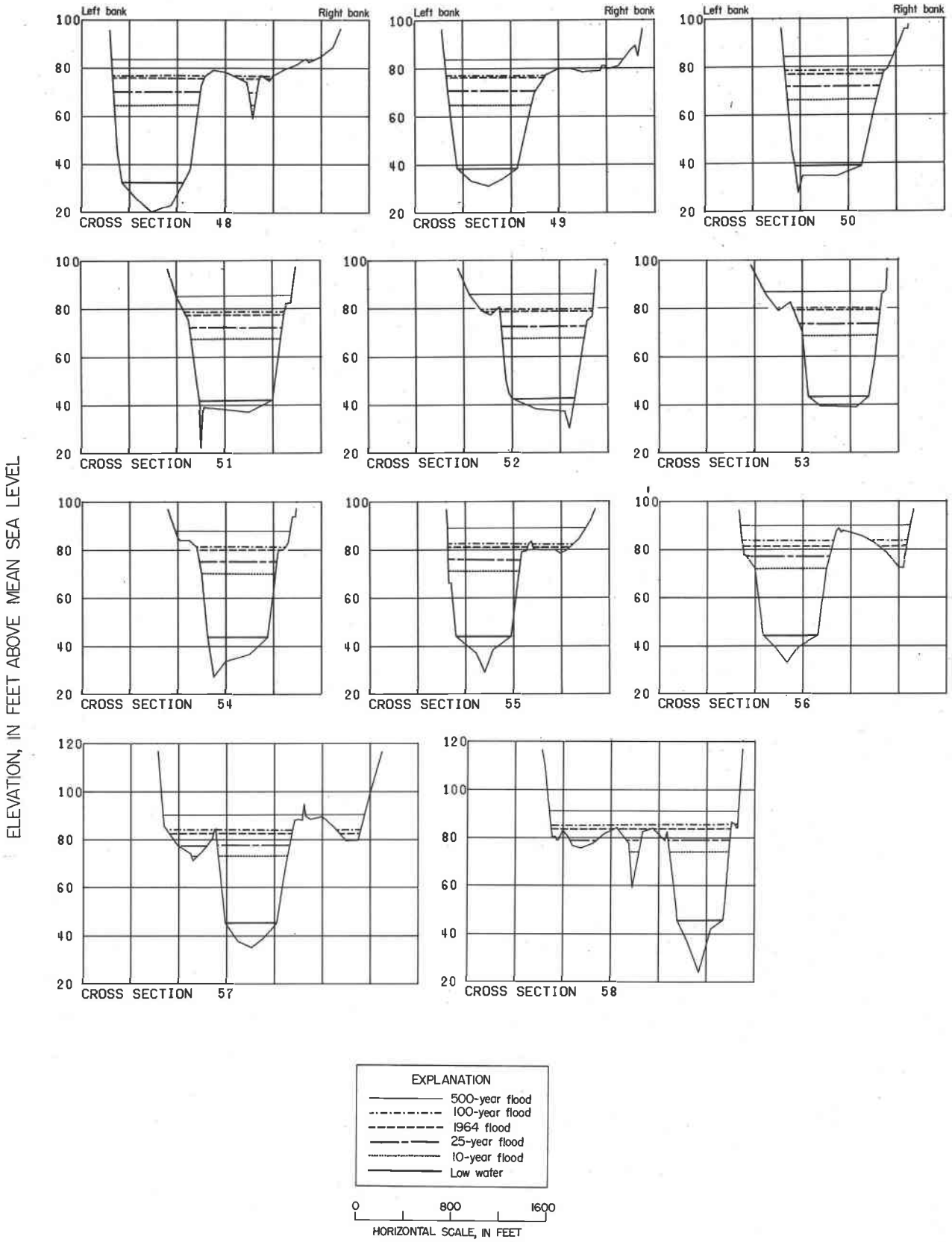

FIGURE 56.--Umpqua River cross-sections

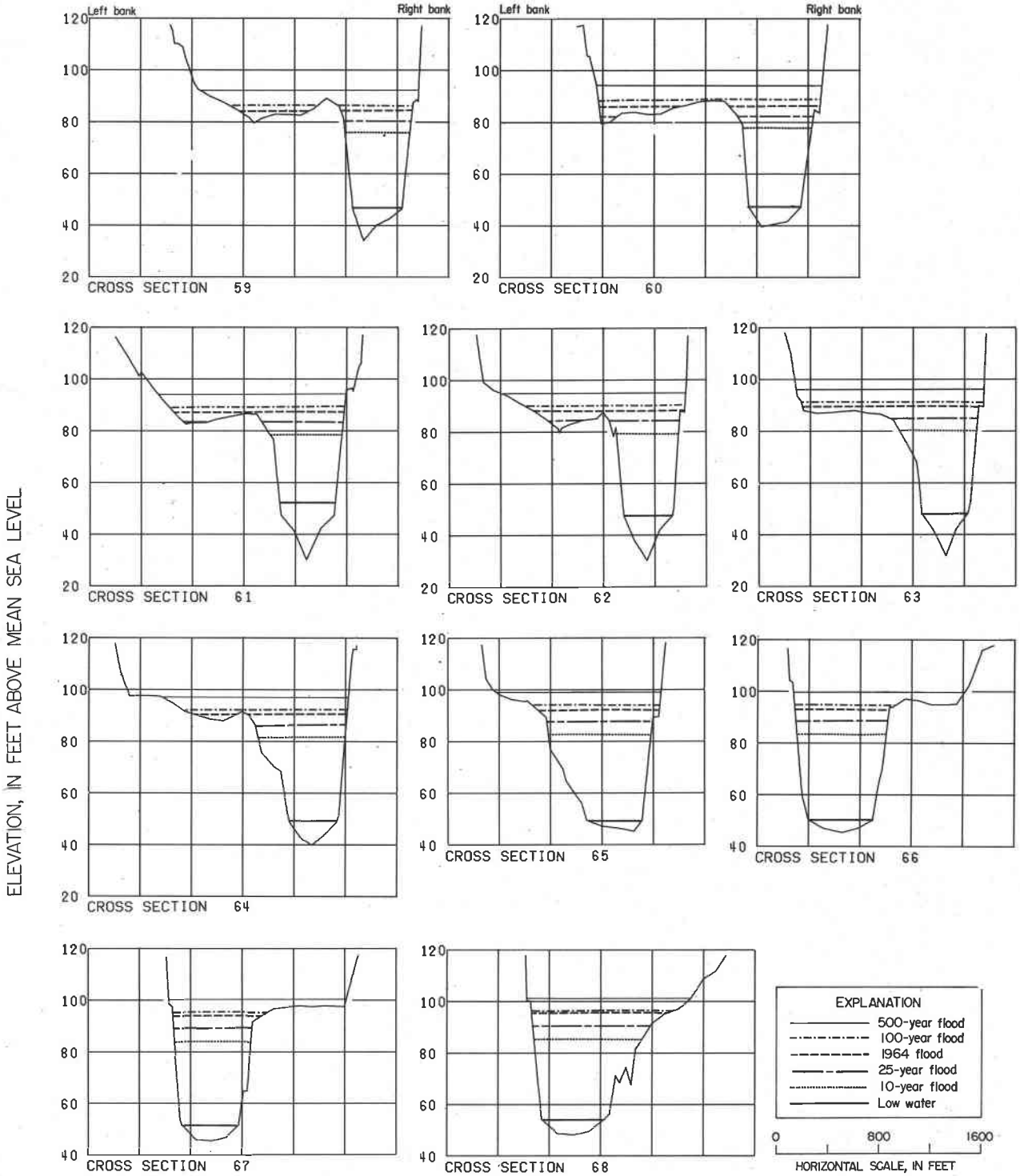

FIGURE 57.--Umpqua River cross-sections

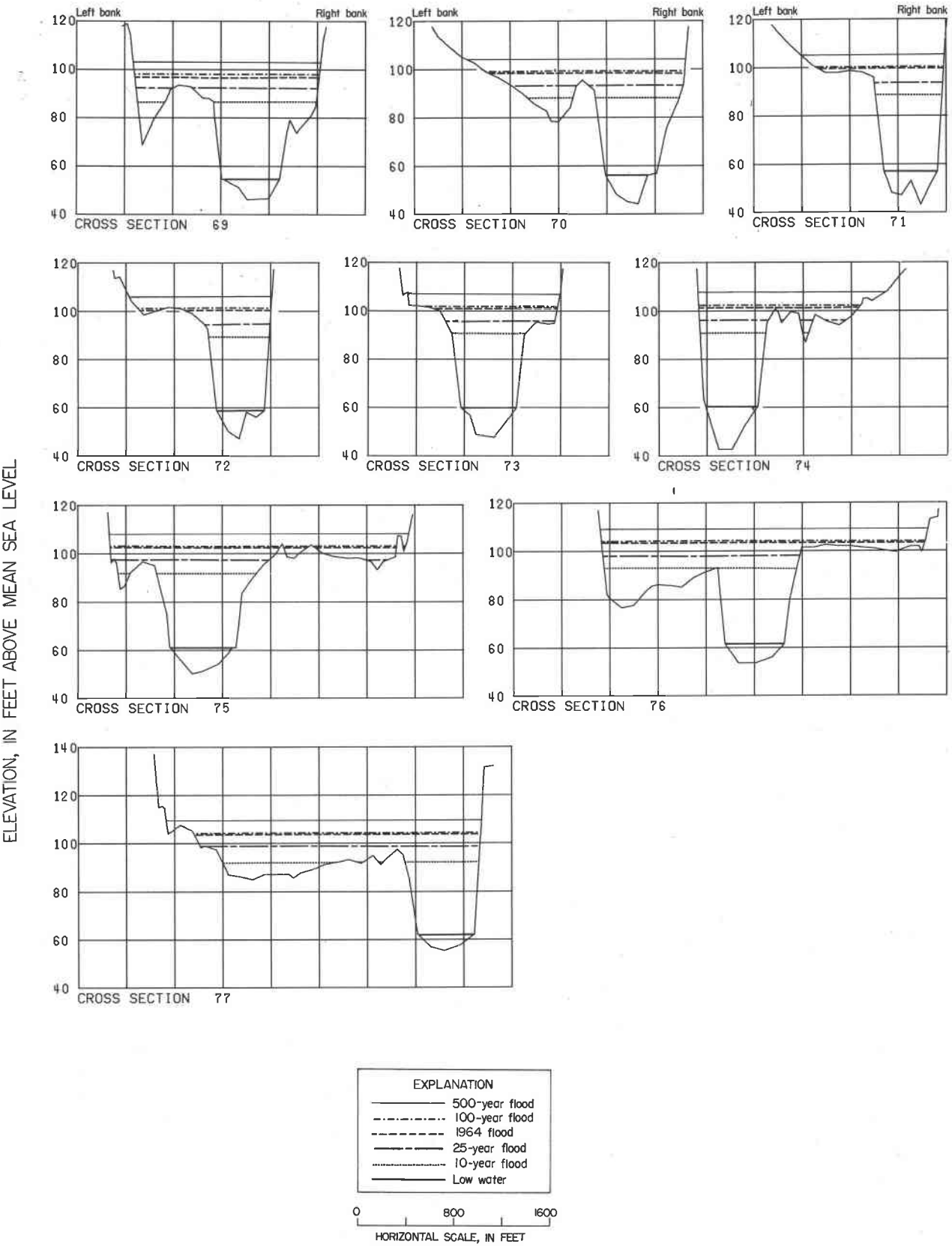

FIGURE 58.--Umpqua River cross-sections

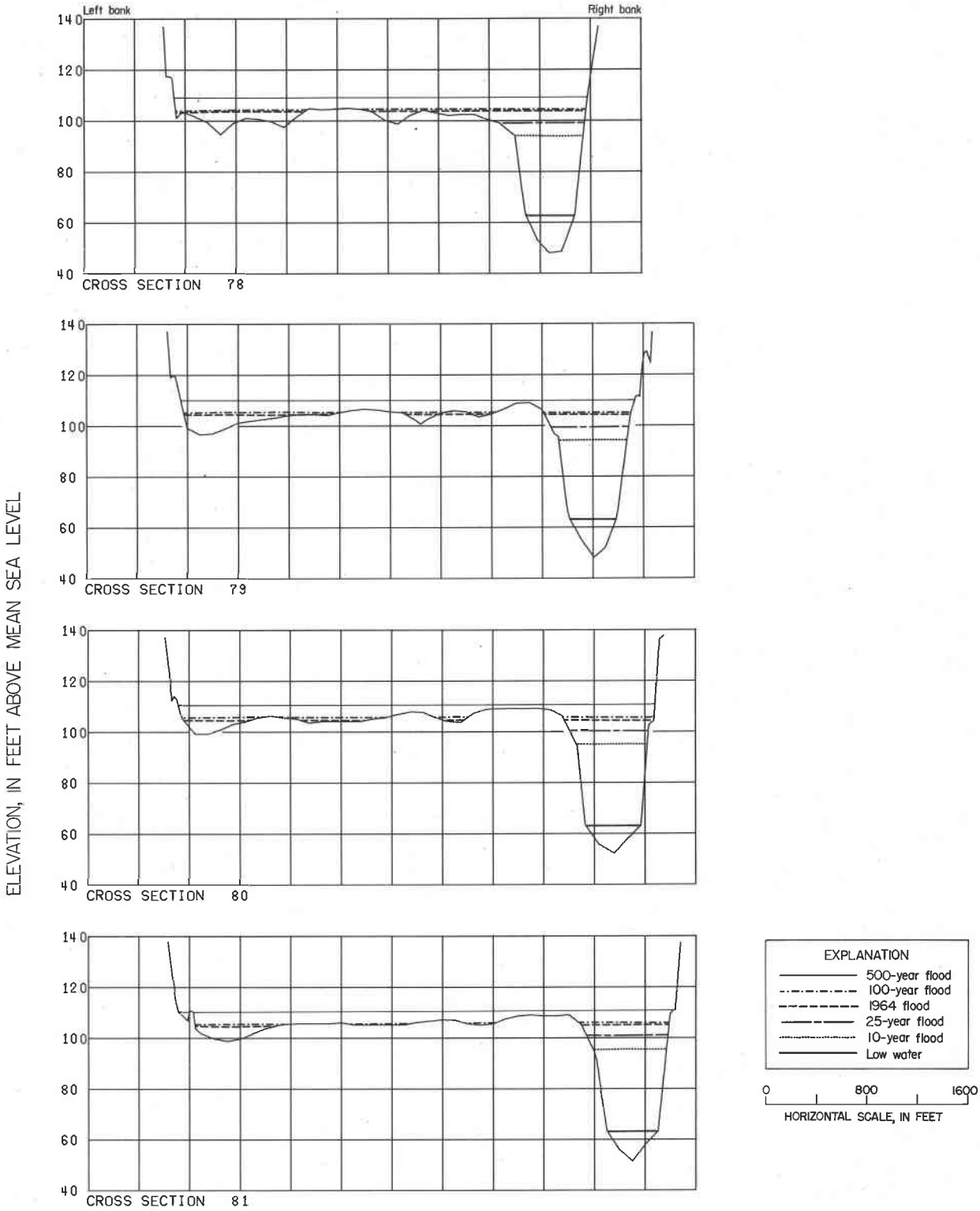

FIGURE 59--Umpqua River cross-sections

