

OPERATION AND MAINTENANCE MANUAL
FOR
TRUCKEE RIVER AND TRIBUTARIES
CALIFORNIA AND NEVADA



U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

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SECTION I

INTRODUCTION

1-01. Authorization. Interim channel improvement on the Truckee River and Tributaries, California and Nevada, for flood control purposes, was authorized by the Flood Control Act of 1954 (Public Law 780, 3 September 1954, Eighty-third Congress, Second Session) which reads in part as follows:

"The project for flood protection on Truckee River and Tributaries, California and Nevada, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in his report dated 15 April 1954, at an estimated cost of \$791,000: Provided, that the authorization for improvement for flood control on Truckee River, California and Nevada, contained herein shall not become effective unless and until the "Washoe Reclamation Project" on the Truckee and Carson Rivers, California and Nevada, shall have been authorized pursuant to law." The "Washoe Reclamation Project" was authorized by Public Law 858, Eighty-fourth Congress, Second Session, approved 1 August 1956.

1-02. Location. The Truckee River channel improvement project extends along the Truckee River at intermittent locations from the outlet facilities at Lake Tahoe and Tahoe City, California to its mouth at Pyramid Lake near Nixon, Nevada. Portions of the Truckee River meanders through the Counties of Placer, Nevada and Sierra, California; and Washoe and Storey Counties, Nevada. The Truckee River begins at the outlet located on the northwestern shore of Lake Tahoe, where an outlet structure is used to regulate the flow from the Lake into the river. From the Lake, the river flows in a northerly direction toward the town of Truckee, California; thence, northeasterly about 40 miles to the City of Reno, Nevada. Downstream from Reno the river flows about 60 miles easterly and northerly to discharge into Pyramid Lake. The project location is indicated on the vicinity map of Exhibit A-1.

1-03. Description of the Project Works. The project works covered by this manual include the following:

a. The enlarged channel of the Truckee River from the control structure at Lake Tahoe downstream a distance of about 3,200 feet. This includes fish spawning gravels and the fish pool a short distance downstream from the outlet structure.

b. The enlarged channel through the Truckee Meadows that extends for a distance of about 7.5 miles downstream from Reno.

c. Intermittent channel improvements downstream from about Vista to Nixon, Nevada.

d. Intermittent channel improvements downstream from Tahoe City, California to Reno, Nevada.

1-04. Protection Provided. The project provides partial protection for about 3,000 residents along the shore of Lake Tahoe and for about 2,000 acres of agricultural lands adjacent to the Truckee River. The Truckee Meadows feature of the improvement was designed to reduce the frequency and duration of flooding in the agricultural area of Truckee Meadows, and to improve drainage and sanitary conditions in the outskirts of Reno and Sparks, Nevada. The Lake Tahoe feature permits more rapid releases from the Lake during floods, thus alleviating damage to lakeshore properties. The outlet capacity is 2,500 cubic feet per second at Lake level of 6,228.0 feet and 3,300 cubic feet per second at Lake level of 6,229.1 feet. Through the Truckee Meadows reach the project design flow is 6,000 cubic feet per second.

1-05. Construction Data and Contractor. Construction required by the Corps of Engineers to improve the channel was accomplished under the following contracts:

a. Channel improvement, care and retention of fish and replacing of spawning gravel on the Truckee River immediately downstream from the outlet structure at Lake Tahoe was accomplished under Contract No. DA-04-167-CIVENG-60-77 by H. Earl Parker, Inc., during the period from 3 May 1960 to 30 June 1960.

b. Channel improvement, Truckee River, Station 0/00 to 379/00, in Washoe and Storey Counties, Nevada was accomplished under Contract No. DA-04-167-CIVENG-60-6 by Isbell Construction Company during the period from 3 August 1959 to 15 March 1960.

c. Clearing of the Truckee channel from Patrick to Wadsworth was accomplished by an equipment rental Contract No. DA-04-167-CIVENG-61-51 by Nevada Contractors, Inc. during the period from December 1960 to June 1961.

d. Clearing of the Truckee channel from Wadsworth to Pyramid Lake was accomplished by an equipment rental Contract No. DA-04-167-CIVENG-62-50 by Burchett and Good during the period from January 1962 to August 1962.

e. Clearing of the channel of the Truckee River in the vicinity of Verdi, Nevada was accomplished by an equipment rental Contract No. DA-04-167-CIVENG-63-55 by Burchett and Good during the period from January 1963 to April 1963.

f. Emergency channel restoration along the Truckee River between Reno and a point six miles downstream was accomplished by an equipment rental Contract No. DA-04-167-CIVENG-63-63 by Burchett and Good during the period from April 1963 to September 1963.

1-06. Flood Flows. For purposes of this manual, the term "flood" or "highwater period" for the Truckee River shall refer to flows when the water surface in the river reaches or exceeds the reading of 8.0 feet on the U.S.G.S. gage located on the left bank of the Truckee River near Farad, Nevada, 0.7 miles downstream from the Farad power plant. Also a reading of 8.0 feet on the U.S.G.S. gage located on the left bank of the Truckee River 400 feet downstream from the Kietzke Lane Bridge (1/2 miles East of Reno). Datum of the gage near Farad is 5,153.21 feet mean sea level and near Reno 4,431.97 feet above mean sea level.

SECTION II

LOCAL COOPERATION REQUIREMENTS

2-01. Requirements of Local Cooperation. House Document No. 497, Eighty-third Congress, Second Session, requires local interests to (a) construct, or otherwise provide at their own expense, suitable debris removal facilities at Derby Dam; (b) provide, without cost to the United States, all lands, easements, and rights-of-way necessary for the construction of the project, and undertake all road and utility relocations required therefore; (c) hold and save the United State free from damages due to the construction works; and (d) maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary of the Army; and provide further that such improvements, together with their associated costs and benefits, be considered a part of and be incorporated in any comprehensive plan of water-resource development which may be adopted for the basin in the future.

Due to the complexities of the area served and the interstate nature of the project, the following assurances were obtained:

- a. The State of California by Resolution No. 29^{*Water Commission.*} dated 14 February 1958 agreed to furnish the necessary assurances for that portion of the Truckee River that lies within the State of California.
- b. By letter dated 10 March 1958 the Washoe County Commissioners agreed to sponsor all portions of the Truckee River Project which lie in the State of Nevada, including that portion which lies in Storey County.
- c. By letter dated 18 March 1959 the Department of Conservation and Natural Resources of the State of Nevada gave the necessary local assurances for work on the Truckee River within the State of Nevada.
- d. The Pyramid Lake Tribe, by letters dated 7 June and 14 July 1961, provide local interest assurances for compensatory channel work on the tribal lands within the Pyramid Lake Indian Reservation.

2-02. Assurances Provided by Local Interests. Chapter 84, Statutes of 1958, First Extraordinary Session, which added Sections 12710, 12711, and 12712 to the State of California Water Code is quoted in part as follows:

"12710. The plan for channel improvements and appurtenant works for flood control on that portion of the Truckee River and tributaries within the State of California, is adopted and authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document No. 497, Eighty-third Congress, Second Session, - - - - .

12711. The department shall give assurances satisfactory to the Secretary of the Army - - - will be furnished by the State in connection with the plan for flood control adopted and authorized in Section 12710.

Section 3, Section 12712 is added to said code, to read:

12712. In conformance with the duty prescribed in Section 12642, it shall be the responsibility and duty of local public agencies, now existing or hereafter formed, including counties and public districts, affected by the plan for flood control adopted and authorized in Section 12710, to give assurances satisfactory to the Secretary of the Army and the department that such local public agencies will maintain and operate said flood control works after their completion and hold and save the State and the United States free from damage due to the construction and operation of said works."

By letter dated 18 March 1959 the State of Nevada, Department of Conservation and Natural Resources gave assurances that are quoted in part as follows:

"Pursuant to the authority contained in Chapter 143, 1959 Nevada Statutes, signed and effective 12 March 1959, assurances hereinafter set forth are given.

The Department of Conservation and Natural Resources, on behalf of the State of Nevada, hereby assures the United States that it will:

- (1) Construct, or otherwise provide at their own expense, suitable debris removal facilities at Derby Dam.
- (2) Provide, without cost to the United States, all lands, easements, and rights-of-way necessary for the construction of the project, and undertake all road utility relocations required therefor.
- (3) Hold and save the United States free from damages due to the construction work.
- (4) Maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary of the Army."

By letter dated 7 June 1961 the Pyramid Lake Paiute Tribal Council gave assurances quoted in part as follows:

"Pursuant to the authority contained in the Federal Charter Constitutions and By-Laws, under which the Pyramid Lake Tribe is organized, assurances hereinafter set forth are given the Pyramid Lake Tribal Council, on behalf of the Pyramid Lake Tribe, hereby assures the United States that it will within the limits of the Reservation:

- (1) Provide, without cost to the United States, a construction right-of-entry to all lands, easements, and rights-of-way necessary for the construction of the project, and undertake all road and utility relocations required therefor.
- (2) Hold and save the United States free from damages due to the construction works. - - - - -"

By letter dated 14 July 1961, provision 3 was revised to read as follows:

- (3) "Maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary of the Army. In the event said maintenance and operation involves payment of money by the Pyramid Lake Tribe in excess of \$500.00 in any one fiscal year, the advance approval of the Secretary of the Interior or his duly authorized representative will be obtained."

2-03 Acceptance by or Transfer to Local Interests.

Responsibility for operating and maintaining portions of the Truckee River Project have been officially accepted by the following agencies:

a. By letter dated 11 July 1960 the State of California Department of Water Resources accepted that part from station 0+71, just below the outlet structure, and extending downstream to station 31+24.19.

b. By letter dated 12 May 1960 the State of Nevada Department of Conservation and Natural Resources accepted that portion of the Truckee River from station 0+18 at Second Street Bridge and extending downstream to station 379+50.

c. By letter dated 20 April 1961 the State of Nevada Department of Conservation and Natural Resources accepted channel improvement and rectification at various locations between Reno and Wadsworth, Nevada.

50' BOTTOM
WADSWORTH

d. By letter dated 26 July 1962 clearing between Wadsworth and Nixon, Nevada at 29 locations was transferred to the Pyramid Lake Paiute Tribal Council.

e. By letter dated 26 July 1962 clearing of 3 sites below Wadsworth, Nevada was transferred to the State of Nevada.

f. By letter dated 16 October 1963 channel improvement and rectification on the Truckee River on three sites in the vicinity of the Peri property was accepted by the State of Nevada for operation and maintenance.

