

**CALIFORNIA COASTAL COMMISSION**

NORTH COAST AREA  
 FREMONT, SUITE 2000  
 SAN FRANCISCO, CA 94105-2219  
 (415) 904-5260

# W 12b



**Appl. filed:** June 26, 1998  
**49th day:** August 14, 1998  
**180th day:** December 23, 1998  
**Staff:** RS-SF  
**Staff Report:** August 27, 1998  
**Hearing Date:** September 9, 1998  
**Commission Action:**

**STAFF REPORT: REGULAR CALENDAR**

**APPLICATION NO.:** 1-98-051

**APPLICANT:** Vernon Kendall Trust and Russel Caughey, Successor Trustee

**AGENT:** John Behnke, Law Offices of Rawles, Hinkle, Carter, Behnke & Oglesby  
 169 Mason St., Suite 300, P.O. Box 720, Ukiah, CA 95482

**PROJECT LOCATION:** 43001 Mountain View Rd., Manchester, Mendocino County, CA 95459  
 APN 133-150-03

**SITE DESCRIPTION:** The site consists of a 269-acre ranch, situated approximately 1 mile east of Highway 1 and 4.5 miles from the mouth of the Garcia River which flows in a westerly direction to the Pacific Ocean. The property is on the north side of the river. **(Exhibit #1)**

**PROJECT DESCRIPTION:** The project includes: a) removal of an in-channel dike consisting of: 1) excavation to existing grade, 2) construction of an eight-foot wide low-flow "V" shaped channel connected to the north channel area, 3) deposition of excavated materials against the vertical north bank, and 4) installation of a temporary gravel bar downstream to trap sediments from the excavation material; b) planting of willows at the base of the north stream bank; c) construction of a fence to prevent cattle and sheep intrusion; d) bank stabilization approximately 715 feet long, by reshaping and installing live willow baffles approximately 20 feet wide (10 feet up the bank and 10 feet out into the gravel flood plain); and e) provision of habitat cover to facilitate creation of a backwater pool for juvenile Coho salmon. The project is proposed to be completed before October 1, 1998.

**LOCAL APPROVALS RECEIVED:** LCP Consistency Review from Mendocino County

**SUBSTANTIVE FILE DOCUMENTS:**

- 1) Mendocino County Local Coastal Program
  - 2) Waiver of coastal development permit requirement No. 1-96-40W
  - 3) Emergency Permit No. 1-97-064-G
  - 4) Kendall Ranch – Garcia River Siltation Investigation by Michael Rugg, Water Quality Biologist, California Dept. of Fish and Game, September 17, 1997.
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**SUMMARY OF STAFF RECOMMENDATION**

Staff recommends that the Commission approve with conditions the coastal development permit application submitted by the applicant for the restoration of aquatic habitat and stabilization of the north bank of the Garcia River through removal of an in-channel dike, planting of willows, construction of a fence, stabilizing a bank using live willow baffles and additional riparian and willow matting vegetation.

Although the proposed project would be beneficial in restoring coastal resources, the project itself would contribute to erosion and sedimentation because the work includes grading of the river channel and bank. To mitigate for these impacts, the Commission impose a number of special conditions including conditions requiring (a) the installation of a silt catchment basin, (b) compaction of disturbed areas, (c) completion of the project by October 1 to avoid the rainy season and periods of high runoff and river flows, and (d) relocation of the cattle fence 50 feet away from the top of the bank to minimize sedimentation.

As conditioned, staff believes that the project is consistent with the Coastal Act and recommends that the Commission adopt the resolution and findings contained in this report.

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**STAFF NOTE**

**Standard of Review**

The proposed project is located in Mendocino County. The County has a certified LCP, but the project that is the subject of Coastal Development Permit Application No. 1-98-51 is within the Commission's retained jurisdictional area along Garcia River. Therefore, the standard of review that the Commission must apply to the project is the Coastal Act.

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**I. MOTION, STAFF RECOMMENDATION, AND RESOLUTION**

**Motion**

I move that the Commission approve Coastal Development Permit No. 1-98-51 subject to conditions.

**Staff Recommendation of Approval**

Staff recommends a YES vote and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**Resolution to Approve Permit**

The Commission hereby grants, subject to the condition below, a permit for the proposed development on the grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, is located 100 feet landward from the top of the bank of the stream, is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

**II. STANDARD CONDITIONS**

1. Notice of Receipt and Acknowledgment: The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration: If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Compliance: All development must occur in strict compliance with the proposal set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. Interpretation: Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
5. Inspections: The Commission staff shall be allowed to inspect the site and development during construction, subject to 24-hour advance notice.
6. Assignment: The permit may be assigned to any qualified person, provided the assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
7. Terms and Conditions Run with the Land: These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

**III. SPECIAL CONDITIONS**

- 1) Fence protection and maintenance Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Executive Director, a revised site plan showing the wire fence located 50 feet back (north) from the top of the bank. The applicant shall relocate the fence in accordance with the approved plan. The applicant shall permanently maintain the fence in such a manner that animals would be precluded entry south of the fence towards the river

and shall periodically relocate the fence, as necessary, to maintain a 50-foot separation from the top of the bank. The fence shall not be removed seasonally.