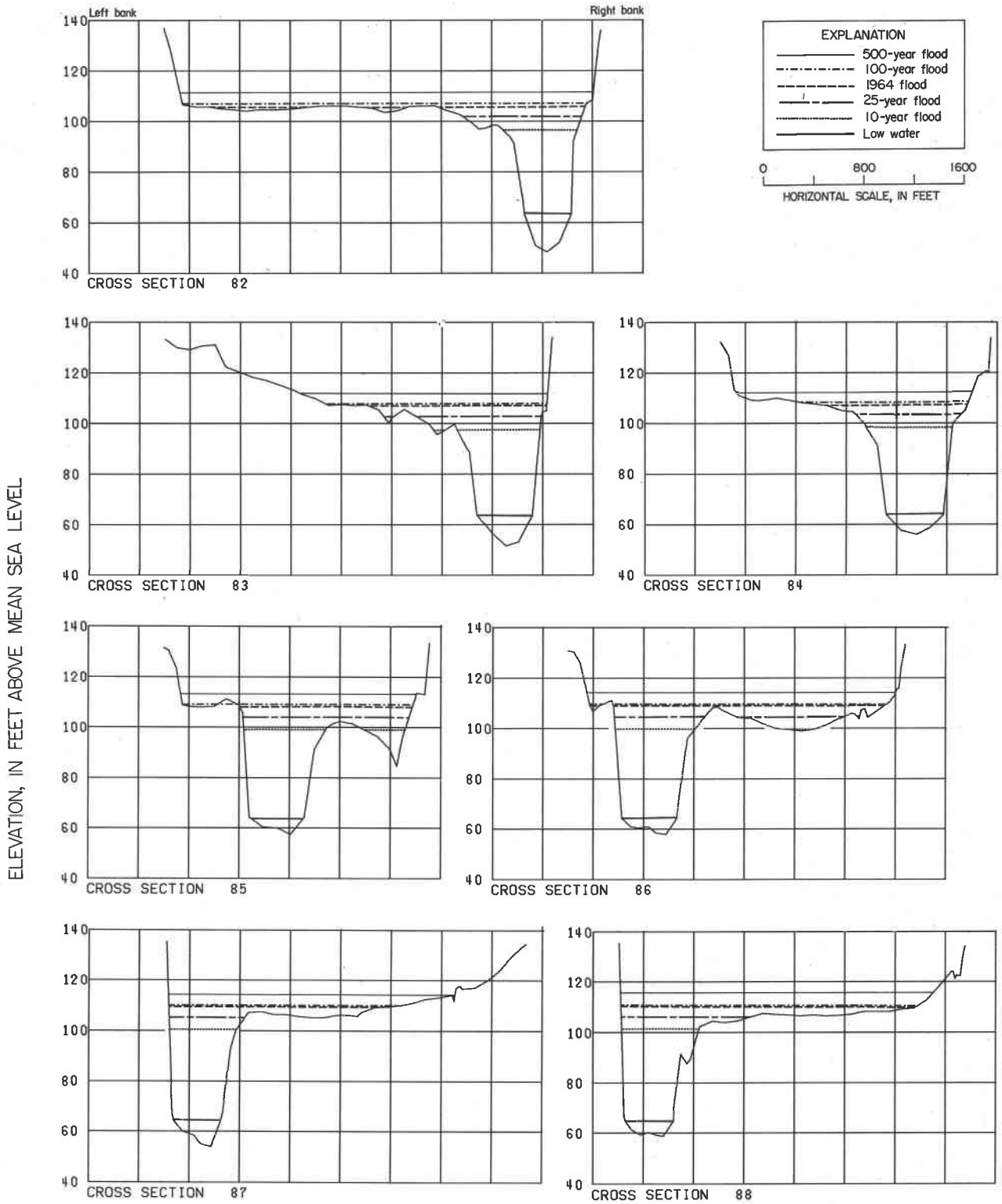

FIGURE 60.--Umpqua River cross-sections

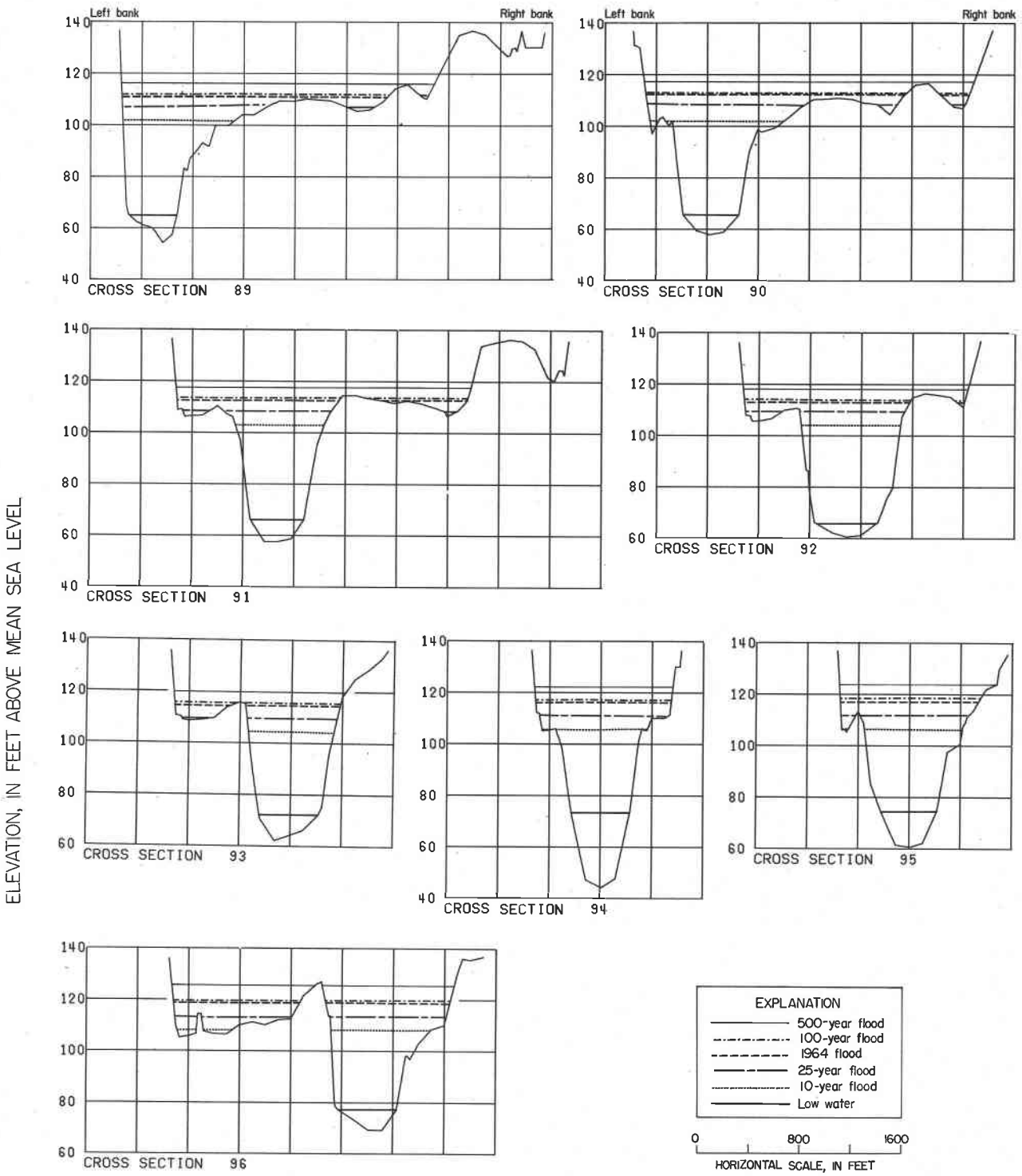

FIGURE 61.--Umpqua River cross-sections

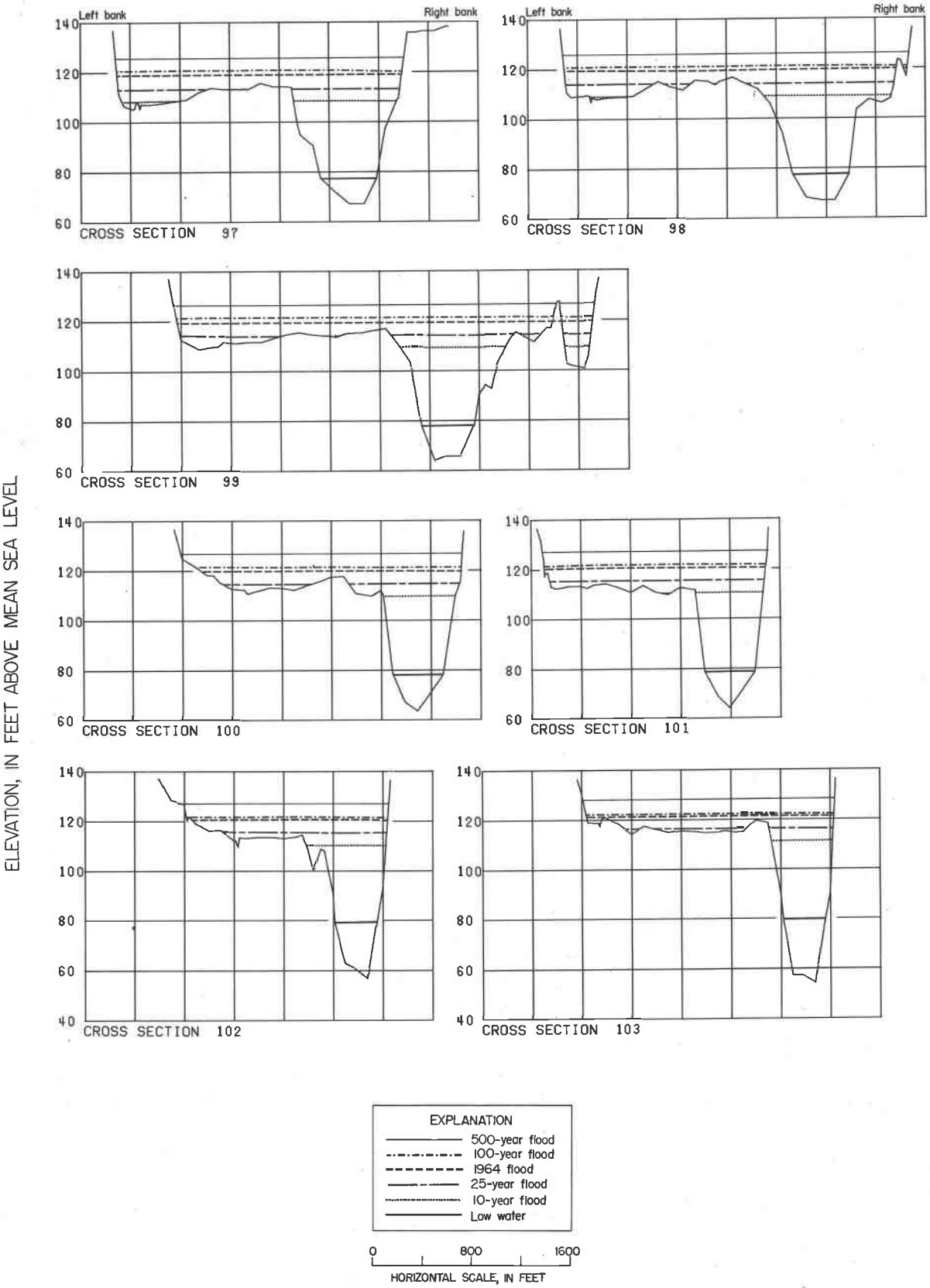

FIGURE 62.--Umpqua River cross-sections

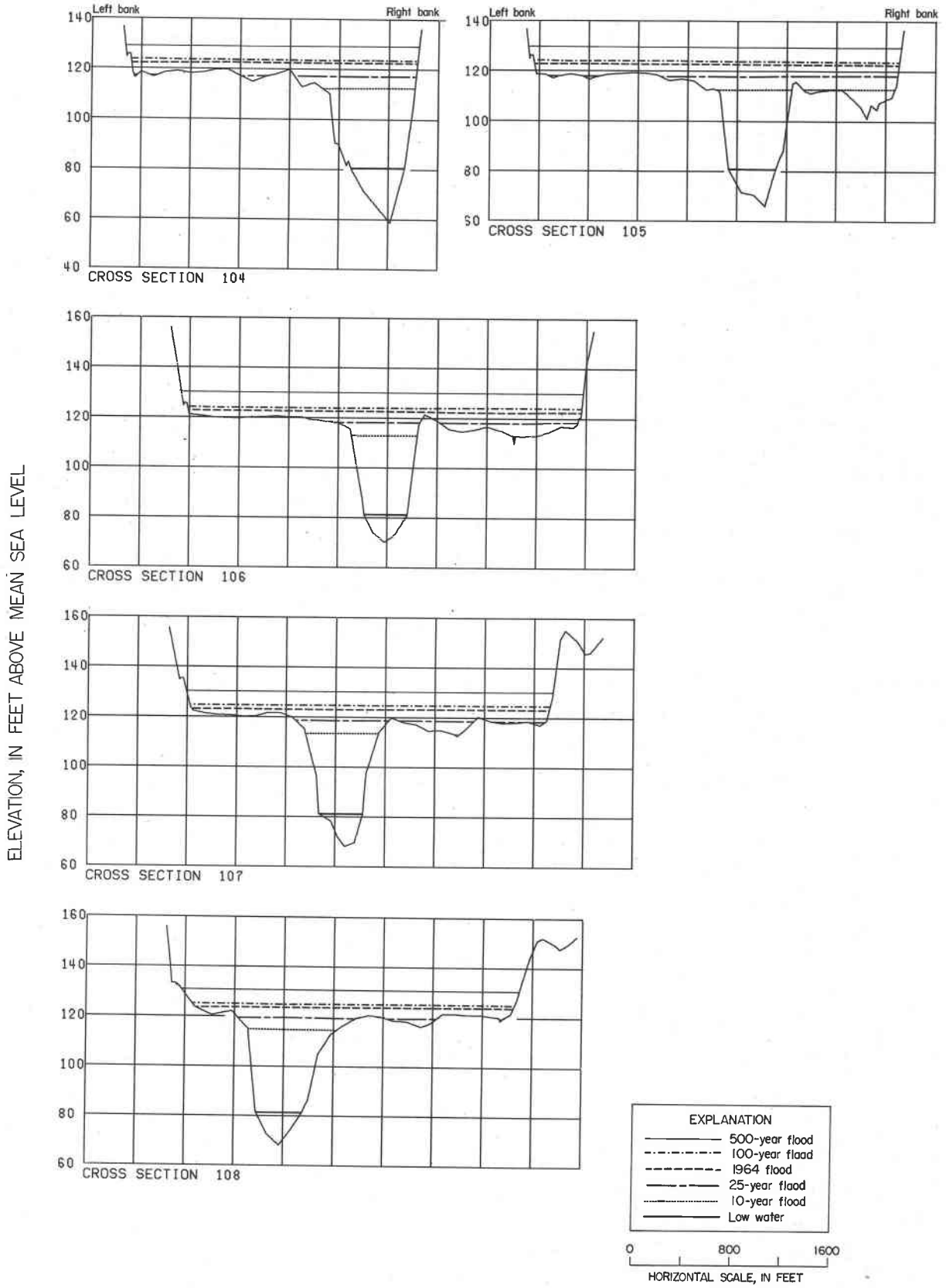