SECTION III

MAINTENANCE AND OPERATION - GENERAL PROCEDURE

3-01. Reference to Approved Regulations. This manual is submitted in accordance with provisions of Title 33 - Navigation and Navigable Waters, Chapter II, Corps of Engineers, Department of the Army, Part 208 - Flood Control Regulations, Maintenance and Operation of Flood Control Works, approved by the Secretary of the Army, 9 August 1944, and published in Federal Register, 17 August 1944, a copy of which is included as Exhibit A, Sheets 1 and 2.

3-02. Intent of Regulations. The general intent of the regulations approved by the Secretary of the Army is stated in paragraph 208.10(a)(1) as follows: "The structures and facilities constructed by the United States for local flood protection shall be continuously maintained in such a manner and operated at such times and for such periods as may be necessary to obtain the maximum benefits."

3-03. Purpose of this Manual. In view of the large number of local flood protection projects authorized by Congress and the repetitious nature of regulations to govern maintenance and operation of each individual project, and in order that local interests may be fully aware of the extent of the obligations assumed by them in furnishing assurances of local cooperation for projects to be constructed in the future, the general regulations described above were established by the Secretary of the Army. The general regulations approved by the Secretary of the Army, August 1944, were intended to be sufficiently broad in scope and general in nature as to be applicable to all flood protection projects for which such regulations are required by law.

Section 208.10(a)(10) of the regulations read as follows: "The Department of the Army will furnish local interests with an Operation and Maintenance Manual for each completed project, or separate useful part thereof, to assist them in carrying out their obligations under these regulations." This manual has, therefore, been prepared to furnish local interests with information on the project works and advice as to the details of the operation and maintenance requirements applicable to this particular project, and to state procedure required by the Department of the Army. The project works are to be maintained and operated in accordance with the Flood Control Regulations referred to above and interpretations thereof contained herein.

3-04. Definitions. As used hereinafter, the term "Superintendent" shall be defined to mean the person appointed by the local agency to be directly in charge of an organization which will be fully responsible for the continuous operation and inspection of the works located within the reach of the project accepted by that agency for operation and maintenance; the term "District Engineer" shall be defined to mean the District Engineer,

U. S. Army Engineer District, Sacramento, Corps of Engineers, or his authorized representative. The term "right bank" or "left bank" shall be defined to mean the right or left bank or side, respectively, of a stream or channel when facing downstream.

3-05. General Provisions of Regulations. In addition to that quoted in paragraph 3-02 above, the general provisions of the Flood Control Regulations, contained in paragraphs 208.10(a)(2) to 208.10(a)(8) are quoted in part as follows:

"(2) The State, political subdivision, thereof, or other responsible local agency, which furnished assurance that it will maintain and operate flood control works in accordance with regulations prescribed by the Secretary of the Army, as required by law, shall appoint a permanent committee consisting of, or headed by an official hereinafter called the "Superintendent", who shall be responsible for the development and maintenance of, and directly in charge of an organization responsible for the efficient operation and maintenance of all structures and facilities during flood periods and for continuous inspection and maintenance of the project works during periods of low water, all without cost to the United States.

- (4) No encroachment or trespass which will adversely affect the efficient operation or maintenance of the project works shall be permitted upon the rights-of-way of the protective facilities.
- (5) No improvement shall be passed over, under or through the walls, levees, improved channels or floodways, nor shall any excavation or construction be permitted within the limits of the project right-of-way, nor shall any change be made in any features of the works without prior determination by the District Engineer of the Department of the Army or his authorized representative that such improvements, excavation, construction, or alteration will not adversely affect the functioning of the protective facilities. Such improvements or alterations as may be found to be desirable shall be constructed in accordance with standard engineering practice. Advice regarding the effect of proposed improvements or alterations on the functioning of the project and information concerning methods of construction acceptable under

standard engineering practice shall be obtained from the District Engineer, or, if otherwise obtained, shall be submitted for his approval. Drawings or prints showing such improvements or alterations as finally constructed shall be furnished the District Engineer after completion of the works.

- (6) It shall be the duty of the Superintendent to submit a semi-annual report to the District Engineer covering inspection, maintenance, and operation of the protective works.
- (7) The District Engineer or his authorized representative shall have access at all times to all portions of the protective works.
- (8) Maintenance measures or repairs which the District Engineer deems necessary, shall be promptly taken or made.

3-06. Assistance to be Furnished by the District Engineer. The District Engineer will:

- a. Furnish to local interests "As Constructed" drawings of the project works at the time they are transferred.
- b. Make periodic inspections of the project works and notify local interests of any repairs or maintenance measures which the District Engineer deems necessary in addition to measures taken by the Superintendent.
- c. Submit to the Office, Chief of Engineers, all cases of noncompliance with full details thereof for determination of corrective measures to be taken.
- d. Make prior determination that any proposed encroachment, improvement, excavation, or construction within the right-of-way, or alteration of the project works, will not adversely affect the functioning of the channel, and to furnish the Superintendent with an approval thereof in writing.

3-07. Responsibilities of the Superintendent. In line with the provisions of the Flood Control Regulations, the general duties of the Superintendent include the following:

- a. Files and Records. The Superintendent shall maintain a file of reports, records, and drawings concerning the project works, readily available at all times to the District Engineer.

b. Encroachment or Trespass on Right-of-Way. In accordance with the provisions of Flood Control Regulations 208.10(a)(4), no encroachment or trespass which will adversely affect the efficient operation or maintenance of the project works shall be permitted on the rights-of-way for the protective facilities. The Superintendent will, therefore, cause notices to be posted at conspicuous places along the project right-of-way directing public attention to this regulation. The Superintendent shall arrange for the prosecution of offenders under local ordinances and report action taken.

c. Permits for Right-of-Entry or Use of Portion of Right-of-Way. Permits for temporary right-of-entry or use of portion of the right-of-way shall not be issued without prior determination by the local agency responsible for maintenance sufficiently in advance of issuance to permit adequate study and consideration and determination of conditions to be embodied in the permit document. See Exhibit G for sample permit of right-of-entry.

d. Permits for Improvements or Construction within the Project Right-of-Way. All requests for permits for construction of any nature within the limits of the project right-of-way shall be referred to the District Engineer for determination that such construction will not adversely affect the stability, safety, and functioning of the protective facilities, and for definition of conditions under which permit should be granted. These conditions will include, among others, the following items:

(1) That all work shall be performed:

(a) In accordance with standard engineering practice and in accordance with plans and specifications approved by the District Engineer or his authorized representative; drawings or prints of proposed improvements or alterations to the existing flood control works must be submitted for approval to the local agency responsible for maintenance sufficiently in advance of the proposed construction to permit adequate study and consideration of the work.

(b) To the satisfaction of the District Engineer.

(2) After completion of the work, "As Constructed" drawings or prints, in duplicate showing such improvements as finally constructed shall be furnished the District Engineer.

e. Maintenance.

- (1) Flood Control Regulations, paragraph 208.10(b)(1) are quoted in part as follows:

"(b)(1) Maintenance. The Superintendent shall provide at all times such maintenance as may be required to insure serviceability of the structures in time of flood. Measures shall be taken to provide for removal of wild growth and drift deposits, and repair of damage caused by erosion or other forces . . . Immediate steps will be taken to correct dangerous conditions disclosed by such inspections. Regular maintenance repair measures shall be accomplished during the appropriate season as scheduled by the Superintendent."

- (2) Full responsibility for making the repairs and the methods used is placed on the Superintendent, but the experience and facilities of the District Engineer will be available to him for advice and consultation.
- (3) All repairs shall be made in accordance with standard engineering practice, to line and grade and in accordance with details shown on the construction drawings for the project works, copies of which are included in Exhibit B. No change or alteration shall be made in any feature of the project works without prior determination by the District Engineer that such alteration will not adversely affect the stability and functioning of the protective facilities. Plans and specifications of all changes or alterations that may be proposed by the Superintendent shall be submitted to the District Engineer for investigation and approval before prosecution of the work.

f. Reports.

- (1) Semi-Annual Report. In accordance with the provisions of the Flood Control Regulations, paragraph 208.10 (a) (6), the Superintendent shall submit within a 10-day period following 1 December and 1 June of each year, a semi-annual report to the District Engineer covering inspection, maintenance, and operation of the protective works. This report will present a statement of:

- (a) The physical conditions of the protective works as summarized from the logs of inspection.
- (b) Flood behavior of the protective works, and flood-fighting activities during the period.
- (c) Prosecutions for encroachment or trespass.
- (d) Permits issued for right-of-way or use of right-of-way.
- (e) Permits issued for improvements or construction within the project right-of-way.
- (f) Maintenance measures taken; nature, date of construction, and date of removal of temporary repairs; date of permanent repairs.
- (g) Fiscal statement of cost and maintenance and operation for the period.

A suggested form for submission of the semi-annual report is included as Exhibit D, Sheets 1 and 2.

SECTION IV

FEATURES OF THE PROJECT SUBJECT TO REGULATIONS

4-01. Project Works. Construction along the Truckee River from the outlet structure at Lake Tahoe to Pyramid Lake, consists of intermittent channel improvement and some stone protection at various places through the Truckee Meadows. For further details see the drawings of Exhibit B and C.

4-02. Channels and Floodways.

a. Description. Channel improvement consists of enlarging (bottom width 50 feet) the Truckee River Channel for a distance of 3,200 feet downstream from the existing control structure at Lake Tahoe to provide a capacity of 3,300 cubic feet per second; enlarging (bottom width 80 feet) about 7.5 miles of the existing channel through Truckee Meadows downstream from the Second Street Bridge to provide a capacity of 6,000 cubic feet per second; and intermittent channel clearing at various locations between Lake Tahoe and Pyramid Lake. The total distance along the Truckee River is about 115 miles. Regulations regarding inspection, maintenance and operation of channels and floodways will be found in paragraphs 4-02 b, c, and d of this manual.

b. Inspection.

(1) Pertinent Requirements of the Code of Federal Regulations. Flood Control Regulations, Para. 208.10 (g)(1) are quoted in part as follows:

"(g) Channels and floodways (1) Maintenance. Periodic inspections of improved channels and floodways shall be made by the Superintendent to be certain that:

- (i) The channel or floodway is clear of debris, weeds, and wild growth;
- (ii) The channel or floodway is not being restricted by the depositing of waste materials, building of unauthorized structures or other encroachments;
- (iii) The capacity of the channel or floodway is not being reduced by the formation of shoals;

- (iv) Banks are not being damaged by rain or wave wash, and that no sloughing of banks has occurred;
- (v) Riprap sections and deflection dikes and walls are in good condition;
- (vi) Approach and egress channels adjacent to the improved channel or floodway are sufficiently clear of obstructions and debris to permit proper functioning of the project works.