- 2) **Construction in the floodplain/channel** If water flow through the north channel occurs during project construction, blading or pushing of dike material or channel spoils into or across the flowing water of the channel shall not be allowed, to prevent extensive mobilization of fines.
- 3) **Sedimentation and Siltation** Prior to the construction of other development to be performed pursuant to Coastal Development Permit No. 1-98-051, the applicant shall construct a silt catchment basin composed of gravel which is free from mud or silt along with a water filtration barrier composed of filter fabric, at the western downstream end of the project site. Upon completion of the project and after all flowing water in the area is clear of turbidity, the catchment basin along with the trapped sediments shall be removed from the stream.
- 4) **Compaction of baffle trenches** All material excavated to create trenches for the baffles shall be reused and sufficiently compacted to minimize downstream sedimentation and increase bank stabilization.
- 5) **Construction equipment** All heavy equipment shall be stored on the bank shoulder out of the stream channel each day. All internal fluids of heavy equipment and petroleum products in contact with the channel substrate shall be removed and the area cleaned up immediately.
- 6) **Fish and Game required revegetation** Consistent with the terms of the proposed project description, additional riparian and willow mat revegetation shall be implemented as required by the Department of Fish and Game.
- 7) **Project completion** The project shall be completed before October 1, 1998. The applicant may request, in writing, an extension to the construction period. The Executive Director can authorize one extension of the construction period for good cause to extend no later than October 15, 1998. Any other extension requires an amendment to this permit.
- 8) **Compaction of fill** All dike material deposited on the north eroding bank shall be sufficiently compacted to minimize downstream sedimentation and increase bank stabilization.
- 9) **"V"-Shaped Channel** Construction of the "v" shaped channel shall begin at the most downstream location and work upstream until completed.

#### **IV. FINDINGS AND DECLARATION**

The Commission hereby finds and declares as follows:

##### **A. EMERGENCY PERMIT**

Application No. 1-98-51 was submitted in part to obtain Commission approval of a regular coastal development permit for the work authorized on an emergency basis by the Executive Director under Emergency Permit No. 1-97-064-G issued on October 2, 1997. This aspect of the project involves: a) removing an in-channel dike by excavating to existing grade, constructing an eight-foot wide low-flow "V" shaped channel connected to the north channel area, depositing excavated materials against the

vertical north bank, and installing a temporary gravel bar downstream to trap sediments from the excavation work; b) planting willows at the base of the north stream bank; and c) constructing a fence to prevent cattle and sheep intrusion.

A copy of Emergency Permit No. 1-97-64-G is attached as **Exhibit #3**. The emergency permit was granted by the Executive Director on the basis that unauthorized grading and construction of a dike within the active channel of the Garcia River resulted in a significant increase in erosion, siltation and sedimentation of the river channel during the winter storms and high water flows that needed to be controlled to prevent further degradation of habitat values.

In accordance with Section 13142 of the Commission's regulations, Emergency Permit 1-97-64-G required the completion of Coastal Development Permit Application No. 1-98-51 to allow the project to be reviewed by the Commission and the public through the normal hearing process.

**B. AMENDMENT TO FOLLOW-UP CDP APPLICATION NO. 1-98-051**

Since submitting Coastal Development Permit Application No. 1-98-051 on June 26, 1998, the applicant has amended the application to include additional bank stabilization and restoration work because some of the work authorized by Emergency Permit No. 1-97-064-G and carried out by the applicant was eroded during the severe winter of 1997-98. The report by Ayres Associates titled "Long Term Bank Stabilization Plan on the Garcia River at Kendall Ranch, Mendocino County, April 27, 1998<sup>1</sup>," describes the work completed under Emergency Permit No. 1-97-064-G as follows:

...the upstream gravel dike was removed and the material from this excavation was placed against the base of the steep north bank of the river. Also pursuant to the approved plan, riparian plantings and livestock fencing were completed.

The excavated materials were placed at the site referred to in the Ayres Report as Erosion Site 1 and west of Erosion Site 1 (**Exhibit #4**). These materials had been placed prior to the erosion of the northern bank<sup>2</sup>. The riparian plantings and the livestock fence were not affected because they were installed in March 1998 after the erosion of the bank and subsidence of the rains. The riparian plantings were installed at Erosion Site 2 and the livestock fence was installed along the bank at both Erosion Sites 1 and 2. The Ayres Report summarized the existing (as of April 8, 1998) site conditions, in relevant part, as follows:

...There are two areas of new bank erosion on the Kendall Ranch and another upstream of the Kendall Ranch on the south bank. These sites are identified on Plate 4 (**Exhibit #4** of this report). The largest erosion site is at the west end of the lower pasture (Erosion Site 1). The eroded area is approximately 700 feet long and extends approximately 150 feet into the lower pasture at the maximum point. ...

...New bank erosion has occurred at the east end of the lower level pasture (Erosion Site 2). The river bank has eroded approximately 100 feet into the field. ...