FIGURE 63.--Umpqua River cross-sections

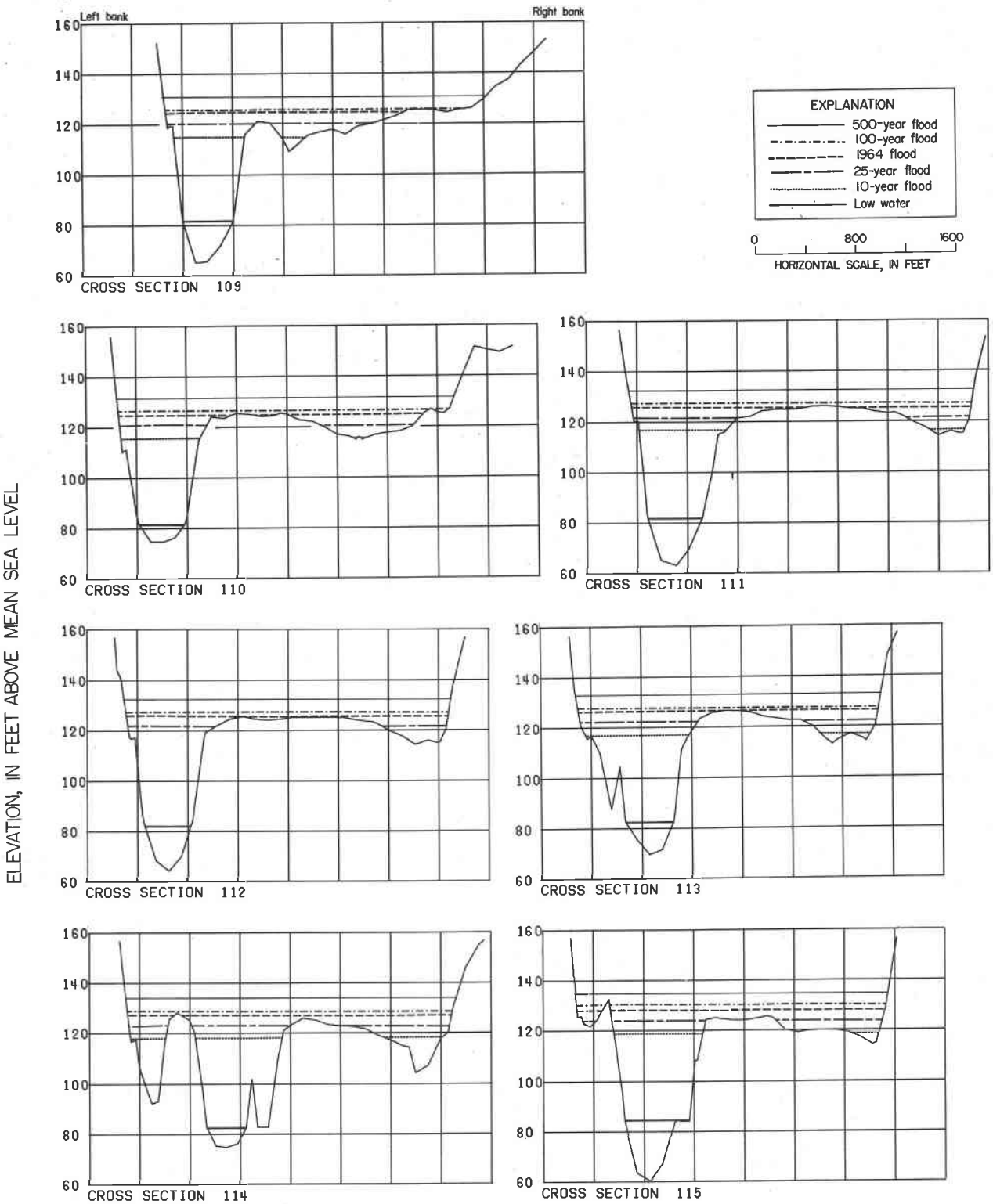

FIGURE 64.--Umpqua River cross-sections

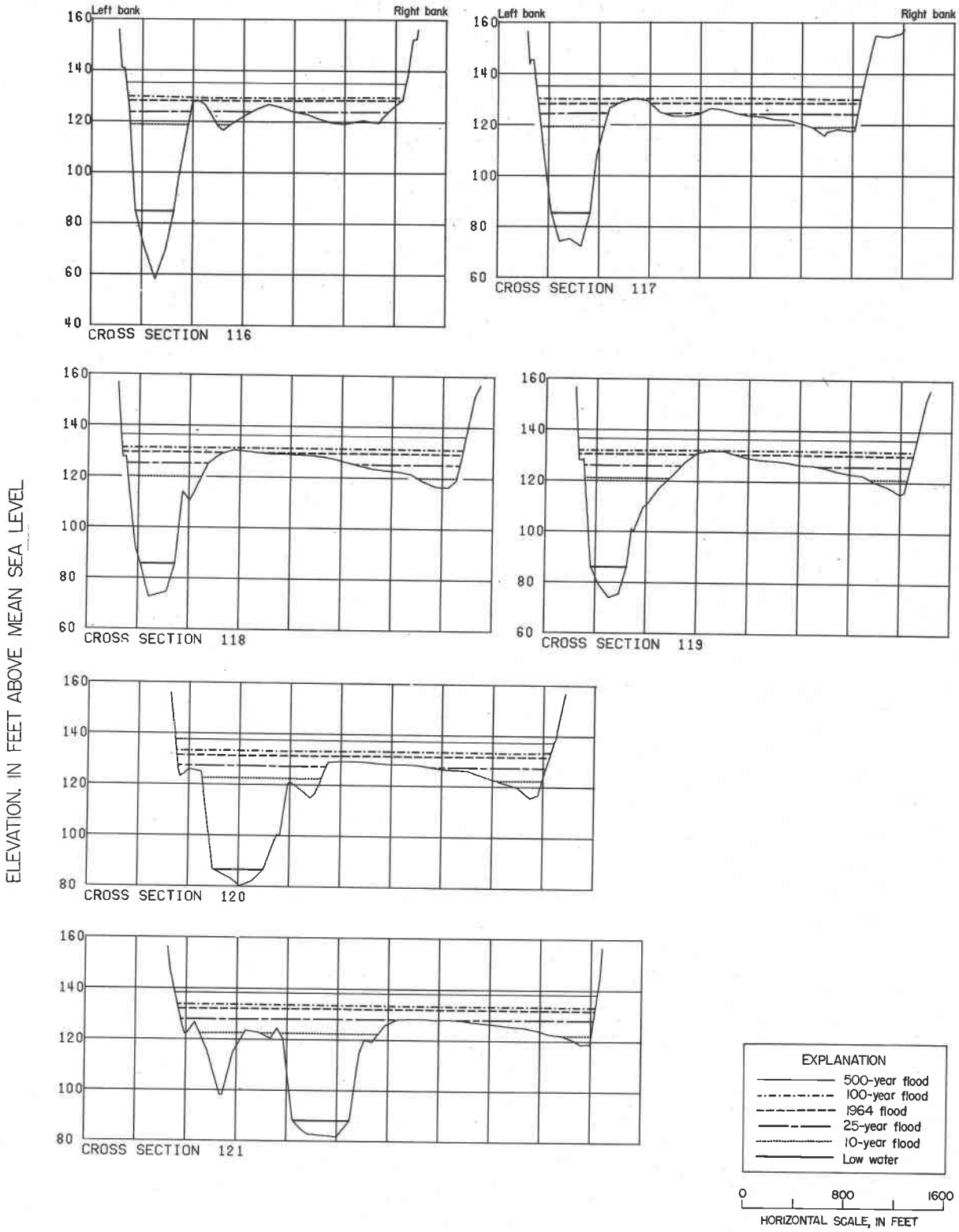

FIGURE 65.--Umpqua River cross-sections

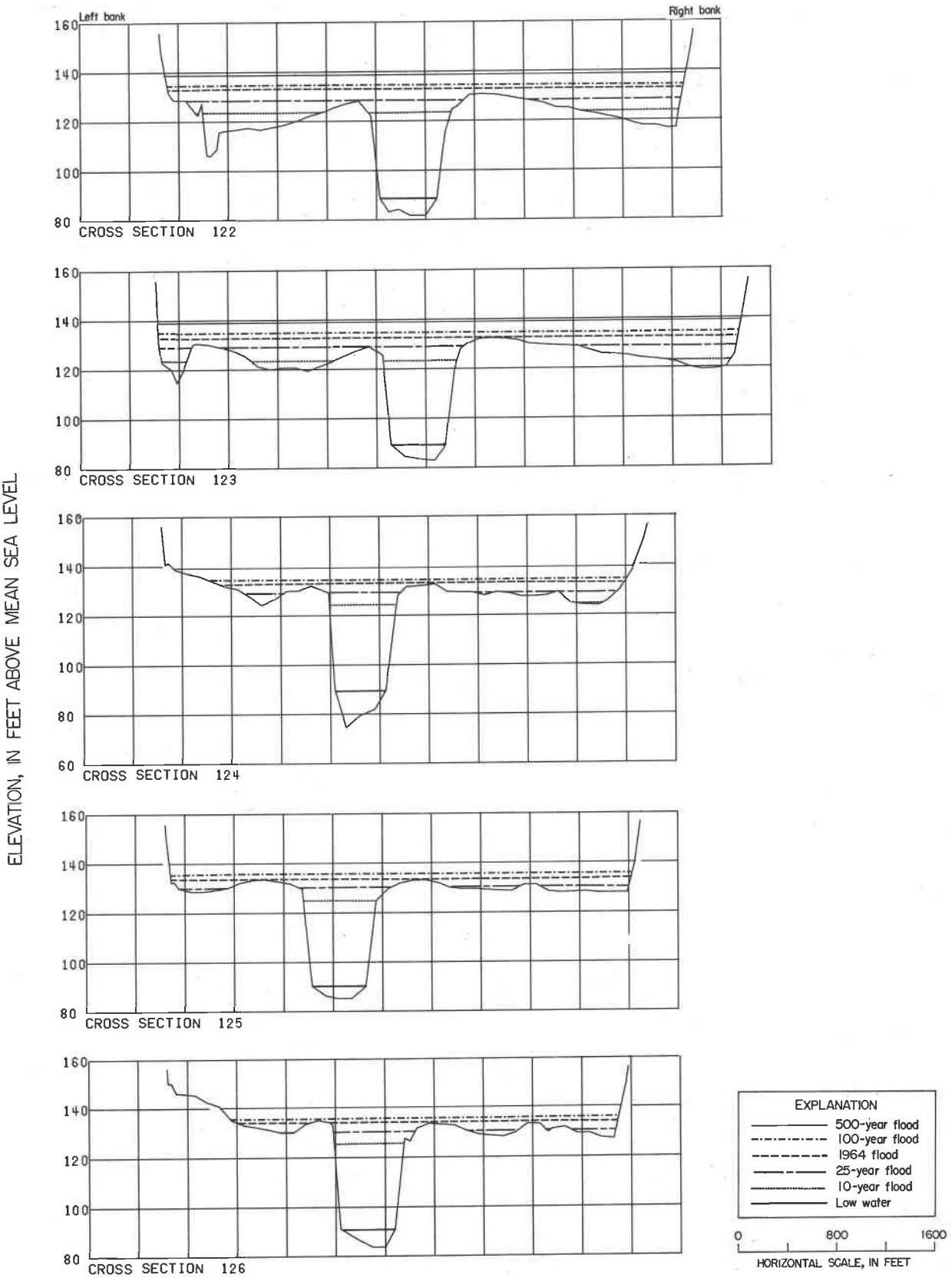

FIGURE 66.--Umpqua River cross-sections

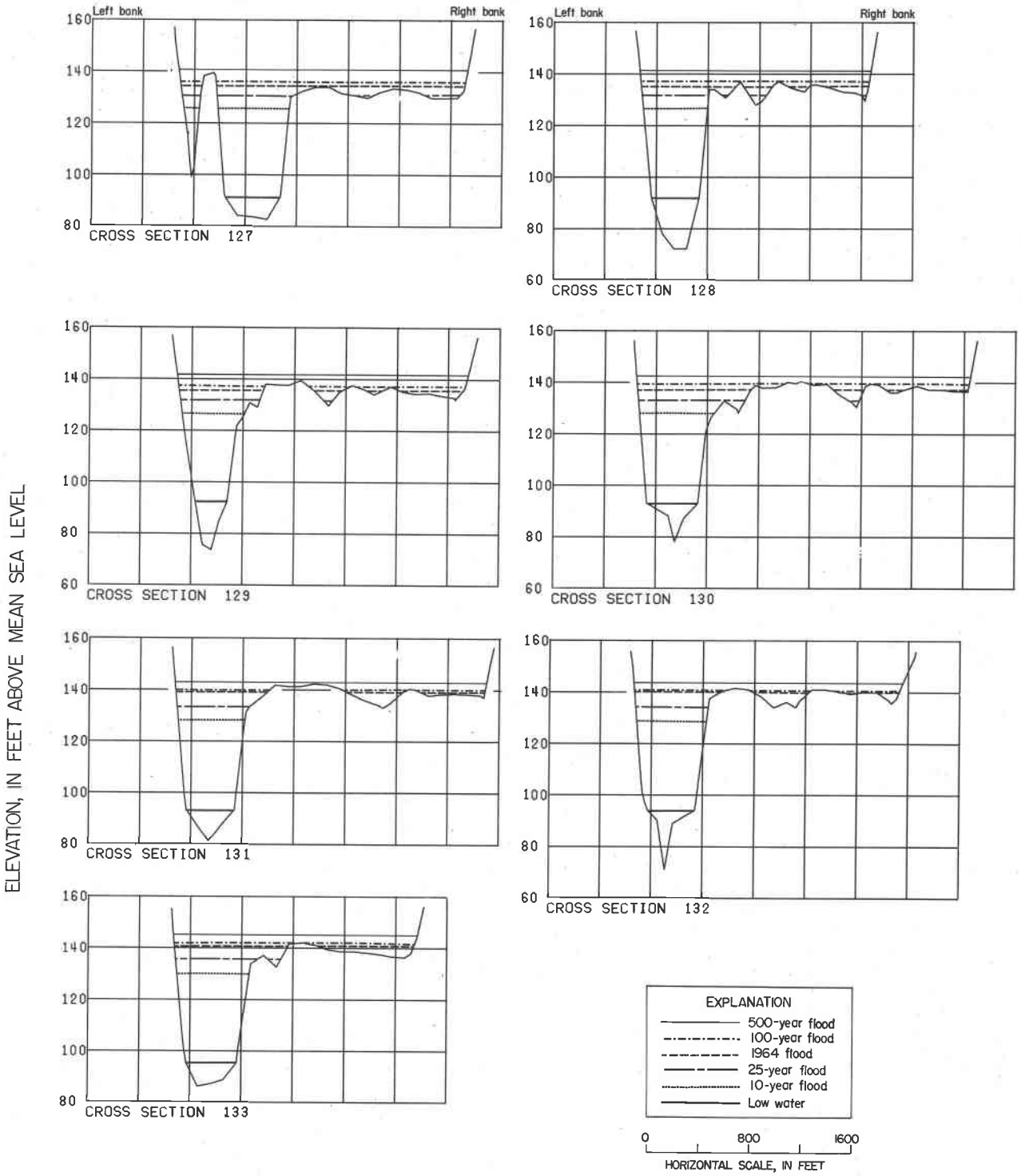