Such inspections shall be made prior to the beginning of the flood season after each flood or high water and otherwise at intervals not to exceed 90 days. Immediate steps will be taken to remedy any adverse conditions disclosed by such inspections"

- (2) The purpose of the flood-flow channels inspection is to insure that conditions which affect the channel capacity will remain the same, as far as possible, as those considered in the design assumptions and that no new conditions develop that may affect the stability of the project structures. At each inspection required by Para. 208.10(g)(1) of the Flood Control Regulations, particular attention will, therefore, be given the following:
 - (a) Location, extent and size of vegetal growth.
 - (b) Unauthorized operations within the flood-flow channel right-of-way, such as excavations, buildings, and other structures, levees, bank protection, or training dikes.
 - (c) Rubbish and industrial waste disposal.
 - (d) Changes in the channel bed such as aggradation or degradation, which would interfere with free-flow from side drainage structures or induce local meanders that would scour the banks.
 - (e) Operations of any nature upstream from the project that would affect flow conditions within the limits of the flood control projects.

- (3) No excavation within the limits of this unit of the Truckee River Project will be permitted unless an excavation permit has been approved by the responsible local agency.
- (4) If any work is done to improve flow conditions in the Truckee River, it should be coordinated with the District Engineer to insure that proper provisions are made for channel alignment and capacity to conform to the existing project.
- (5) The intent of these inspections is to disclose all conditions which in any way affect the stability of the structures and their functioning for the control of floods. Each inspection report should note and comment on any repair measures that have been taken since the last inspection. In making these inspections, the check sheets included as Exhibit E shall be explicitly followed.

c. Maintenance.

- (1) Pertinent Requirements of the Code of Federal Regulations. Flood Control Regulations, Para. 208.10 (g)(1) are quoted in part as follows:

". . . . Immediate steps will be taken to remedy any adverse conditions disclosed by such inspection . . ."
- (2) Shoaling or aggradation at the inlets or outlets of side drainage structures may render them inoperative. It is, therefore, imperative that all drains be kept open and unobstructed at all times.
- (3) Dumped rock or other suitable types of protection should be placed at locations found by experience to be critical trouble points, with a view to stabilizing the channel alignment and preserving the general uniformity of the bank lines.
- (4) Sediment and debris plugs or other obstructions should be removed from the channel to prevent any tendency for the flows to be deflected within the channel. The heavy material likely to accumulate in the new channel at the mouths of tributaries should be removed to keep the channel clear.

- (5) The channel and right-of-way shall be kept reasonably clear of debris, refuse matter, or industrial wastes.
- (6) Weeds and other vegetal growth in the channel shall be cut in advance of flood season and together with all debris, removed from the channel.

d. Operation.

- (1) Pertinent Requirements of the Code of Federal Regulations, Para. 208.10(g)(2) are quoted in part as follows:

"(g) Channels and floodways (2) Operation. Both banks of the channel shall be patrolled during periods of high water Appropriate measures shall be taken to prevent the formation of jams of debris. Large objects which become lodged against the bank shall be removed. The improved channel or floodway shall be thoroughly inspected immediately following each major high water period. As soon as practicable thereafter all snags and other debris shall be removed and all damage to walls, drainage outlets or other flood control structures repaired."

4-03. Special Instructions. Due to the fact that some of the banks have been constructed with stone protection, the provisions of paragraph 4-02 b (vi) are expanded to include the following:

a. Where scour, wash, settlement or failure of a portion of the originally provided stone protection has been noted, or where inspection indicates that such damage may result during the next flood or high water period, the scour or wash shall be filled with earth free from brush, roots, sod or other unsuitable material and stone shall be placed upon the earth fill to bring the stone protection to its original section. In case of emergency and when stone is not available, sand bags or bags filled with gravel may be used for temporary repair measures.

b. When permanent repair of the stone protection is made, the stone used shall, as far as possible, be similar to the kind and gradation as originally used, and shall be placed to the thickness as shown on the drawings of Exhibit B.

c. In the event an inspection reveals that due to scour, settlement or other causes, stone protection on the bank is required beyond the limits of the original construction or in reaches of bank not

originally provided with such protection, local interests will provide additional sloping of the bank and placement of stone protection as needed to protect completed work. The work shall be done in a manner acceptable under a standard engineering practice.

d. Trees and brush should not be allowed to grow through the stone blanket. Trees and brush in the stone blanket should be cut or sprayed with proper herbicides when necessary.

EXHIBIT A

FEDERAL FLOOD CONTROL REGULATIONS

EXHIBIT A

**TITLE 33 - NAVIGATION AND
NAVIGABLE WATERS
(as of 1 January 1962)**

**Chapter II - Corps of Engineers
Department of the Army**

**PART 208 - Flood Control Regulations
MAINTENANCE AND OPERATION OF FLOOD
CONTROL WORKS**

Pursuant to the provisions of section 3 of the Act of Congress approved June 22, 1936, as amended and supplemented, (Sec. 3, 49 Stat. 1571 as amended; 33 U.S.C. 701c), the following regulations are hereby prescribed to govern the maintenance and operation of flood control works:

AUTHORITY: §§ 208.10 to 208.01 issued under sec. 7, 58 Stat. 890; 33 U.S.C. 708. Additional authority is cited in parentheses following the sections affected.

§ 208.10 Local flood protection works; maintenance and operation of structures and facilities.

(a) *General.* (1) The structures and facilities constructed by the United States for local flood protection shall be continuously maintained in such a manner and operated at such times and for such periods as may be necessary to obtain the maximum benefits.

(2) The State, political subdivision thereof, or other responsible local agency, which furnished assurance that it will maintain and operate flood control works in accordance with regulations prescribed by the Secretary of the Army, as required by law, shall appoint a permanent committee consisting of or headed by an official hereinafter called the "Superintendent," who shall be responsible for the development and maintenance of, and directly in charge of, an organization responsible for the efficient operation and maintenance of all of the structures and facilities during flood periods and for continuous inspection and maintenance of the project works during periods of low water, all without cost to the United States.

(3) A reserve supply of materials needed during a flood emergency shall be kept on hand at all times.

(4) No encroachment or trespass which will adversely affect the efficient operation or maintenance of the project works shall be permitted upon the rights-of-way for the protective facilities.

(5) No improvement shall be passed over, under, or through the walls, levees, improved channels or floodways, nor shall any excavation or construction be permitted within the limits of the project right-of-way, nor shall any change be made in any feature of the works without prior determination by the District Engineer of the Department of the Army or his authorized representative that such improvement, excavation, construction, or alteration will not adversely affect the functioning of the protective facilities. Such improvements or alterations as may be found to be desirable and permissible under the above determination shall be constructed in accordance with standard engineering practice. Advice regarding the effect of proposed improvements or alterations on the functioning of the project and information concerning methods of construction acceptable under standard engineering practice shall be obtained from the District Engineer or, if otherwise obtained, shall be submitted for his approval. Drawings or prints showing such improvements or alterations as finally constructed shall be furnished the District Engineer after completion of the work.

(6) It shall be the duty of the superintendent to submit a semiannual report to the District Engineer covering inspection, maintenance, and operation of the protective works.

(7) The District Engineer or his authorized representatives shall have access at all times to all portions of the protective works.

(8) Maintenance measures or repairs which the District Engineer deems necessary shall be promptly taken or made.

(9) Appropriate measures shall be taken by local authorities to insure that the activities of all local organizations operating public or private facilities connected with the protective works are coordinated with those of the Superintendent's organization during flood periods.

(10) The Department of the Army will furnish local interests with an Operation and Maintenance Manual for each completed project, or separate useful part thereof, to assist them in carrying out their obligations under this part.

(b) *Levees.* (1) *Maintenance.* The Superintendent shall provide at all times such maintenance as may be required to insure serviceability of the structures in time of flood. Measures shall be taken to promote the growth of sod, exterminate burrowing animals, and to provide for routine mowing of the grass and weeds, removal of wild growth and drift deposits, and repair of damage caused by erosion or other forces. Where practicable, measures shall be taken to retard bank erosion by planting of willows or other suitable growth on areas riverward of the levees. Periodic inspections shall be made by the Superintendent to insure that the above maintenance measures are being effectively carried out and, further, to be certain that:

(i) No unusual settlement, sloughing, or material loss of grade or levee cross section has taken place;

(ii) No caving has occurred on either the land side or the river side of the levee which might affect the stability of the levee section;

(iii) No seepage, saturated areas, or sand boils are occurring;

(iv) Toe drainage systems and pressure relief wells are in good working condition, and that such facilities are not becoming clogged;

(v) Drains through the levees and gates on said drains are in good working condition;

(vi) No revetment work or riprap has been displaced, washed out, or removed;

(vii) No action is being taken, such as burning grass and weeds during inappropriate seasons, which will retard or destroy the growth of sod;

(viii) Access roads to and on the levee are being properly maintained;

(ix) Cattle guards and gates are in good condition;

(x) Crown of levee is shaped so as to drain readily, and roadway thereon, if any, is well shaped and maintained;

(xi) There is no unauthorized grazing or vehicular traffic on the levees;

(xii) Encroachments are not being made on the levee right-of-way which might endanger the structure or hinder its proper and efficient functioning during times of emergency.

Such inspections shall be made immediately prior to the beginning of the flood season; immediately following each major high water period, and otherwise at intervals not exceeding 90 days, and such intermediate times as may be necessary to insure the best possible care of the levee. Immediate steps will be taken to correct dangerous conditions disclosed by such inspections. Regular maintenance repair measures shall be accomplished during the appropriate season as scheduled by the Superintendent.

(2) *Operation.* During flood periods the levee shall be patrolled continuously to locate possible sand boils or unusual wetness of the landward slope and to be certain that:

(i) There are no indications of slides or sloughs developing;

(ii) Wave wash or scouring action is not occurring;

(iii) No low reaches of levee exist which might be overtopped;

(iv) No other conditions exist which might endanger the structure.

Appropriate advance measures will be taken to insure the availability of adequate labor and materials to meet all

contingencies. Immediate steps will be taken to correct any condition which endangers the levee and to repair the damaged section.

(c) *Flood walls.* (1) *Maintenance.* Periodic inspections shall be made by the Superintendent to be certain that:

(i) No seepage, saturated areas, or sand boils are occurring;

(ii) No undue settlement has occurred which affects the stability of the wall or its water tightness;

(iii) No trees exist, the roots of which might extend under the wall and offer accelerated seepage paths;

(iv) The concrete has not undergone cracking, chipping, or breaking to an extent which might affect the stability of the wall or its water tightness;

(v) There are no encroachments upon the right-of-way which might endanger the structure or hinder its functioning in time of flood;

(vi) Care is being exercised to prevent accumulation of trash and debris adjacent to walls, and to insure that no fires are being built near them;

(vii) No bank caving conditions exist riverward of the wall which might endanger its stability;

(viii) Toe drainage systems and pressure relief wells are in good working condition, and that such facilities are not becoming clogged.