FIGURE 67.--Umpqua River cross-sections

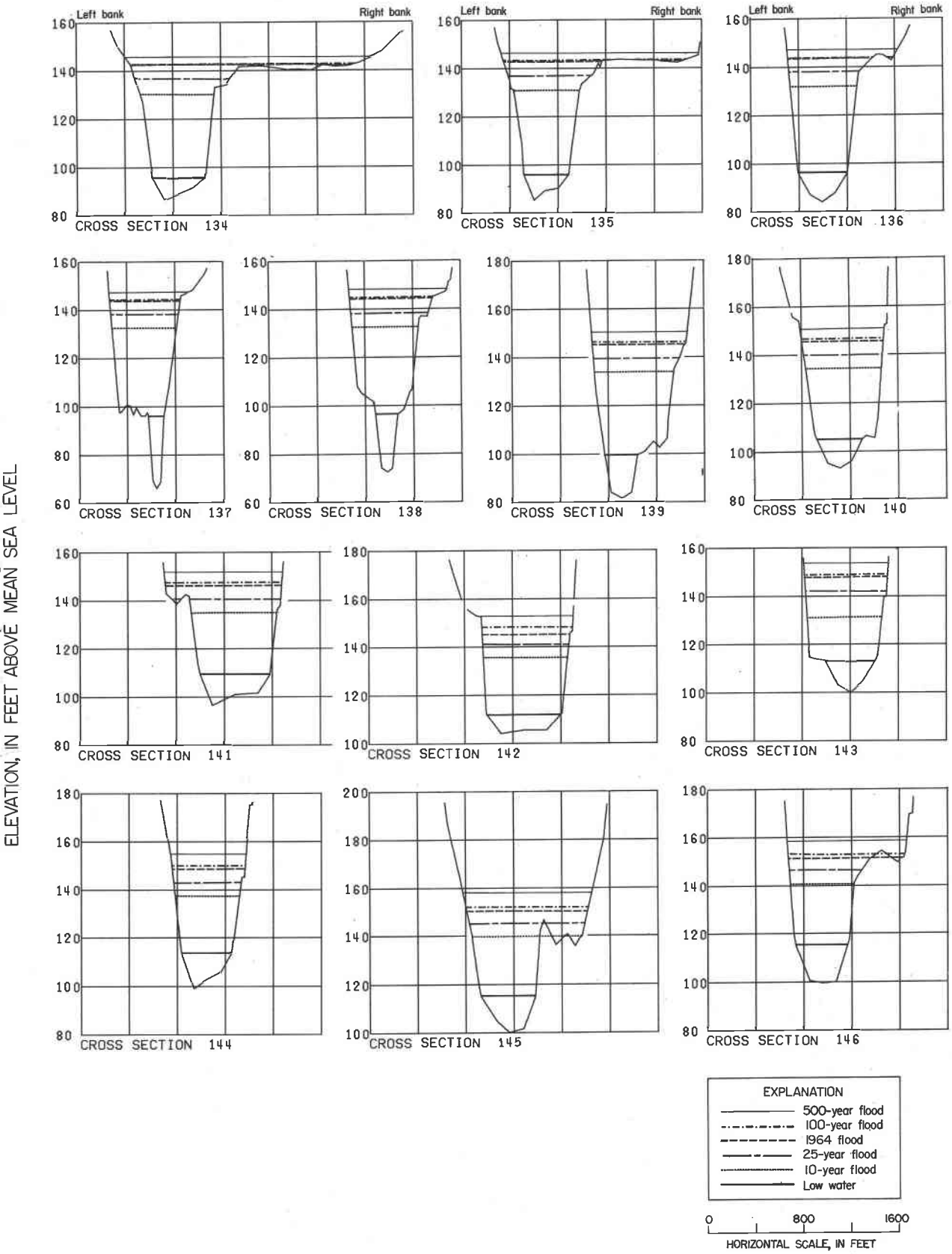

FIGURE 68.--Umpqua River cross-sections

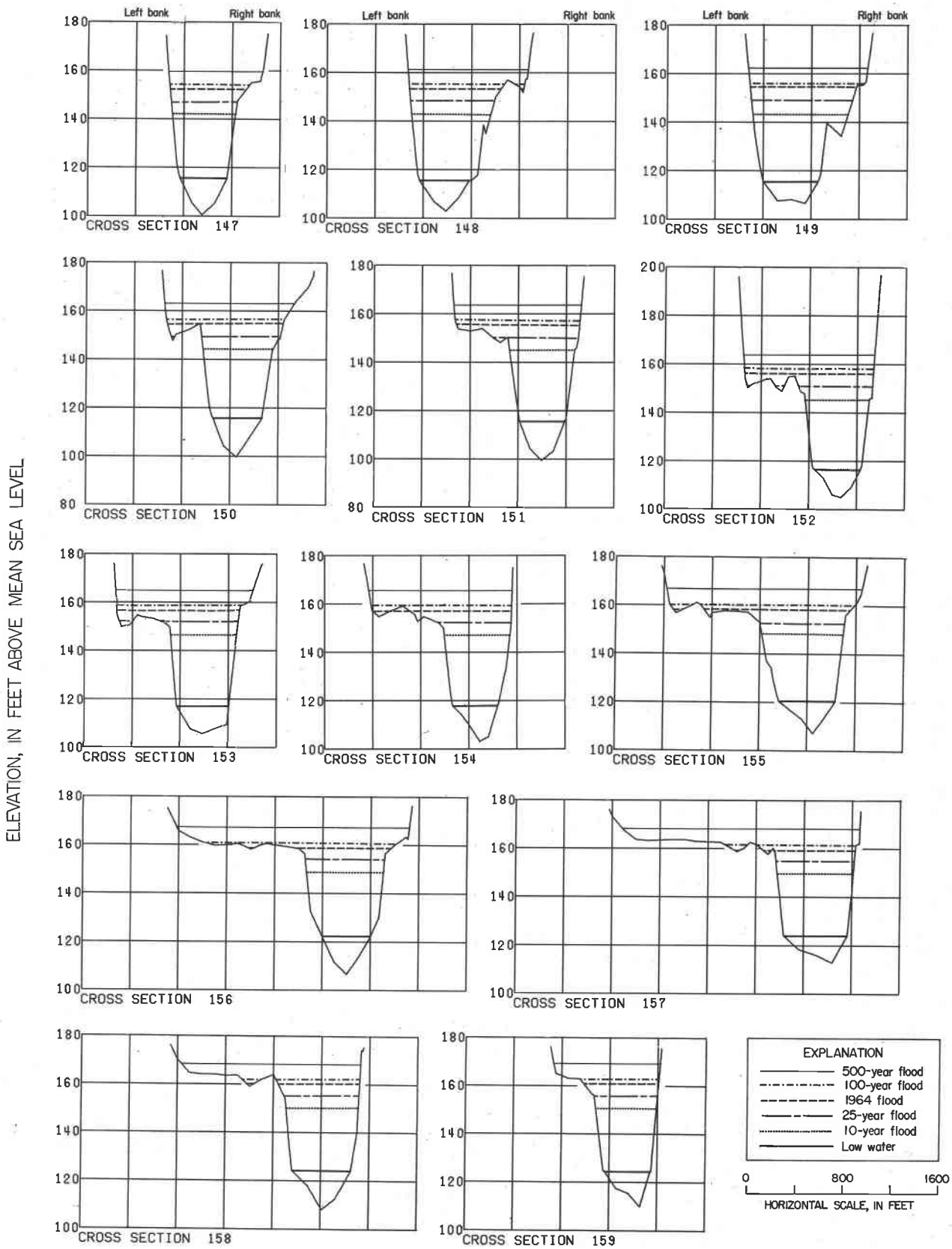

FIGURE 69.--Umpqua River cross-sections

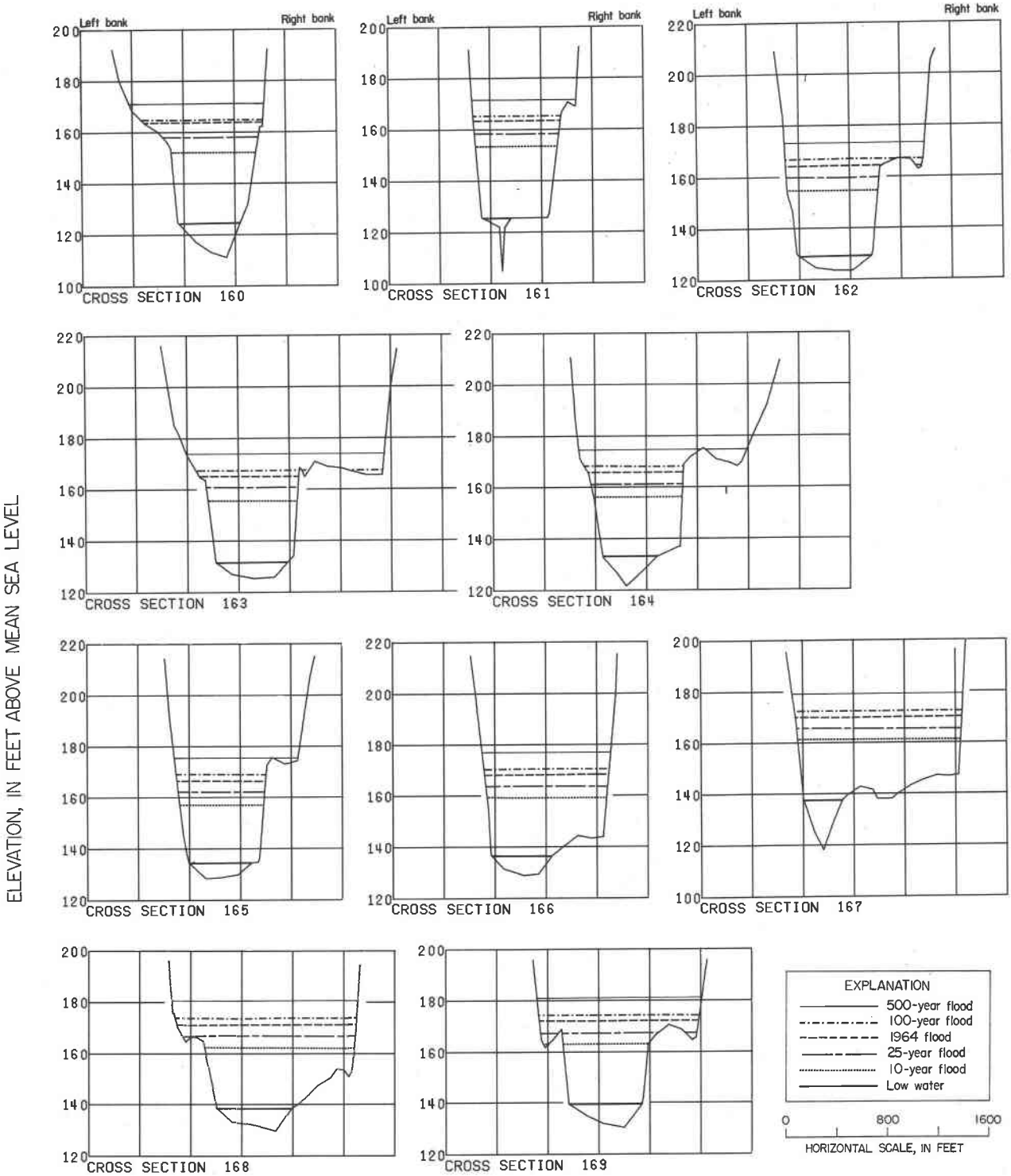

FIGURE 70.-- Umpqua River cross-sections

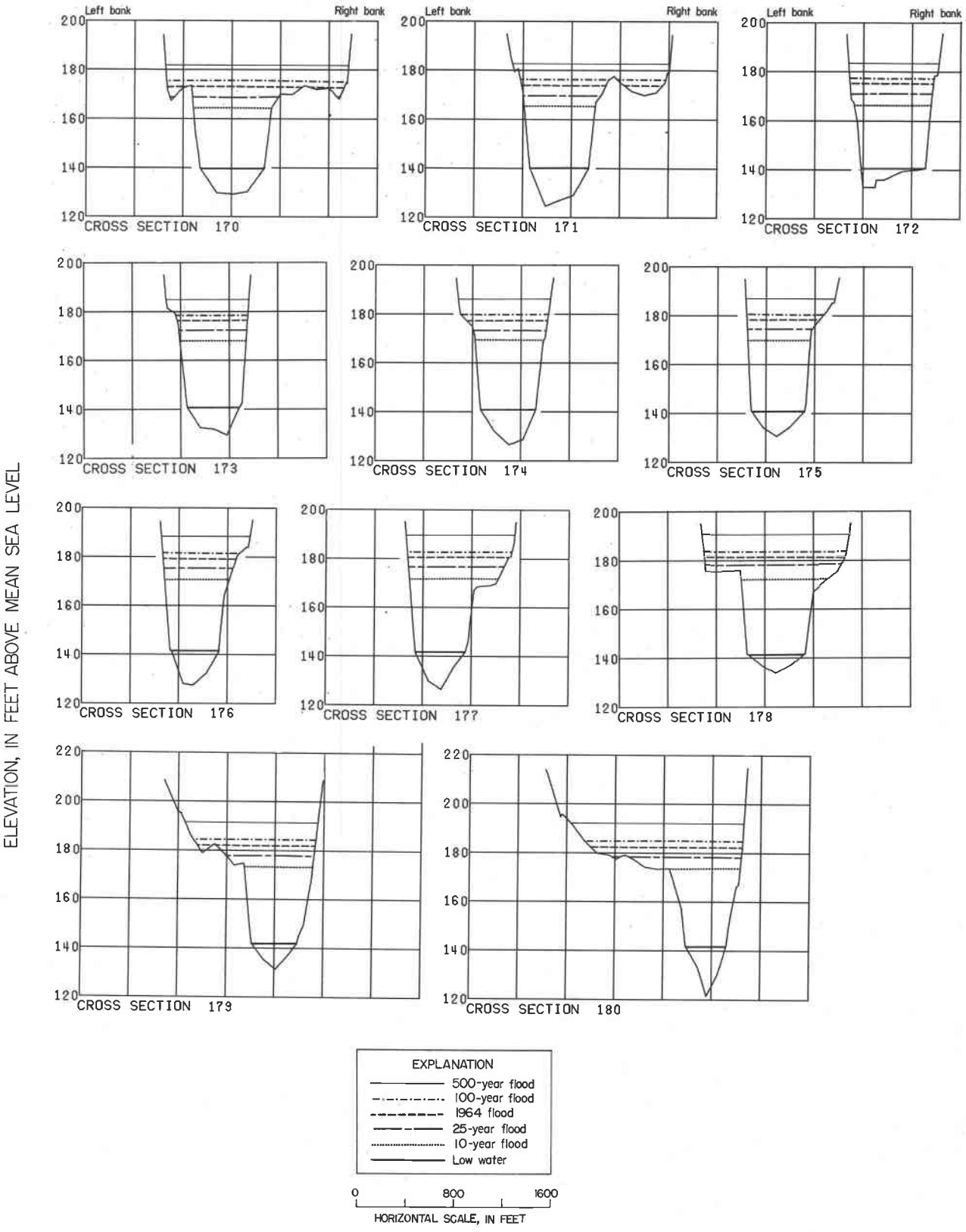

FIGURE 71.--Umpqua River cross-sections

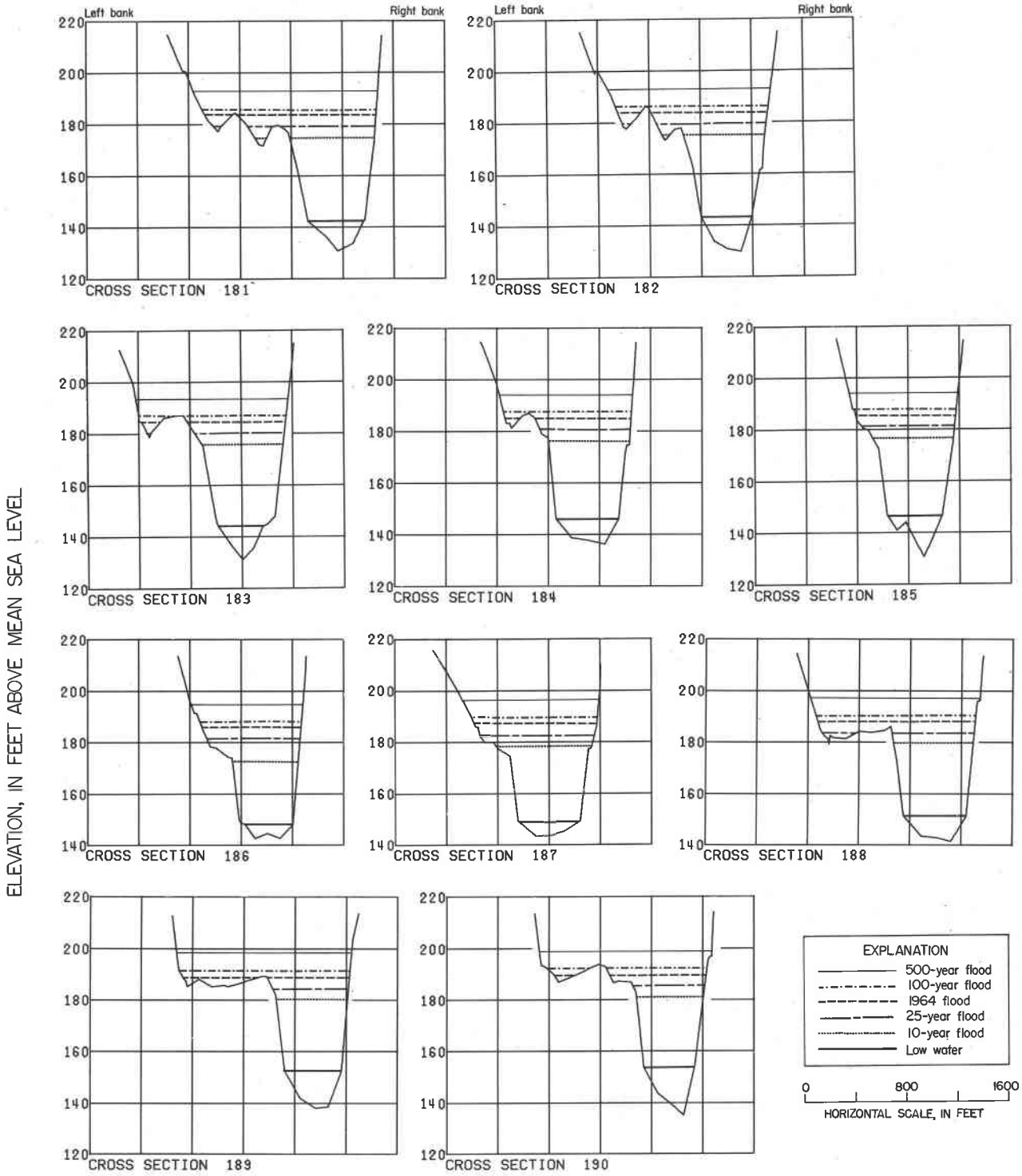

FIGURE 72.--Umpqua River cross-sections

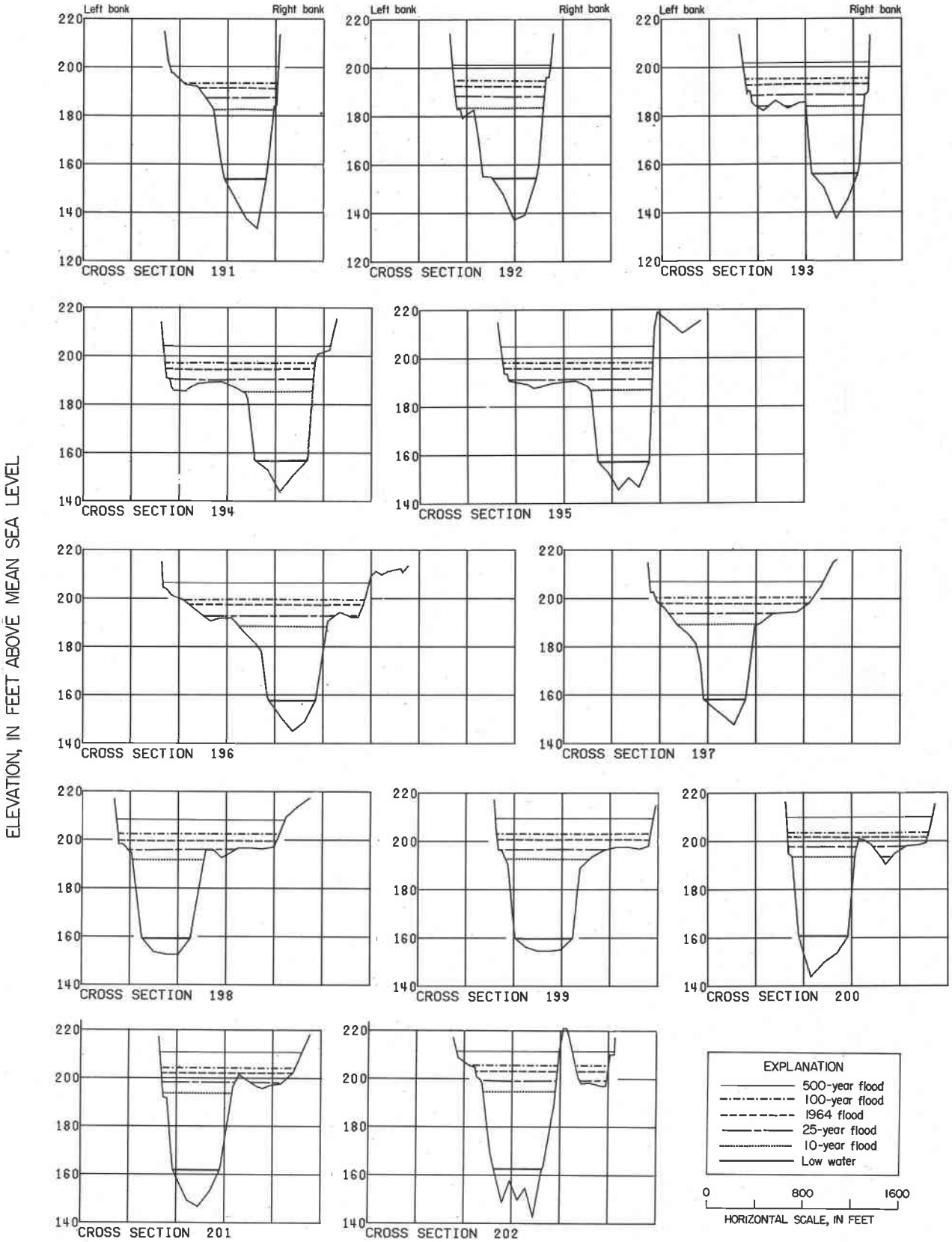

FIGURE 73.--Umpqua River cross-sections

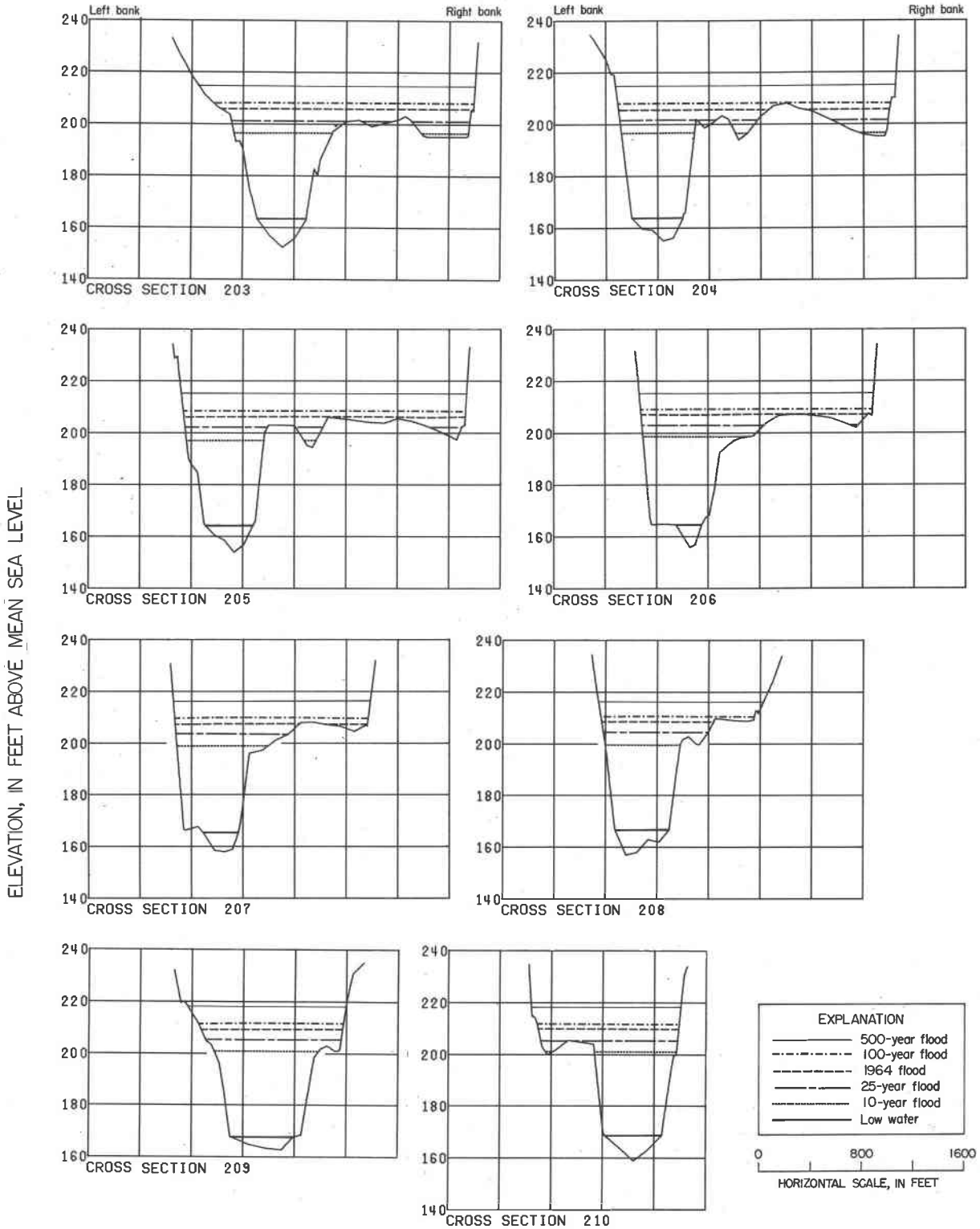