Such inspections shall be made immediately prior to the beginning of the flood season, immediately following each major high water period, and otherwise at intervals not exceeding 90 days. Measures to eliminate encroachments and effect repairs found necessary by such inspections shall be undertaken immediately. All repairs shall be accomplished by methods acceptable in standard engineering practice.

(2) *Operation.* Continuous patrol of the wall shall be maintained during flood periods to locate possible leakage at monolith joints or seepage underneath the wall. Floating plant or boats will not be allowed to lie against or tie up to the wall. Should it become necessary during a flood emergency to pass anchor cables over the wall, adequate measures shall be taken to protect the concrete and construction joints. Immediate steps shall be taken to correct any condition which endangers the stability of the wall.

(d) *Drainage structures.* (1) *Maintenance.* Adequate measures shall be taken to insure that inlet and outlet channels are kept open and that trash, drift, or debris is not allowed to accumulate near drainage structures. Flap gates and manually operated gates and valves on drainage structures shall be examined, oiled, and trial operated at least once every 90 days. Where drainage structures are provided with stop log or other emergency closures, the condition of the equipment and its housing shall be inspected regularly and a trial installation of the emergency closure shall be made at least once each year. Periodic inspections shall be made by the Superintendent to be certain that:

(i) Pipes, gates, operating mechanism, riprap, and headwalls are in good condition;

(ii) Inlet and outlet channels are open;

(iii) Care is being exercised to prevent the accumulation of trash and debris near the structures and that no fires are being built near bituminous coated pipes;

(iv) Erosion is not occurring adjacent to the structure which might endanger its water tightness or stability.

Immediate steps will be taken to repair damage, replace missing or broken parts, or remedy adverse conditions disclosed by such inspections.

(2) *Operation.* Whenever high water conditions impend, all gates will be inspected a short time before water reaches the invert of the pipe and any object which might prevent closure of the gate shall be removed. Automatic gates shall be closely observed until it has been ascertained that they are securely closed. Manually operated gates and valves shall be closed as necessary to prevent inflow of flood water. All drainage structures

in levees shall be inspected frequently during floods to ascertain whether seepage is taking place along the lines of their contact with the embankment. Immediate steps shall be taken to correct any adverse condition.

(e) *Closure structures*—(1) *Maintenance*. Closure structures for traffic openings shall be inspected by the superintendent every 90 days to be certain that:

- (i) No parts are missing;
- (ii) Metal parts are adequately covered with paint;
- (iii) All movable parts are in satisfactory working order;
- (iv) Proper closure can be made promptly when necessary;
- (v) Sufficient materials are on hand for the erection of sand bag closures and that the location of such materials will be readily accessible in times of emergency.

Tools and parts shall not be removed for other use. Trial erections of one or more closure structures shall be made once each year, alternating the structures chosen so that each gate will be erected at least once in each 3-year period. Trial erection of all closure structures shall be made whenever a change is made in key operating personnel. Where railroad operation makes trial erection of a closure structure infeasible, rigorous inspection and drill of operating personnel may be substituted therefor. Trial erection of sand bag closures is not required. Closure materials will be carefully checked prior to and following flood periods, and damaged or missing parts shall be repaired or replaced immediately.

(2) *Operation*. Erection of each movable closure shall be started in sufficient time to permit completion before flood waters reach the top of the structure sill. Information regarding the proper method of erecting each individual closure structure, together with an estimate of the time required by an experienced crew to complete its erection will be given in the Operation and Maintenance Manual which will be furnished local interests upon completion of the project. Closure structures will be inspected frequently during flood periods to ascertain that no undue leakage is occurring and that drains provided to care for ordinary leakage are functioning properly. Boats or floating plant shall not be allowed to tie up to closure structures or to discharge passengers or cargo over them.

(f) *Pumping plants*—(1) *Maintenance*. Pumping plants shall be inspected by the Superintendent at intervals not to exceed 30 days during flood seasons and 90 days during off-flood seasons to insure that all equipment is in order for instant use. At regular intervals, proper measures shall be taken to provide for cleaning plant, buildings, and equipment, repainting as necessary, and lubricating all machinery. Adequate supplies of lubricants for all types of machines, fuel for gasoline or diesel powered equipment, and flash lights or lanterns for emergency lighting shall be kept on hand at all times. Telephone service shall be maintained at pumping plants. All equipment, including switch gear, transformers, motors, pumps, valves, and gates shall be trial operated and checked at

least once every 90 days. Megger tests of all insulation shall be made whenever wiring has been subjected to undue dampness and otherwise at intervals not to exceed one year. A record shall be kept showing the results of such tests. Wiring disclosed to be in an unsatisfactory condition by such tests shall be brought to a satisfactory condition or shall be promptly replaced. Diesel and gasoline engines shall be started at such intervals and allowed to run for such length of time as may be necessary to insure their serviceability in times of emergency. Only skilled electricians and mechanics shall be employed on tests and repairs. Operating personnel for the plant shall be present during tests. Any

equipment removed from the station for repair or replacement shall be returned or replaced as soon as practicable and shall be trial operated after reinstallation. Repairs requiring removal of equipment from the plant shall be made during off-flood seasons insofar as practicable.

(2) *Operation*. Competent operators shall be on duty at pumping plants whenever it appears that necessity for pump operation is imminent. The operator shall thoroughly inspect, trial operate, and place in readiness all plant equipment. The operator shall be familiar with the equipment manufacturers' instructions and drawings and with the "Operating Instructions" for each station. The equipment shall be operated in accordance with the above-mentioned "Operating Instructions" and care shall be exercised that proper lubrication is being supplied all equipment, and that no overheating, undue vibration or noise is occurring. Immediately upon final recession of flood waters, the pumping station shall be thoroughly cleaned, pump house sumps flushed, and equipment thoroughly inspected, oiled and greased. A record or log of pumping plant operation shall be kept for each station, a copy of which shall be furnished the District Engineer following each flood.

(g) *Channels and floodways*—(1) *Maintenance*. Periodic inspections of improved channels and floodways shall be made by the Superintendent to be certain that:

(i) The channel or floodway is clear of debris, weeds, and wild growth;

(ii) The channel or floodway is not being restricted by the depositing of waste materials, building of unauthorized structures or other encroachments;

(iii) The capacity of the channel or floodway is not being reduced by the formation of shoals;

(iv) Banks are not being damaged by rain or wave wash, and that no sloughing of banks has occurred;

(v) Riprap sections and deflection dikes and walls are in good condition;

(vi) Approach and egress channels adjacent to the improved channel or floodway are sufficiently clear of obstructions and debris to permit proper functioning of the project works.

Such inspections shall be made prior to the beginning of the flood season and otherwise at intervals not to exceed 90 days. Immediate steps will be taken to remedy any adverse conditions disclosed by such inspections. Measures will be taken by the Superintendent to promote the growth of grass on bank slopes and earth deflection dikes. The Superintendent shall provide for periodic repair and cleaning of debris basins, check dams, and related structures as may be necessary.

(2) *Operation*. Both banks of the channel shall be patrolled during periods of high water, and measures shall be taken to protect those reaches being attacked by the current or by wave wash. Appropriate measures shall be taken to prevent the formation of jams of ice or debris. Large objects which become lodged against the bank shall be removed. The improved channel or floodway shall be thoroughly inspected immediately following each major high water period. As soon as practicable thereafter, all snags and other debris shall be removed and all damage to banks, riprap, deflection dikes and walls, drainage outlets, or other flood control structures repaired.

(h) *Miscellaneous facilities*—(1) *Maintenance*. Miscellaneous structures and facilities constructed as a part of the protective works and other structures and facilities which function as a part of, or affect the efficient functioning of the protective works, shall be periodically inspected by the Superintendent and appropriate maintenance measures taken. Damaged or unserviceable parts shall be repaired or replaced without delay. Areas used for ponding in connection with pumping plants or for temporary storage of interior run-off during flood

periods shall not be allowed to become filled with silt, debris, or dumped material. The Superintendent shall take proper steps to prevent restriction of bridge openings and, where practicable, shall provide for temporary raising during floods of bridges which restrict channel capacities during high flows.

(2) *Operation*. Miscellaneous facilities shall be operated to prevent or reduce flooding during periods of high water. Those facilities constructed as a part of the protective works shall not be used for purposes other than flood protection without approval of the District Engineer unless designed therefor.

(Sec. 3, 49 Stat. 1571, as amended; 33 U.S.C. 701c) [9 F.R. 9099, Aug. 17, 1944; 6 F.R. 10203, Aug. 23, 1944]