FIGURE 74.--Umpqua River cross-sections

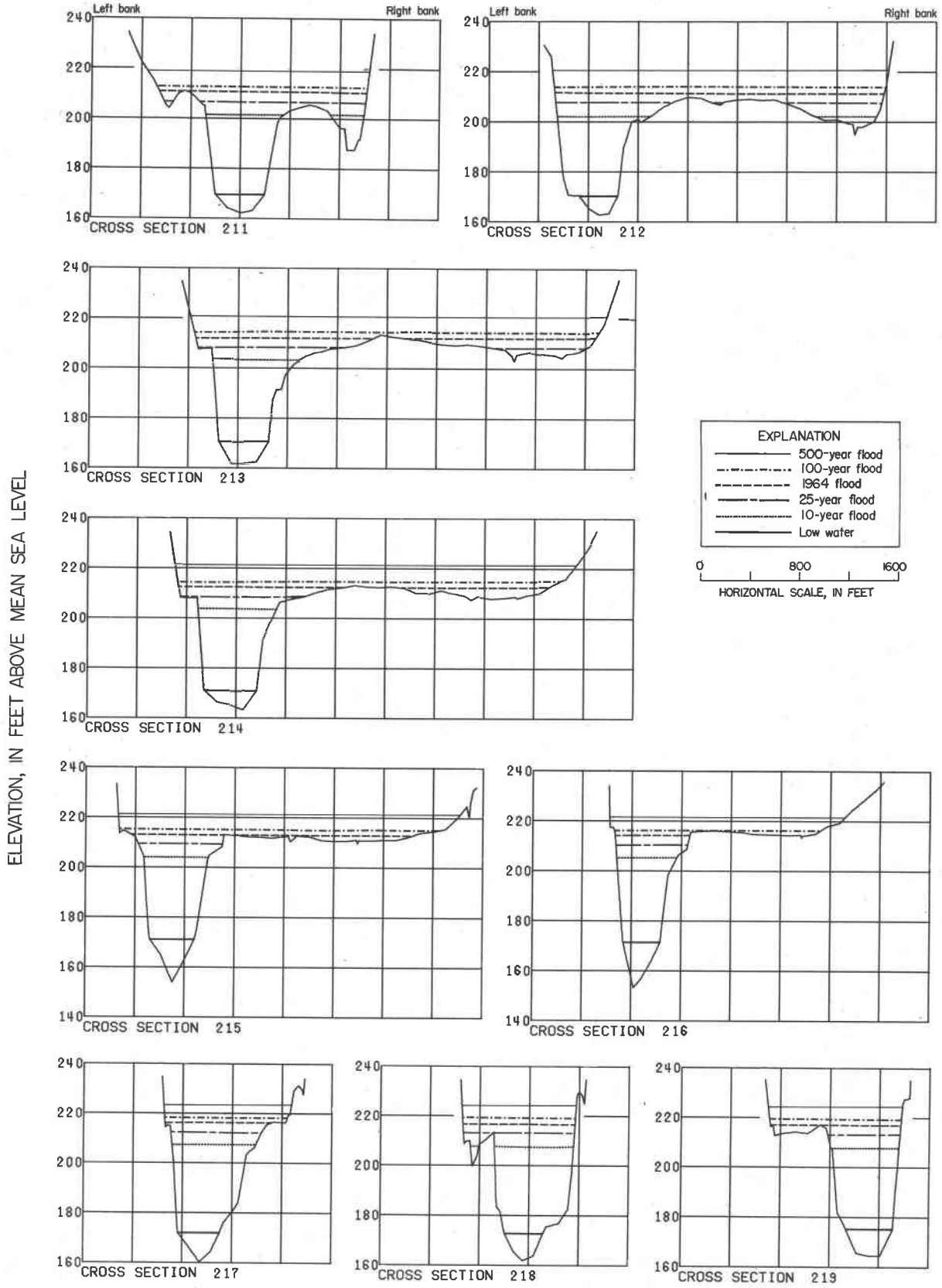

FIGURE 75.--Umpqua River cross-sections

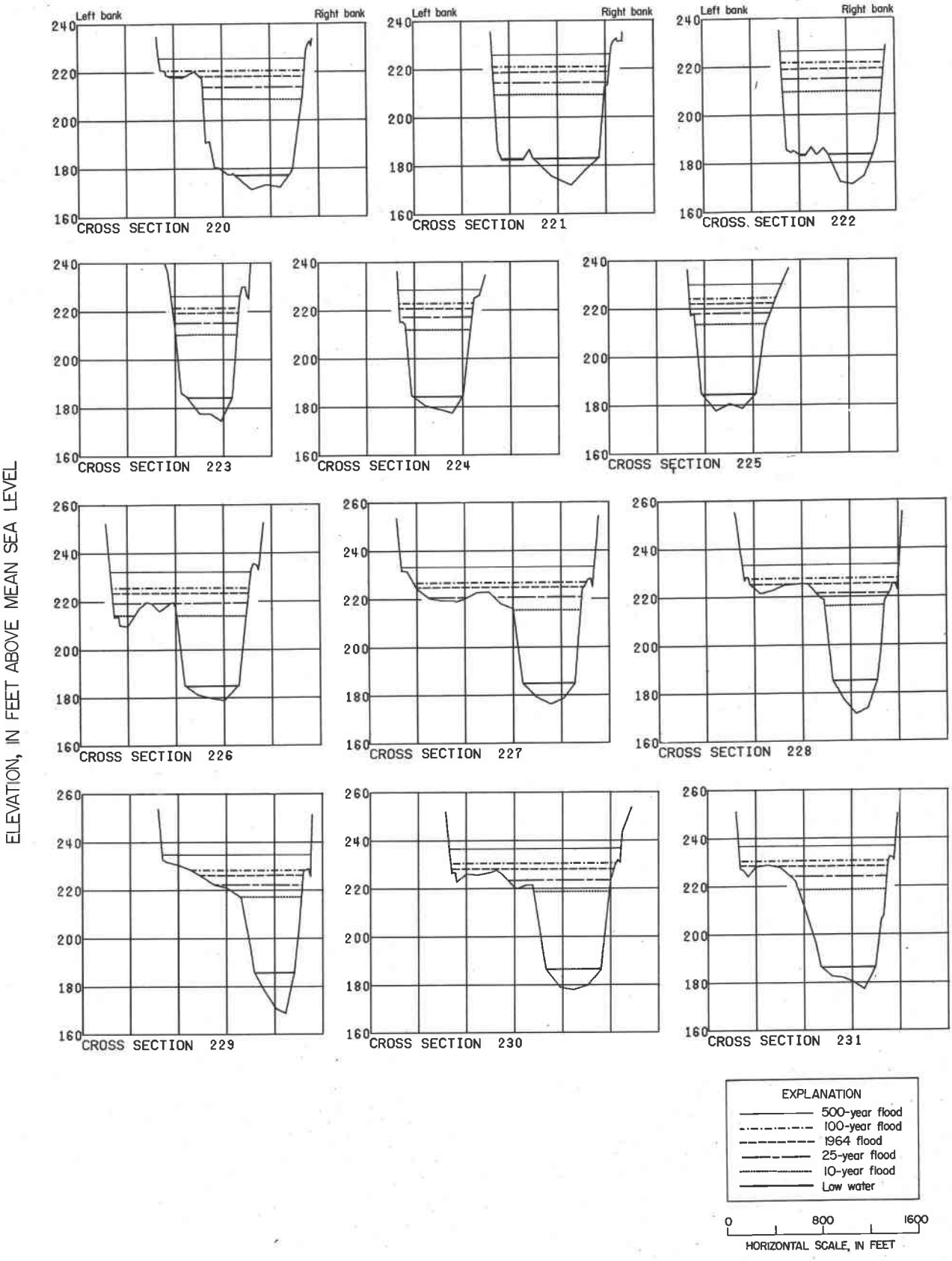

FIGURE 76.--Umpqua River cross-sections

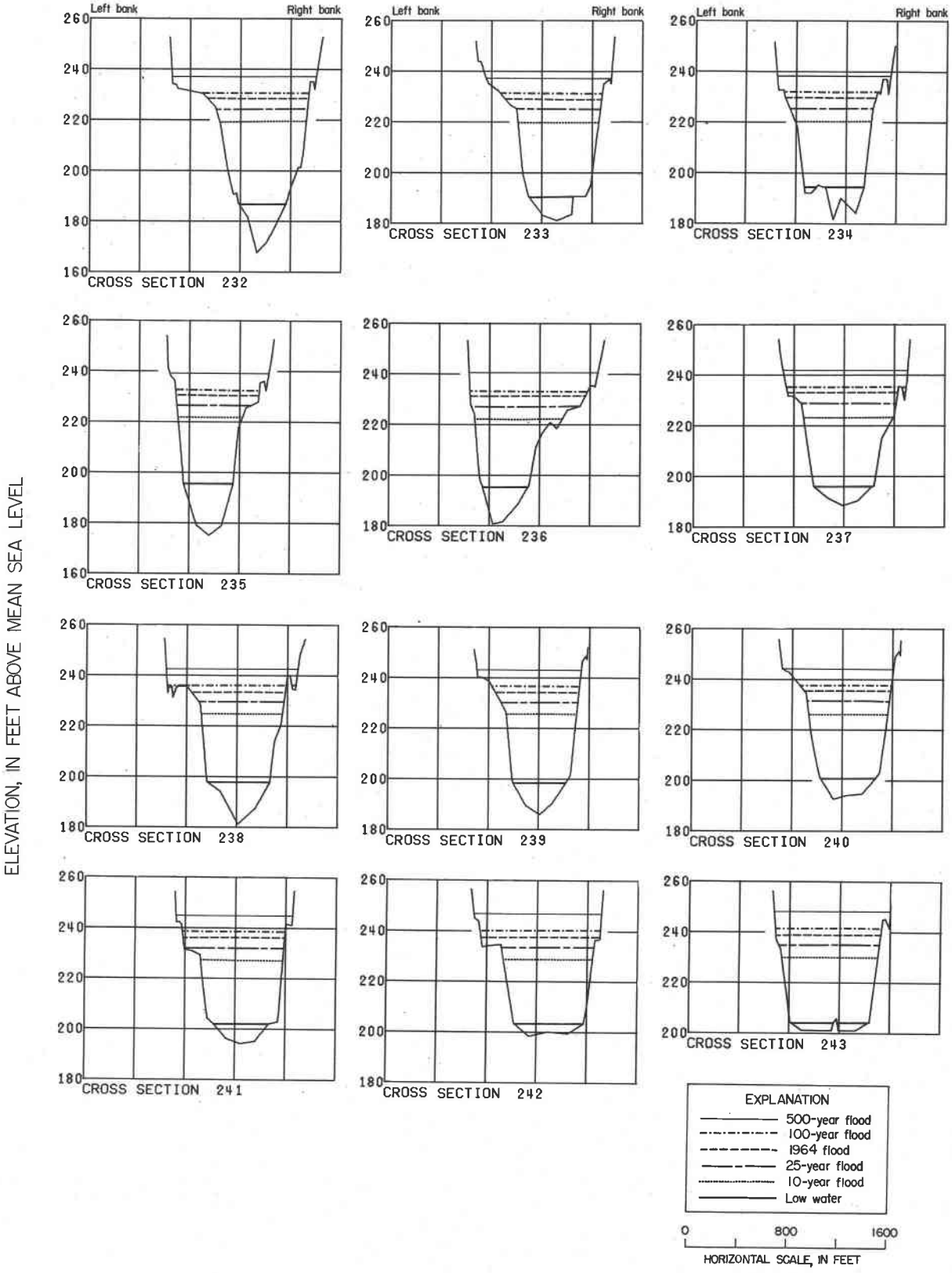

FIGURE 77.--Umpqua River cross-sections

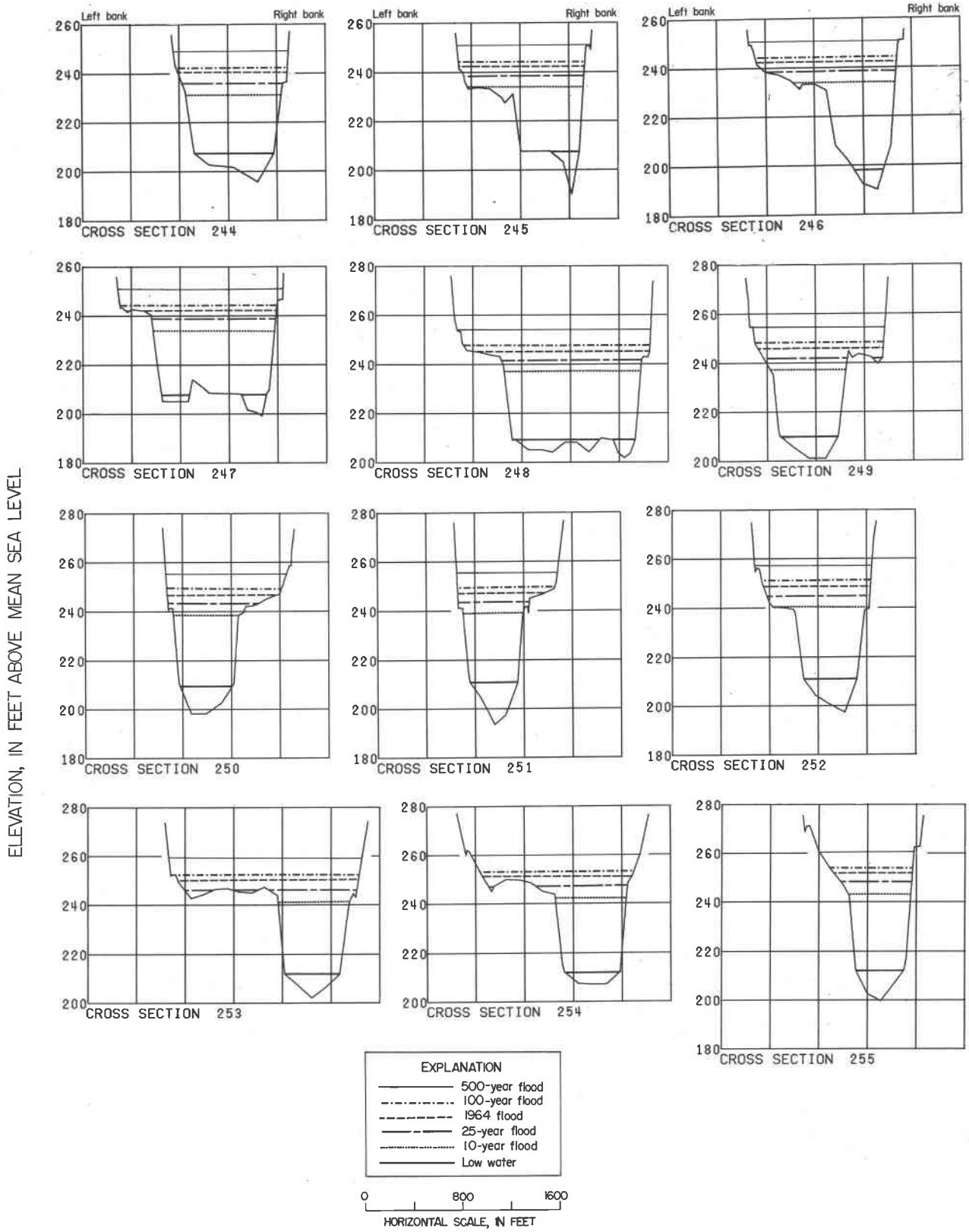

FIGURE 78.--Umpqua River cross-sections

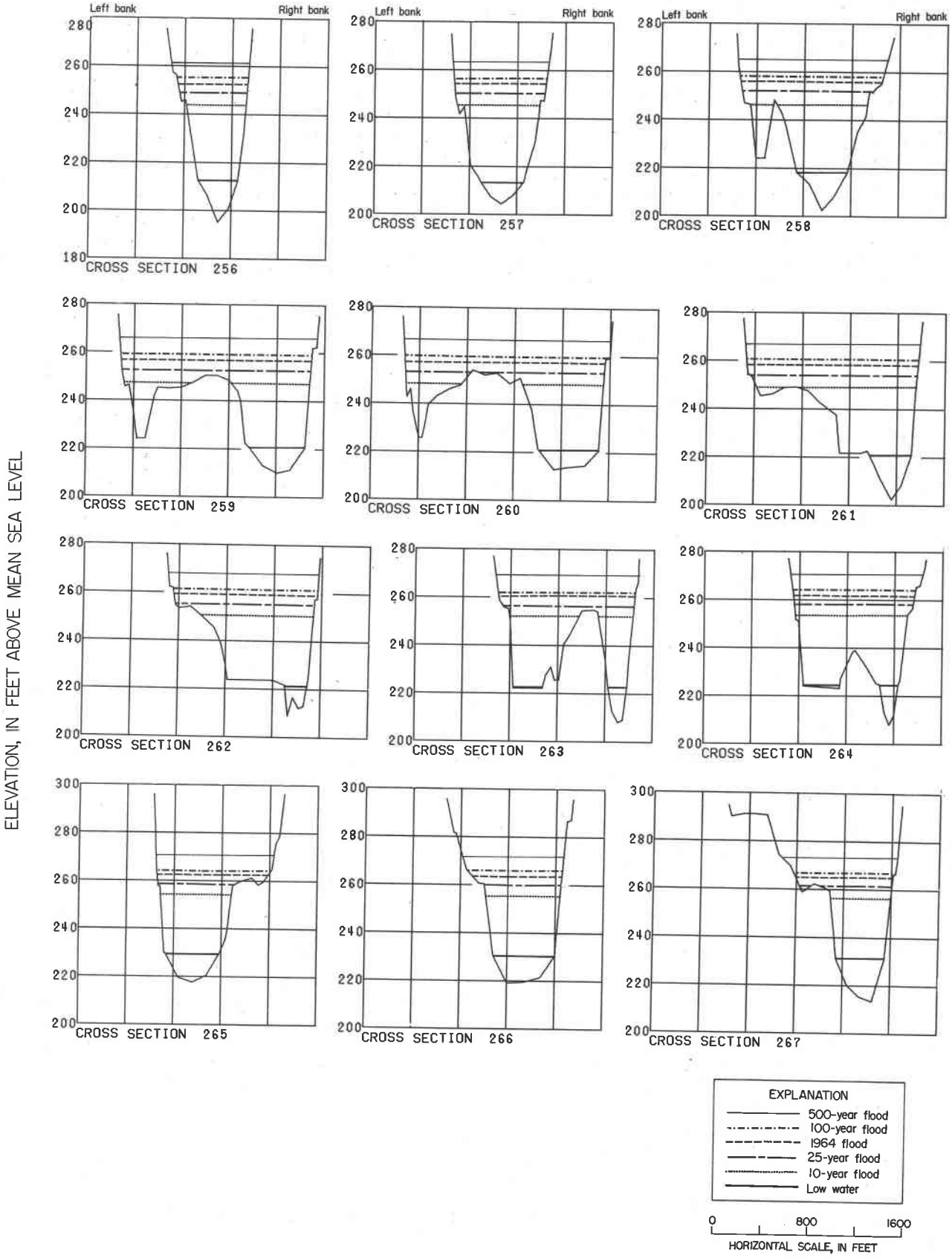

FIGURE 79.--Umpqua River cross-sections

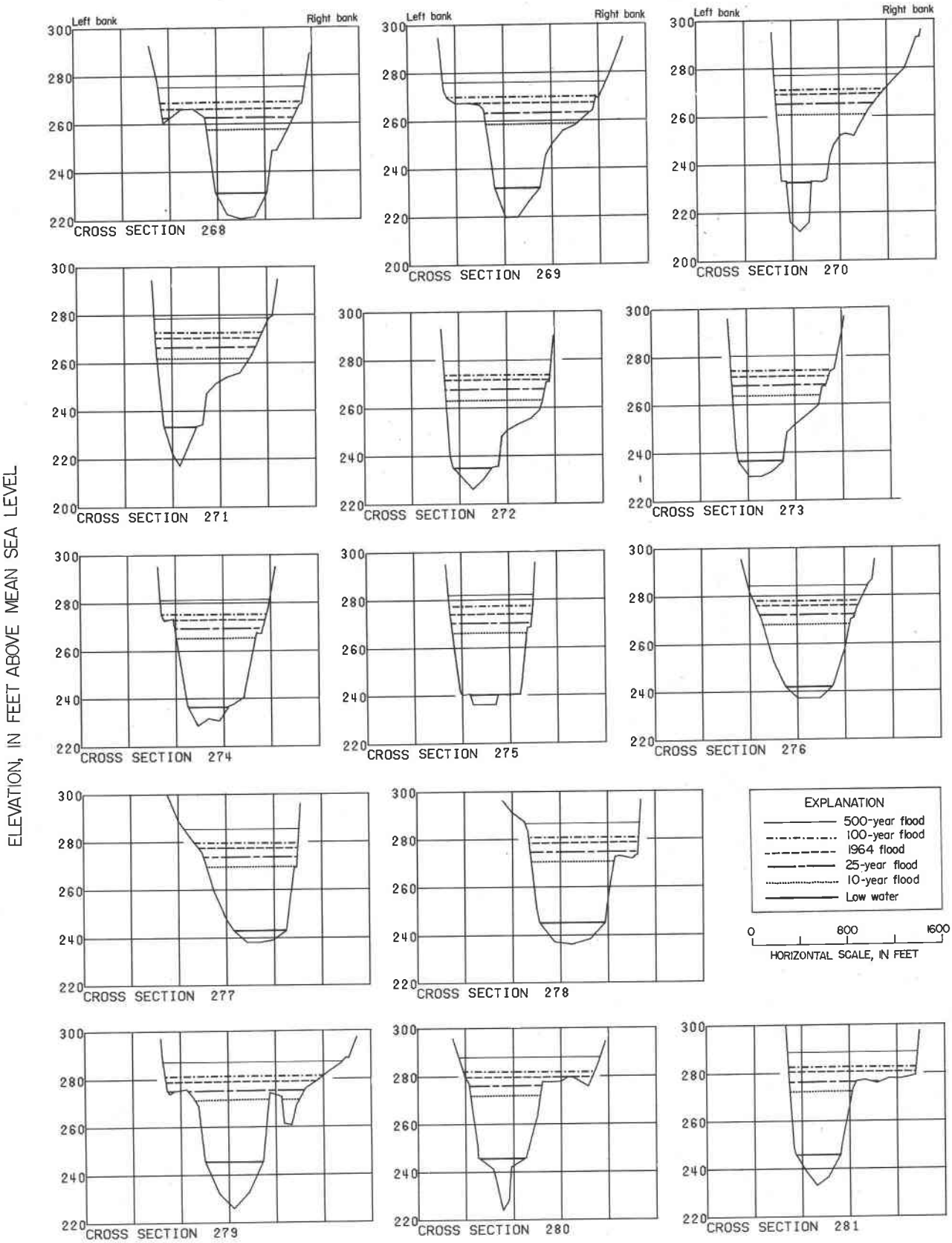

FIGURE 80.--Umpqua River cross-sections

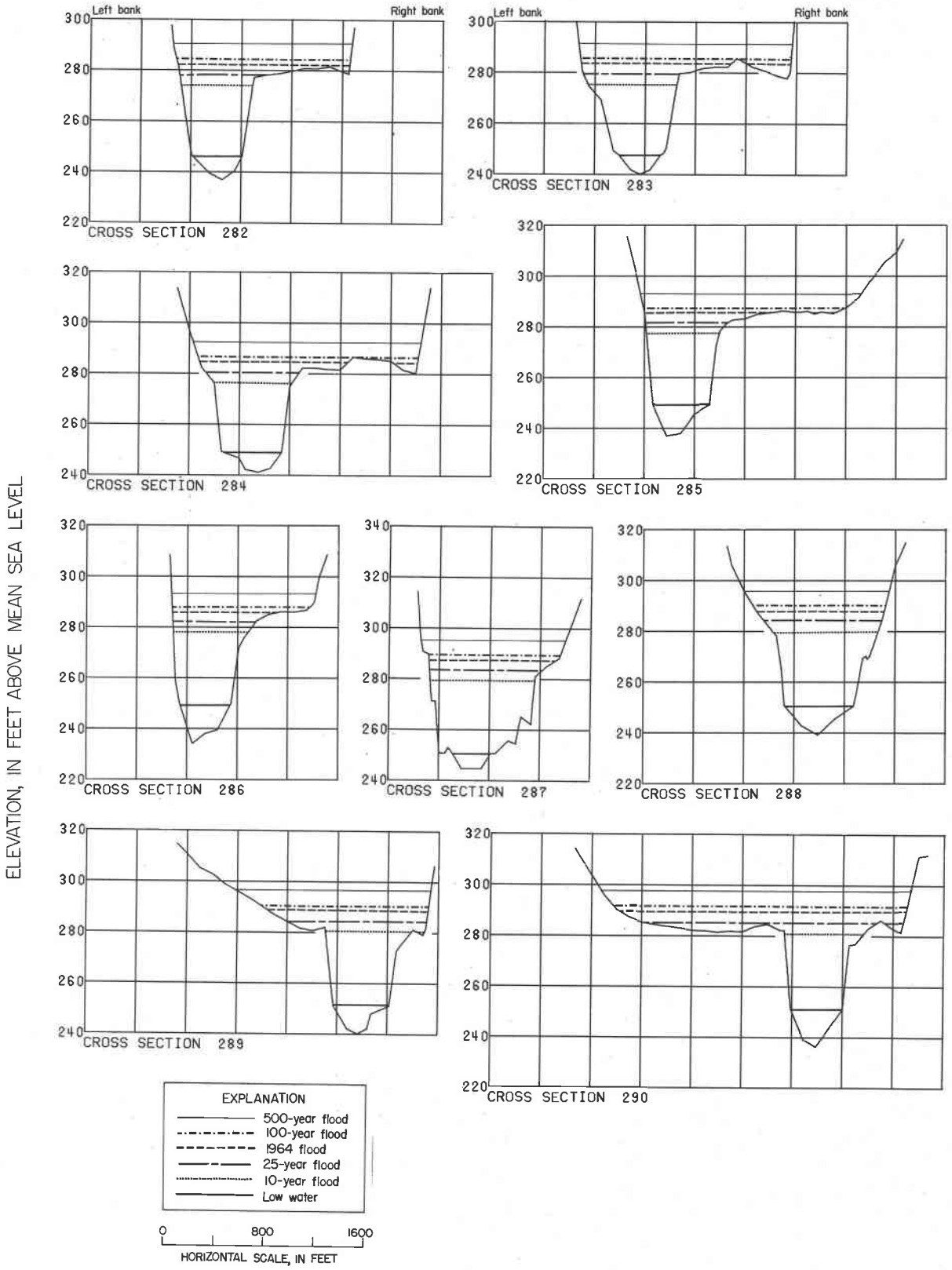

FIGURE 81.--Umpqua River cross-sections