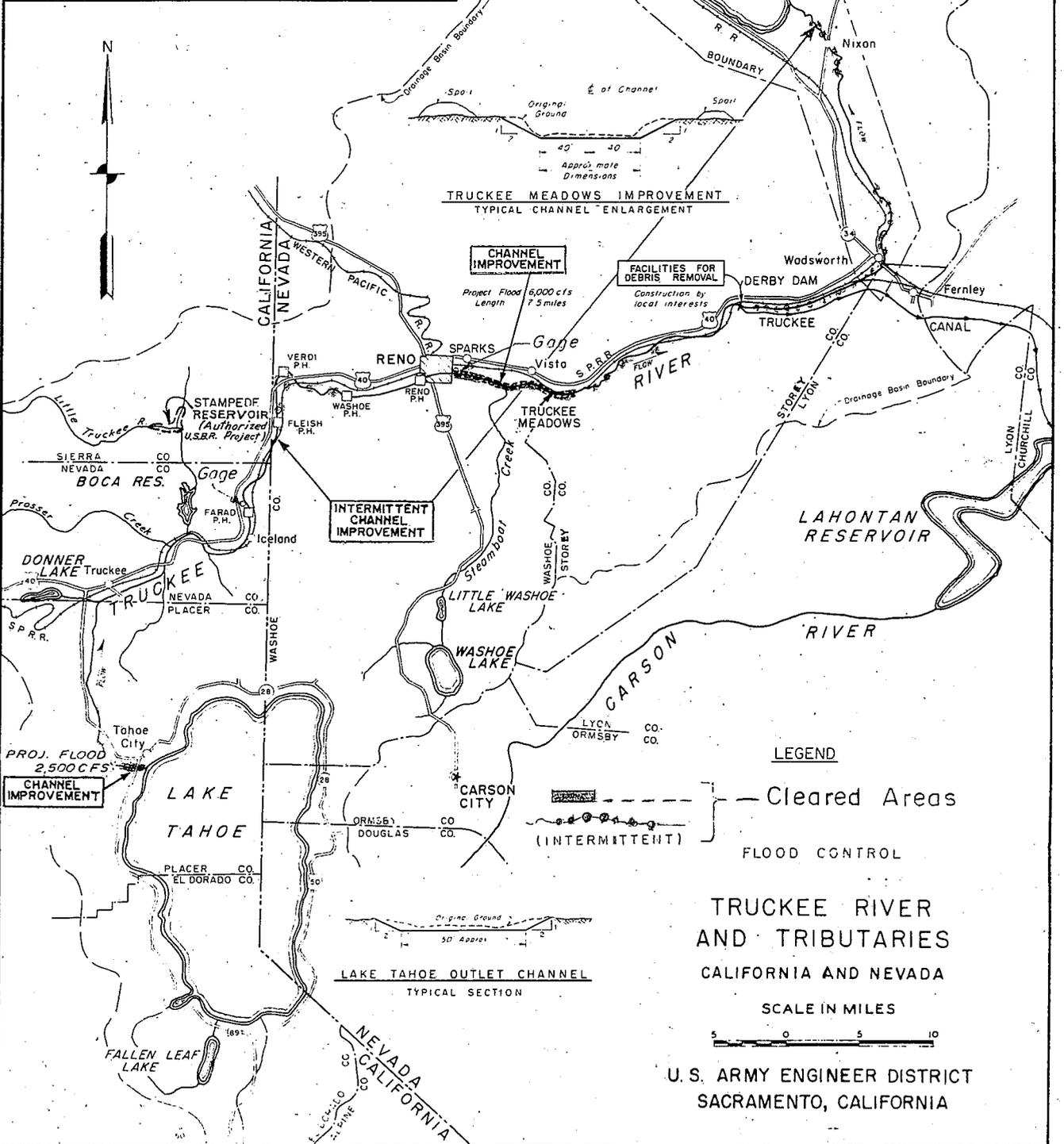
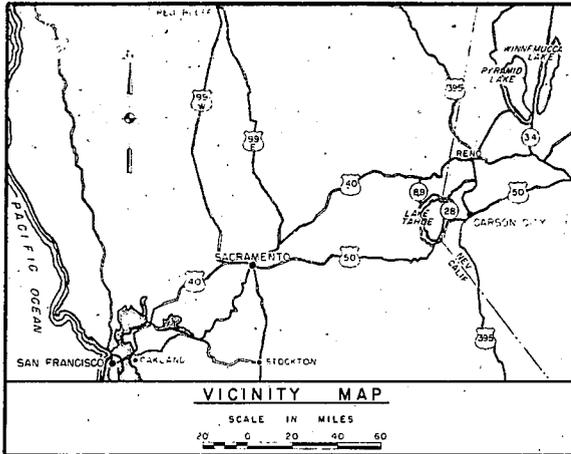


EXHIBIT B

"AS CONSTRUCTED"
DRAWINGS

(See Separate Folder for the Following Drawings)

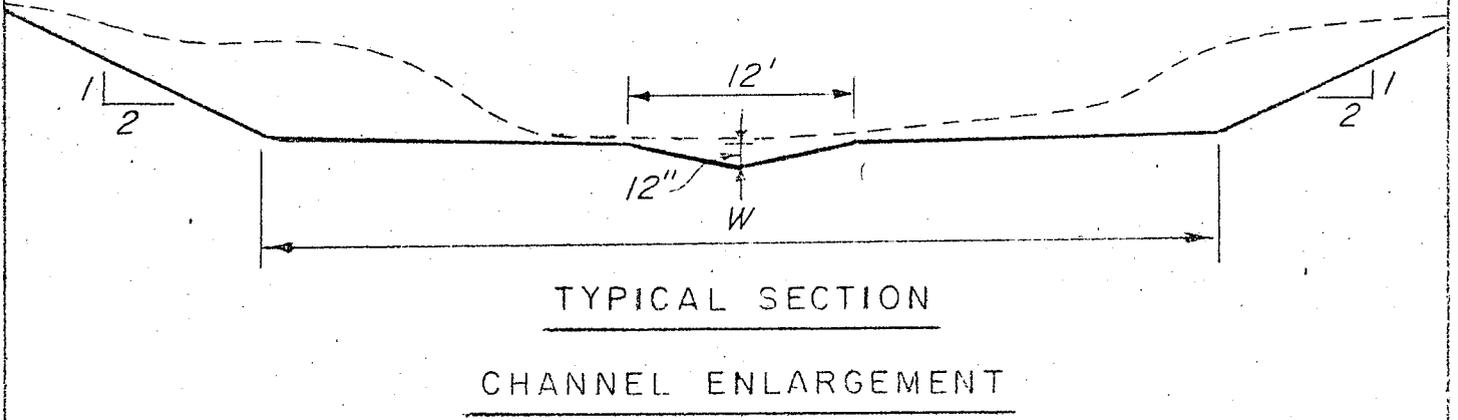
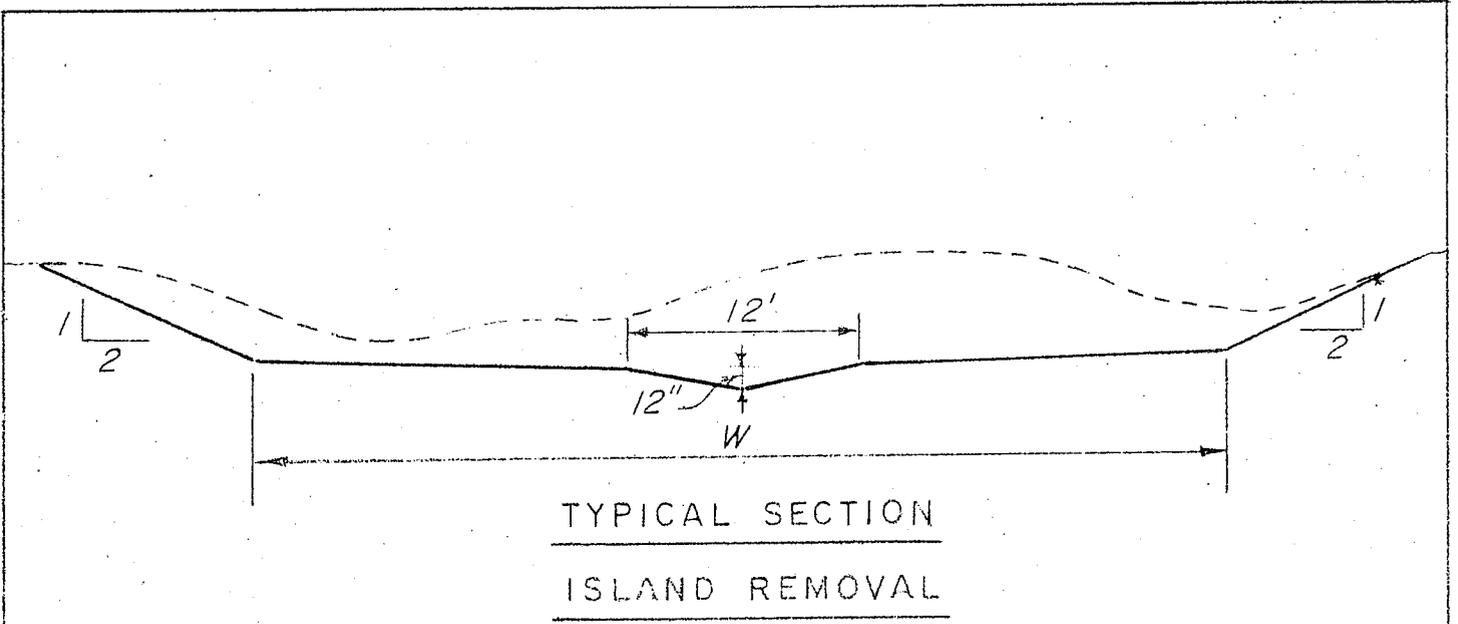
<u>File No.</u>	<u>Title</u>
TR-6-140	Channel Improvement, Truckee River Station 0/00 to 379/50, in Washoe and Storey Counties, Nevada. Sheets 1 to 6 and sheet 9
TR-6-141	Channel Improvement, Truckee River below Lake Tahoe in California, in 6 sheets.

EXHIBIT B
Unattached

EXHIBIT C

PLATES SHOWING INTERMITTENT WORK

EXHIBIT C

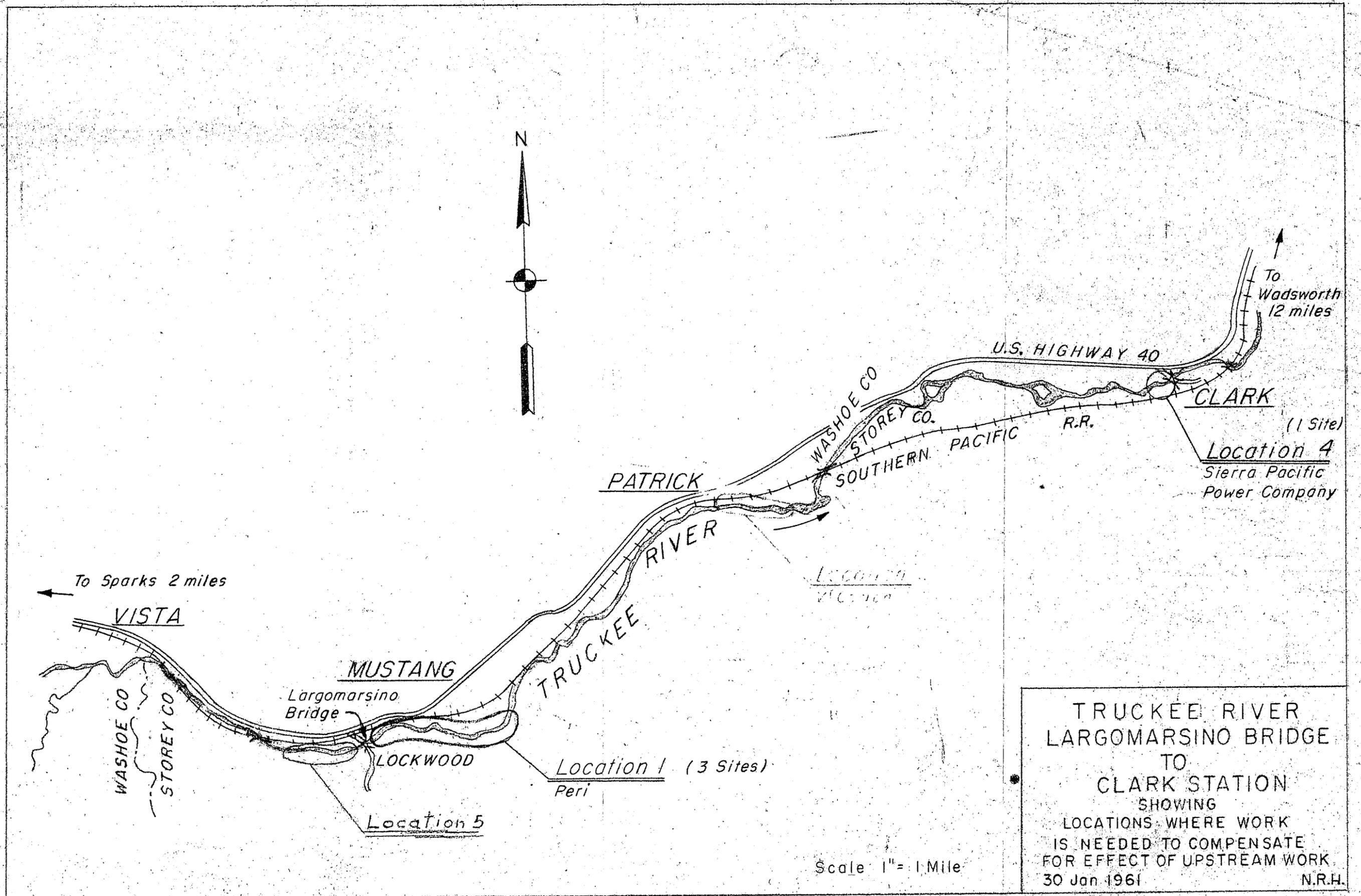


NOTES:

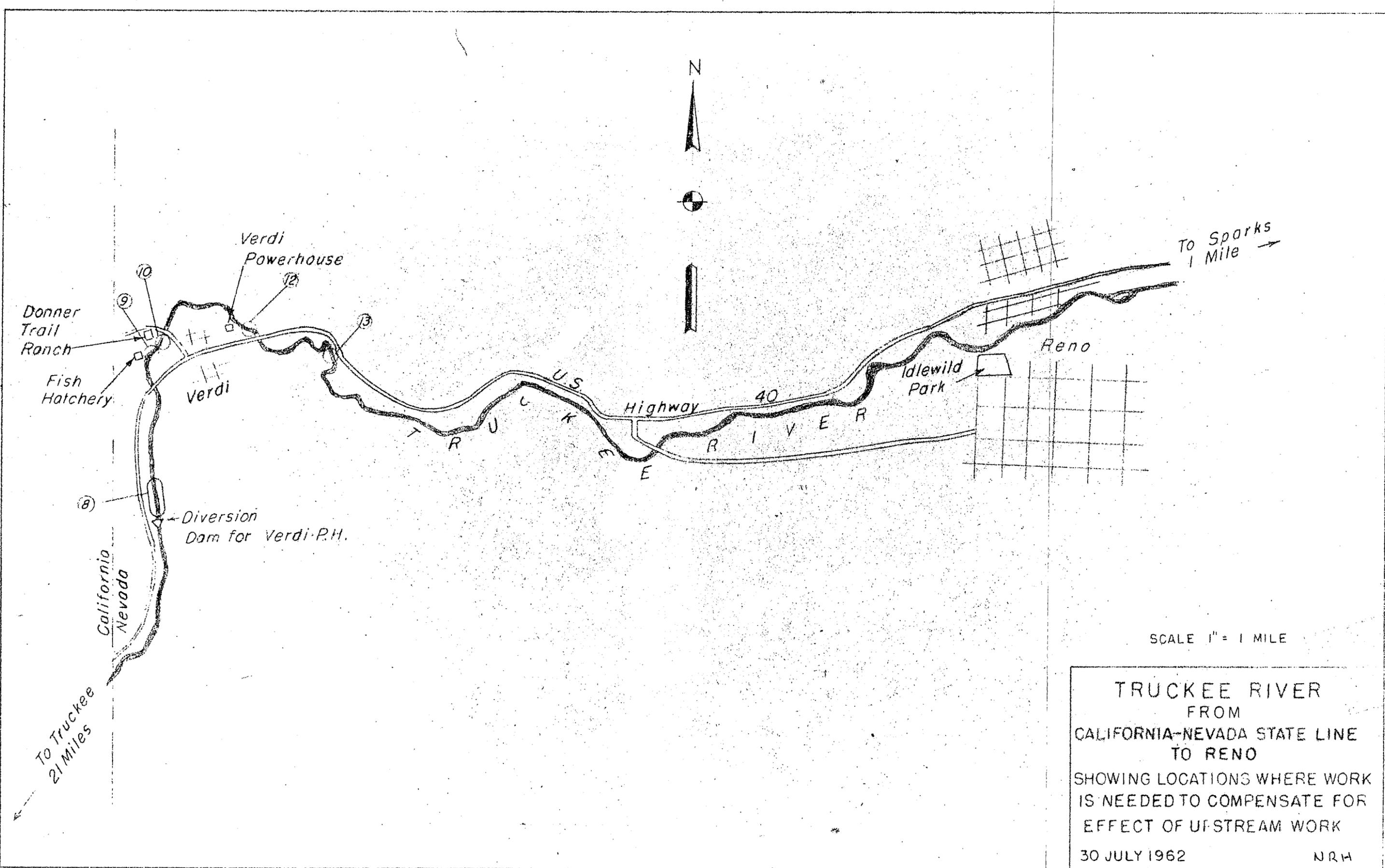
- W = 50'± for sites 1 to 7, inclusive
- W = 70'± for sites 8 to 15, inclusive

SCALE: 1"=10 FEET

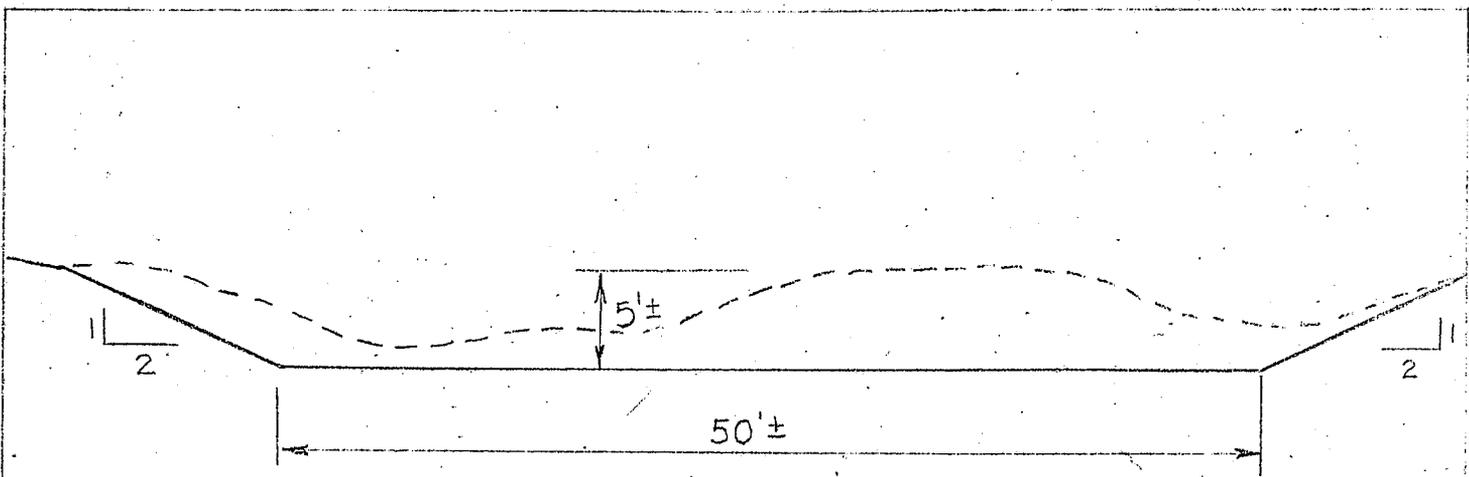
TRUCKEE RIVER
PROJECT
TYPICAL SECTIONS
FOR
INTERMITTENT CHANNEL
RECTIFICATION
LAKE TAHOE TO RENO



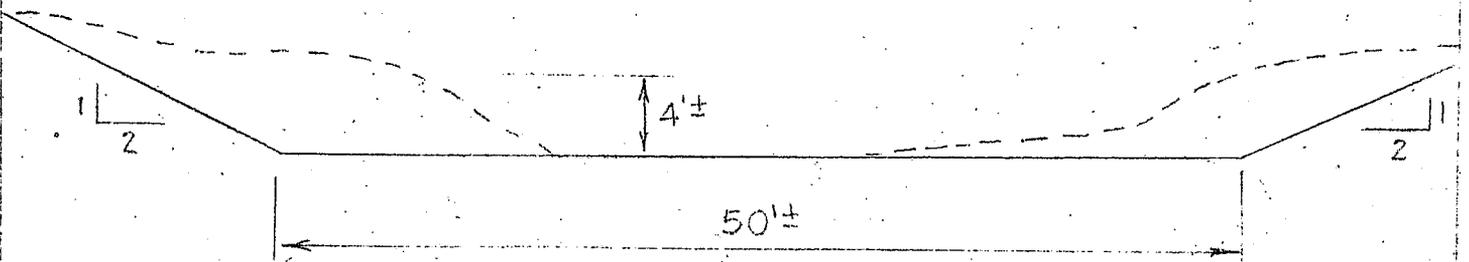
TRUCKEE RIVER
 LARGOMARSINO BRIDGE
 TO
 CLARK STATION
 SHOWING
 LOCATIONS WHERE WORK
 IS NEEDED TO COMPENSATE
 FOR EFFECT OF UPSTREAM WORK
 30 Jan 1961 N.R.H.