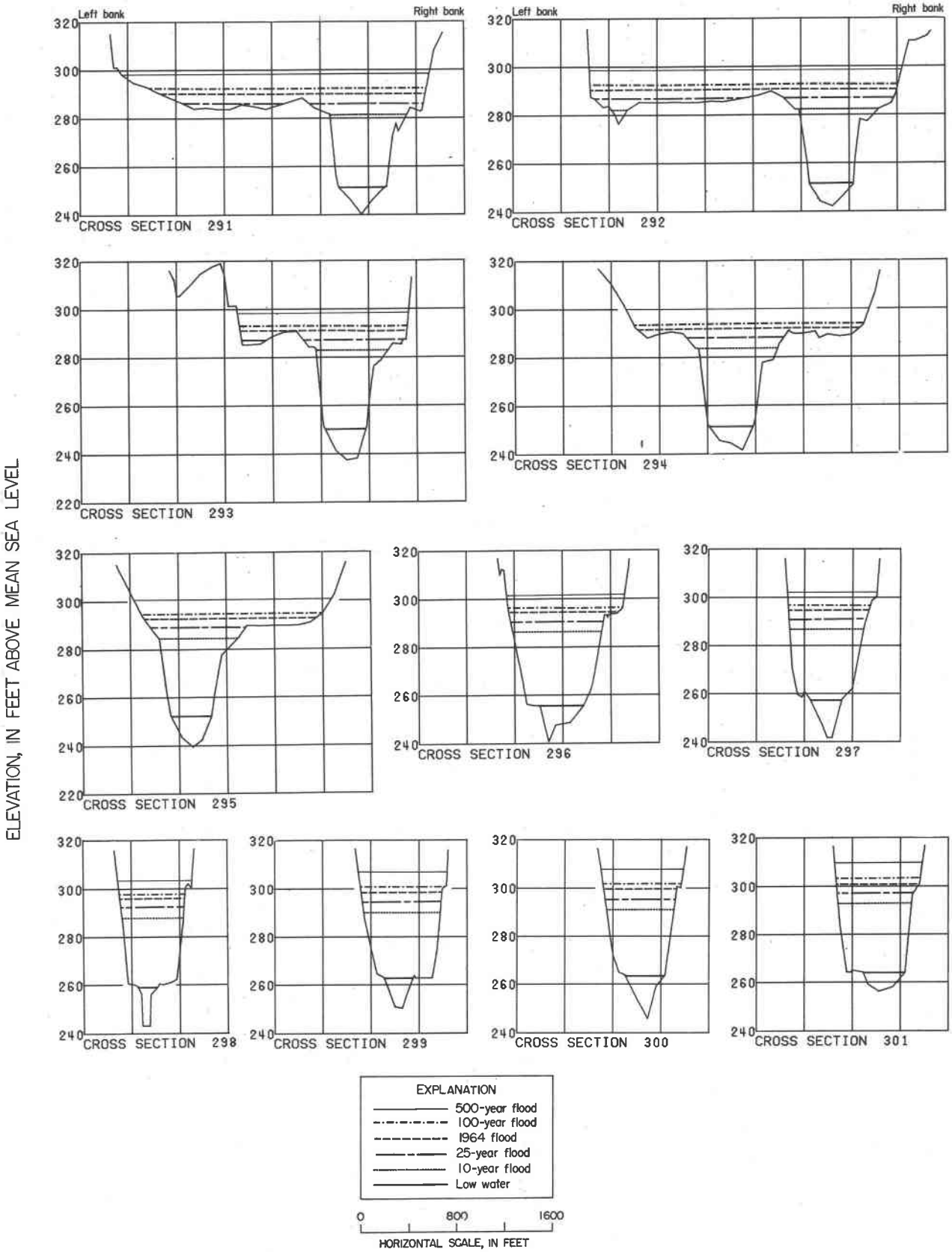

FIGURE 82.--Umpqua River cross-sections

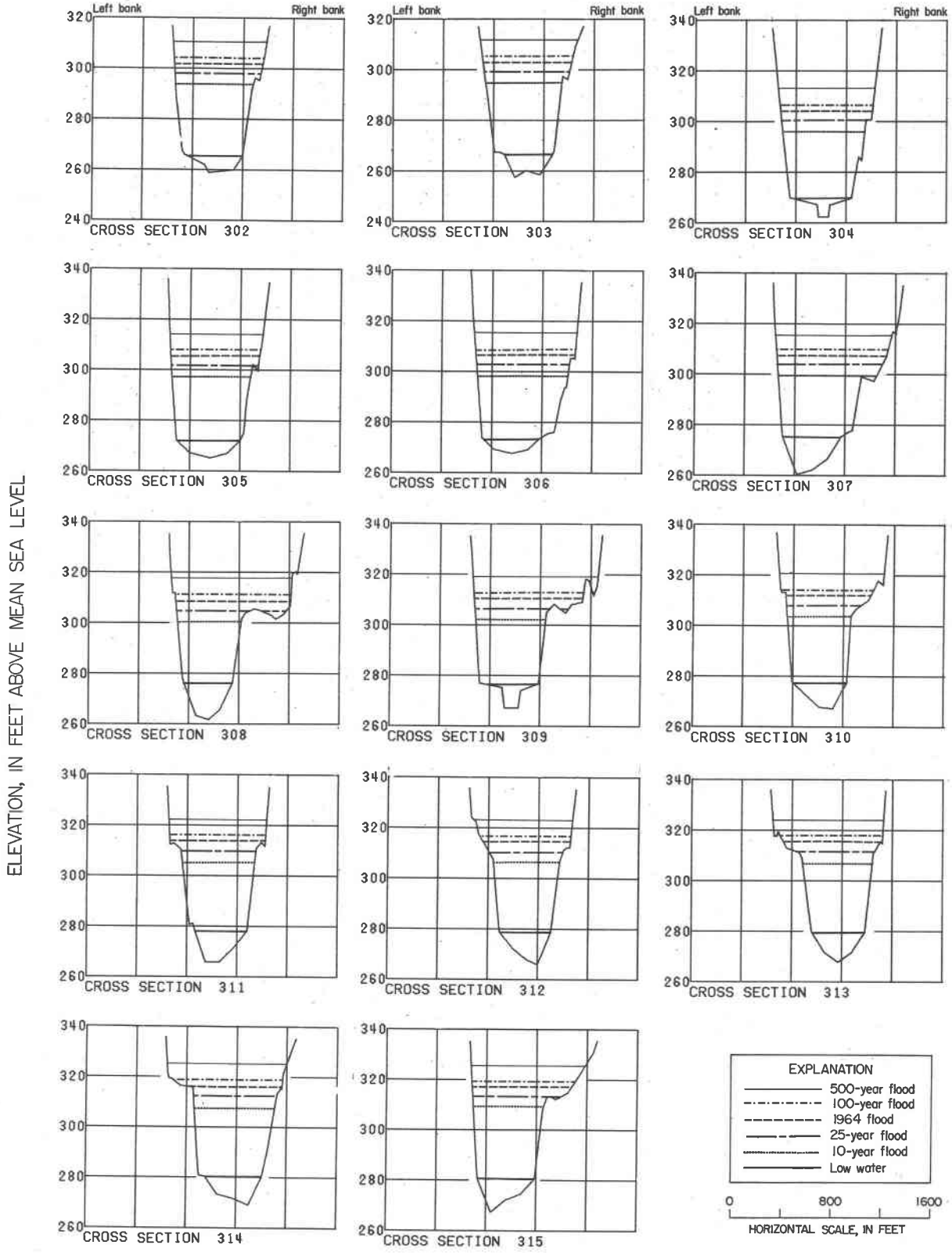

FIGURE 83.-- Umpqua River cross-sections

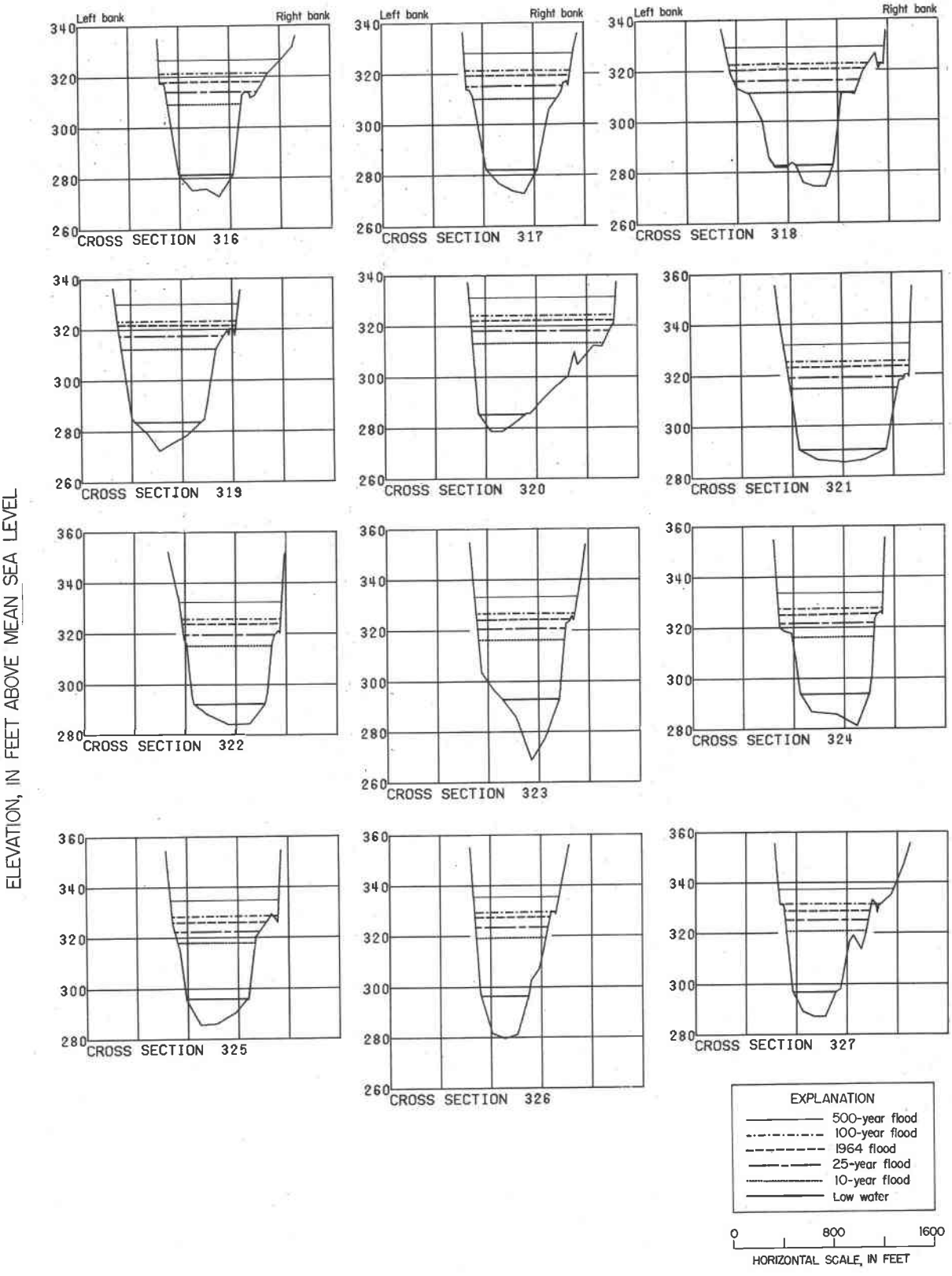

FIGURE 84.-- Umpqua River cross-sections

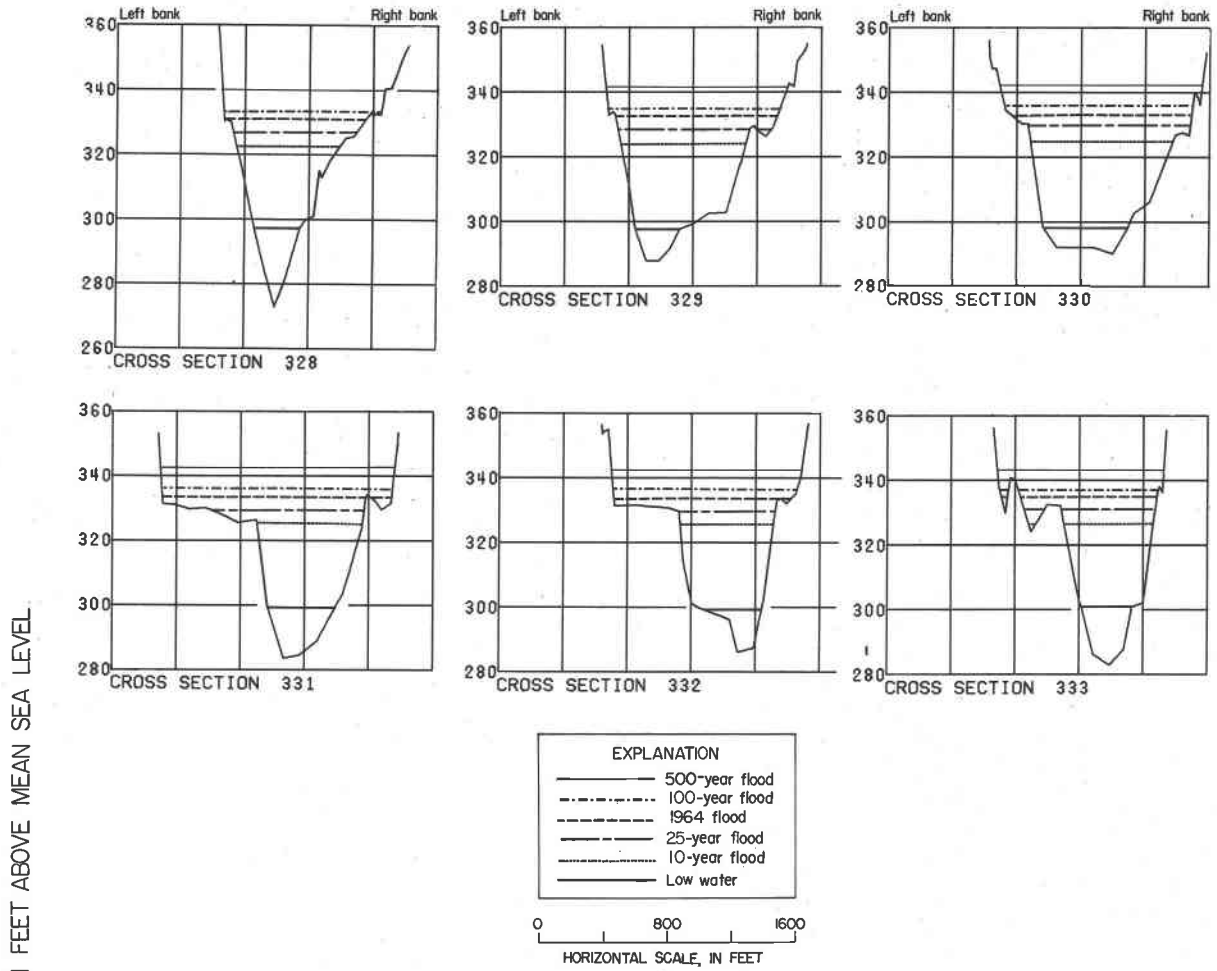

FIGURE 85.--Umpqua River cross-sections