TRUCKEE RIVER
 FROM
 CALIFORNIA-NEVADA STATE LINE
 TO RENO
 SHOWING LOCATIONS WHERE WORK
 IS NEEDED TO COMPENSATE FOR
 EFFECT OF UP-STREAM WORK
 30 JULY 1962 NRH



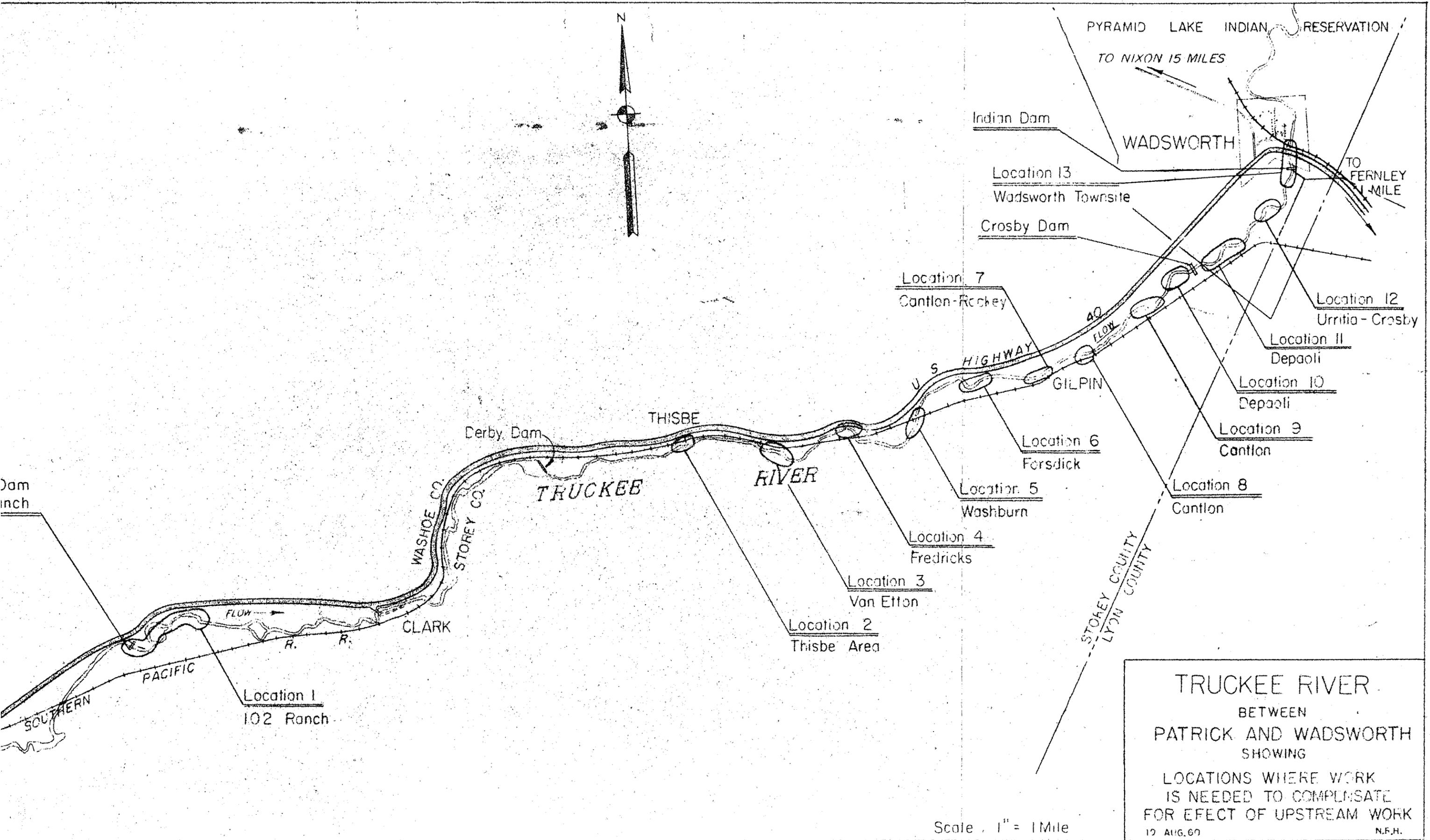
TYPICAL SECTION
ISLAND REMOVAL



TYPICAL SECTION
CHANNEL ENLARGEMENT

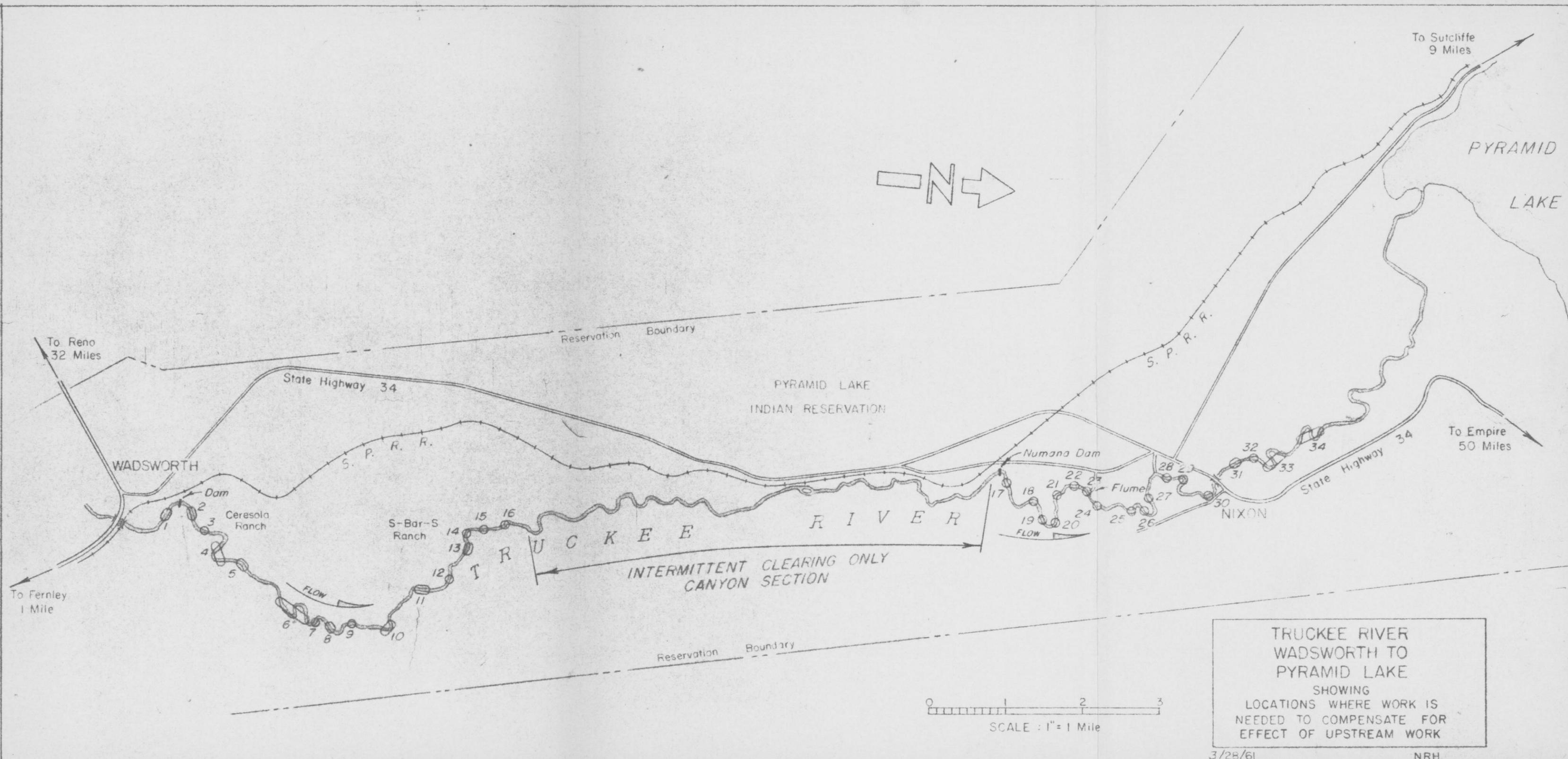
SCALE: 1" = 10'

TRUCKEE RIVER
PROJECT
INTERMITTENT CHANNEL
RECTIFICATION BELOW
TRUCKEE MEADOWS
TYPICAL SECTIONS



TRUCKEE RIVER
 BETWEEN
 PATRICK AND WADSWORTH
 SHOWING
 LOCATIONS WHERE WORK
 IS NEEDED TO COMPENSATE
 FOR EFFECT OF UPSTREAM WORK
 12 AUG. 60 N.F.H.

Scale, 1" = 1 Mile



TRUCKEE RIVER
 WADSWORTH TO
 PYRAMID LAKE
 SHOWING
 LOCATIONS WHERE WORK IS
 NEEDED TO COMPENSATE FOR
 EFFECT OF UPSTREAM WORK

3/28/61

NRH

EXHIBIT D

SUGGESTED SEMI-ANNUAL REPORT FORM

EXHIBIT D

TO: The District Engineer
U. S. Army Engineer District, Sacramento
Corps of Engineers
Federal and Courts Bldg., 650 Capitol Ave.
Sacramento 14, California

(1 May 19__)
(1 Nov 19__)

Dear Sir:

The semi-annual report for the period (1 May 19__ to 31 October 19__) (1 November 19__ to 30 April 19__) Truckee River Project channel improvement, California and Nevada Counties, is as follows:

a. The physical condition of the protective works is indicated by the inspector's report, copies of which are inclosed, and may be summarized as follows:

(Superintendent's summary of conditions)

It is our intention to perform the following maintenance work in order to repair or correct the conditions indicated:

(Outline the anticipated maintenance operations for the following 6 months.)

b. During this report period, major high water periods (water surface in the Truckee River reached or exceeded a reading of 8.0 on the U.S.G.S. gage near Farad or 8.0 on the U.S.G.S. gage downstream from Reno) occurred on the following dates:

<u>Dates</u>	<u>Maximum Elevation</u>
_____	_____
_____	_____
_____	_____

Comments on the behavior of the protective works during such high water periods are as follows:

(Superintendent's log of flood observations)

During the high water stages when the water level reached a height of _____, on the gage or excess thereof (dates) _____, it was necessary to organize and carry out flood operations as follows:

c. The inspections have indicated (no) or (the following) encroachments or trespasses upon the project right-of-way.

d. (No) (_____) permits have been issued for (the following) improvements or construction within the project right-of-way.

Executed copies of the permit documents issued are transmitted for your files.

e. The status of maintenance measures, indicated in the previous semi-annual report as being required or as suggested by the representatives of the District Engineer, is as follows:

(Statement of maintenance operations, item by item with percent completion.)

f. The fiscal statement of the Superintendent's operations for the current report period is as follows:

	<u>Labor</u>	<u>Material</u>	<u>Equipment</u>	<u>Overhead</u>	<u>Total</u>
1. Inspection					
2. Maintenance					
3. Flood fighting Operations					
TOTAL					

Respectfully submitted,

Superintendent of Works

EXHIBIT E

SUGGESTED CHECK LISTS FOR CHANNELS

CHECK LIST NO. 2

CHANNEL AND RIGHT-OF-WAY
TRUCKEE RIVER

Inspector's Report Sheet No. _____ Inspector _____

Date _____ Superintendent _____

Item	Remarks
(a) Name of channel and Location by stations	
(b) Vegetal growth in channel	
(c) Debris and refuse in channel	
(d) New construction within right-of-way	
(e) Extent of aggradation or degradation	
(f) Condition of riprapped section	
(g) Condition of bridges	
(h) Measures taken since last inspection	
(i) Comments	

INSTRUCTIONS FOR COMPLETING SHEET 2, EXHIBIT E
(To be printed on back of Sheet 2)

- Item (a) Indicate station of observation obtained by pacing from nearest reference point.
- Item (b) Note nature, extent, and size of vegetal growth within the limits of flood flow channel.
- Item (c) Note nature and extent of debris and refuse that might cause clogging of the conduits of the irrigation intake works, fouling of the tainter gates, or the bridges over the channel.
- Item (d) Report any construction along the diversion channel or above the diversion channel or above the diversion works that has come to the attention of the inspector and that might affect the functioning of the project.
- Item (e) Indicate any change in grade or alignment of the channels, either by deposition of sediment or scour, that is noticeable by visual inspection. Estimate amount and extent.
- Item (f) Indicate any change that has taken place in the riprap such as disintegration of the rock, erosion, or movement of the rock. Note the presence of vegetal growth through the riprap.
- Item (g) Note any damage or settlement of the footings of the bridges. Indicate condition of wooden structures and if repainting is required. Indicate condition of bridge approaches, headwalls, and other appurtenances.
- Item (h) Indicate maintenance measures that have been performed since the last inspection and their condition at time of this inspection.
- Item (i) Record opinion, if any, of contributory causes for conditions observed, also any observations not covered under other columns.

NOTE: One copy of the Inspector's Report is to be mailed to the District Engineer immediately on completion, and one copy is to be attached to and submitted with the Superintendent's semi-annual report.

EXHIBIT F
LETTERS OF ACCEPTANCE BY LOCAL INTERESTS

EXHIBIT F

317:1 Item 1
Truckee R. & Trib.

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STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SACRAMENTO

July 11, 1960

District Engineer
U. S. Army Engineer District, Sacramento
P. O. Box 1739
Sacramento 8, California

Refer to File No: SPKKO-C

Dear Sir:

This will acknowledge the receipt of your registered letter of July 1, 1960, in connection with the Truckee River and Tributaries Project.

A portion of the required work under this project, beginning at Station 0+71 near State Highway 90 Bridge below the existing Lake Tahoe outlet structure, and extending downstream to Station 31+24.19 has been completed in accordance with Specification No. 2658. A joint inspection was made of the construction on June 29, 1960, just prior to completion of this unit.

Your letter gives notification of the official transfer of the above-described portion of the project to the State of California for operation and maintenance in accordance with existing Federal Flood Control Regulations. This office has in turn received assurance from the County of Placer that the county will maintain this portion.

It is understood that an Operation and Maintenance Manual will be transmitted to us in the near future.

Sincerely yours,

/s/ Walter G. Schulz
WALTER G. SCHULZ, Chief Engineer
Division of Design and Construction

EXHIBIT F
Sheet 1 of 4

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STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
CARSON CITY

May 12, 1960

Colonel H. A. Morris,
District Engineer,
U. S. Army Engineer District, Sacramento,
Corps of Engineers,
P. O. Box 1739,
Sacramento 8, California.

Dear Colonel Morris:

This acknowledges your letter of May 10th advising this office that the flood control work on the Truckee River beginning at Station 0/18 at the Second Street Bridge over the Truckee River in Reno and extending downstream through Truckee Meadows to Station 379/50 was completed 15 March 1960. You further advised that said completed work, which now meets the requirement of the project, is transferred to the State of Nevada for operation and maintenance.

Acknowledgement is also made of Flood Control Regulations approved June 22, 1936 with particular reference to paragraph 208.10 (10) on Operation and Maintenance Manual which you advise is now in the process of preparation.

I want to express my appreciation to you and your staff there in Sacramento as well as to Mr. Beonemort of the Reno office for the cooperation you gave us. Mr. Muth has informed me that your staff in the Reno office gave him wholehearted support.

Sincerely yours,

/s/ Hugh A. Shamberger
HUGH A. SHAMBERGER
Director

EXHIBIT F
Sheet 2 of 4

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STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
CARSON CITY

YOUR REF: SPKKO-C

April 20, 1961

H. N. Turner, Colonel, C.E.,
District Engineer, Corps of Engineers,
U. S. Army Engineering Department,
Box 1739,
Sacramento 8, California.

Dear Colonel Turner:

I wish to acknowledge your letter of April 10th wherein you advise that except for certain reaches of the river the flood control work on the river now meets the requirements of the project and is being transferred to the State of Nevada for operation and maintenance. Your letter was accompanied by four enclosures.

Special mention is made to the enclosure setting up the existing flood control regulations under which the State of Nevada must operate pursuant to Section 3 of the Act of Congress, 1936 as amended and supplemented. It is also noted that the operation and maintenance manual covers the work under a portion of the Truckee River project and is in the process of preparation and will be furnished as soon as completed.

Mr. Muth and myself are planning to meet with certain interested parties who have offered some objections to the continued flood control work on the Truckee River in the hopes that we can arrive at a proper solution that will meet with your approval and will allow the unfinished portions to be completed. I think this is extremely important and we will use every possible effort to assist in bringing this about.

Again assuring you of our appreciation for the many courtesies that you and your staff have offered to the State of Nevada, I remain

Sincerely yours,

/s/ Hugh A. Shamberger
HUGH A. SHAMBERGER
Director

EXHIBIT F
Sheet 3 of 4

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STATE OF NEVADA

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
Carson City

October 16, 1963

Colonel Robert E. Mathe,
District Engineer,
U. S. Army Engineer District, Sacramento
Corps of Engineers,
P. O. Box 1739,
Sacramento, California 95808

Dear Colonel Mathe:

We have received your letter of October 10, 1963, advising that required flood control work, consisting of channel improvement and rectification on the Truckee River on three sites in the vicinity of the Peri property, was completed on August 28, 1963.

We acknowledge that this work now meets the requirements of the project and that it is transferred to the State of Nevada for operation and maintenance.

I sincerely appreciate the cooperation of you and your staff in completing this project.

Sincerely yours,

/s/ Hugh A. Shamberger
HUGH A. SHAMBERGER
Director

EXHIBIT G
SUGGESTED FORM OF PERMIT

EXHIBIT G

EXHIBIT G

PERMIT

(Name of Levee Commission or City)

(Location)

Permission is hereby granted to:

(Name of Firm or Individual)

(Address)

TO: (Describe in these spaces the proposal, including kind and type of construction, purpose intended, location by stationing. Indicate passageway provided by means of gates, etc. Use separate sheets if necessary, identifying each by reference herein.)

Provided that:

Upon termination or expiration of this permit (whether by voluntary relinquishment by the grantee, by revocation by the grantor or otherwise) the grantee shall remove all structures, improvements, or appurtenances which may have been erected or constructed under this permit, and shall repair or replace any portion of the flood protection structure or right-of-way which may have been damaged by his operations (including grading and seeding, or sodding, if necessary), to the satisfaction of the grantor.

The structure or operation for which this permit is issued shall be maintained by the grantee in such manner as shall not injure or damage the flood protection structure, or interfere with its operation and maintenance in accordance with regulations of the Secretary of the Army.

The structure or operation covered by this permit may be damaged, removed or destroyed by the grantor in time of flood emergency if such action is determined by the grantor to be necessary in order to preserve life or property or prevent damage or impairment to the use or safety of the flood protection structure, and the grantor shall not be liable to the grantee for such damage or destruction.

Unless otherwise specifically provided herein, this permit may be cancelled at any time by the grantor upon 10 days written notice mailed to the address shown above. During such 10 day period, (or such other period as may be provided herein), the grantee will be permitted to s remove any property or improvements installed under this permit, and to repair or replace any damage to the flood protection right-of-way or structures resulting from his use of operations. At the end of such period, the grantor shall have the right to possess and dispose of any such property or improvements remaining upon its right-of-way, and may proceed to repair or replace any such damage, and the grantee herein shall be liable to the grantor for the full cost of such repairs or replacements.

The construction, installation and maintenance of the structure or covered by this permit shall be subject to inspection by representatives of the grantor and the United States at all reasonable times.

In the event the work covered by this permit consists of or includes major construction, the cost of inspection thereof by the grantor and/or the United States shall be paid by the applicant.

Grantee agrees that it will not use the area or facilities covered by this permit, or permit such area to be used, for any purpose other than is specifically covered by this permit.

(Use these spaces for special conditions applicable to this permit.)

THIS PERMIT SHALL NOT BE VALID UNTIL APPROVED BY THE DISTRICT ENGINEER, U.S. ARMY ENGINEER DISTRICT, SACRAMENTO, OR HIS AUTHORIZED REPRESENTATIVE.

Signature (Grantor) (Title) (Date)

Terms of this permit
are hereby accepted.

Approved:

Signature (Grantee) (Date) _____ (Date)

District Engineer

EXHIBIT B
Sheet 2 of 3

REGULATIONS GOVERNING ISSUANCE OF PERMITS FOR USE OF
RIGHTS-OF-WAY FOR FLOOD PROTECTION PROJECTS

As the flood protection works and rights-of-way are owned by the Local Interests and will be operated and maintained by them in accordance with the Regulations of the Secretary of the Army, and issuance of any permits to use any part of the rights-of-way will be handled by the Local Interests, with the restriction that no such permit may be issued without the approval of the District Engineer, as stated in Paragraph No. 208.10, (a) General, (5) of the Regulations, a copy of which is attached hereto.

Applications for use of the rights-of-way should be addressed to The City or Levee Commission having jurisdiction over the local flood protection project. The City or Levee Commission will then forward the application to the District Engineer, Corps of Engineers, Sacramento, California, with its recommendation, with reasons for such recommendation. It is suggested that the application and recommendations be forwarded with a draft copy of the permit, in order that the applicant as this may prevent misunderstandings and arguments. If for any reason it is desired to forward the permit itself without this intervening step, five copies of the proposed permit should be included on which is stated the exact use of the rights-of-way, for which permission is being requested, together with any condition or restriction of the permit. The permit should be signed by the applicant and an official of the Local Interests. A drawing, sketch or detail plans as may be required to show the exact location, nature of work and proposed method of construction should be attached to each copy of permit. If the permit is approved by the District Engineer, three copies will be returned. This will enable each party concerned to have a copy of the approved permit.

In any case where a permit is requested for any purpose which might cause disfigurement or damage to the flood protection rights-of-way or structure in its erection, use, or removal, it is suggested that the applicant be required to post a bond of sufficient amount to protect the Local Interests from any cost of repair or removal, and to guarantee faithful performance of the permit conditions. In such cases the permit should state the amount and conditions of the bond.

In cases involving major construction or other work which may directly affect the flood protection structure, it will be necessary that the United States inspect the work and the Local Interests may also desire to inspect it. As stated in the permit form, such inspection will be at the expense of the grantee, and this should be called to his attention. Except in cases of known financial security, arrangements should be made with the grantee for an advance deposit or bond to cover such costs.

There is attached hereto a copy of a permit form which has been successfully used by a number of cities and levee committees.