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<sup>1</sup> Hereafter referred to as the Ayres Report.

<sup>2</sup> The bank eroded during the rains between November, 1997 and February 1998.

...Immediately upstream of this location and on the opposite bank is the third location of new erosion (Erosion Site 3).<sup>3</sup>

The amended project to restore Erosion Site 1 involves: a) stabilizing approximately 715 feet of bank by reshaping the bank and installing live willow baffles approximately 20 feet wide (10 feet up the bank and 10 feet out into the channel); b) providing habitat cover to facilitate creation of a backwater pool for juvenile Coho salmon; and c) implementing additional riparian and willow mat revegetation upstream of the baffle area.

The proposed amendment to the project incorporates recommendations from the Dept. of Fish and Game and the State Regional Water Quality Control Board. These recommendations are intended to further reduce impacts to the resources of the Garcia River.

Additionally, on August 17, 1998, the applicant's agent stated to Commission staff member Ravi Subramanian that the fence that was erected on top of the north bank as part of the Emergency Permit, has to be taken down during high water seasons because it could be washed away. Thus, the project includes a request to seasonally remove the fence.

### **C. SITE DESCRIPTION AND BACKGROUND**

The applicant proposes to restore the northern bank of the Garcia River on his property, which is located approximately 4.5 river miles upstream of the mouth of the Garcia River in Mendocino County (**Exhibit # 1**). The northern bank has experienced annual erosion during the rainy season from 1995-98. The bank's composition of fine-grained materials has also been a contributing factor to its erosion. Hence, it is likely that the bank has experienced erosion before 1995. The Natural Resources Conservation Service (NRCS) Plan of Work for the Garcia River Watershed (1996) identified Kendall's (applicant) property as a critically eroding streambank area and recommended the use of bioengineering treatments to arrest the erosion and consequent land loss.<sup>4</sup>

On September 11, 1996, the Mendocino County Resource Conservation District (MCRCD) obtained a waiver of coastal development permit requirements (1-96-40W) from the Commission to perform bank stabilization work at the applicant's property for a length of approximately 850 feet to prevent impacts to anadromous fish. According to the MCRCD, the length of eroding bank had increased between 300-400 feet over the two winters prior to 1996. MCRCD had proposed employing live willow mattresses, baffles and stakes placed in trenches and anchored by quarry rocks. The proposed project was in conformance with the Garcia River Watershed Enhancement Plan that had been previously approved by the Commission. The work was completed before mid-October of 1996, but the higher than average runoffs of 1996-97 washed away most of the plantings and eroded the banks.

The Mussetter Report in relevant part, states:

The January 1997 flood on the Garcia River continued to erode the Kendall property and eliminated the bank protection work that had been emplaced in 1996. Approximately 1,500 feet of the right (north) bank of the river is now eroding even though the lower (sic) about 700 feet was heavily vegetated prior to the

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<sup>3</sup> Not on applicant's property.

<sup>4</sup> Report of the Natural and Man-made changes to the Garcia River in the vicinity of the Kendall property following the January 1997 flood by Mussetter Engineering Inc., May 1997 (Hereafter referred to as the Mussetter Report)

January 1997 flood. A local levee (dike) across the base of the point bar immediately upstream of the north eroding bank, that had been authorized<sup>2</sup> in 1995, was breached by the flood flows. The overbank flows caused erosion of an overflow channel across the floodplain.

Following are accounts of the post-January 1997 flood activities and their status after March 1997 from the Mussetter Report and the Ayres Report (Long Term Bank Stabilization Plan on the Garcia River at Kendall Ranch, Mendocino County, by Ayres Associates, April 27, 1998). The Mussetter Report in relevant part, states:

Following the January 1997 flood, the levee was replaced across the base of the point bar and the overbank scour channel was filled. In-channel bar vegetation (alders and willows) was removed mechanically at both the upstream and downstream ends of the reach to reduce the hydraulic resistance within the reach and to maintain sediment transportation through the reach. A berm was constructed across the post-1997 flood channel near the downstream end of the point bar and the channel was moved over to the south side of the valley.... Because the reconfigured channel was about half the required channel width, the berm breached during a minor flood event in mid-March 1997.

The Mussetter Report in relevant part, states:

Following the damage in January 1997, the landowner realigned the main river channel away from the north bank to a historic alignment on the south side of the river. This channel was not large enough and the river partially recaptured the north alignment in March 1997 creating a split flow situation.

On February 27, 1997, Ed Ramos, Warden of the California Dept. of Fish and Game wrote a Preliminary Field Investigation Summary describing his observations after visiting the applicant's property on February 24, 1997. In his Summary Ramos states, in relevant part:

... I went to the Kendall Ranch and observed a bulldozer operating in the river channel. Downstream of the dozer was a (sic) constructed gravel levee that diverted the original flow channel from the north bank to the new south bank flow. The length of the channel was about ¼ mile. Pushed gravel and scrape marks of a dozer blade were evident and numerous. The total length of river bank area and channel affected was about ½ mile. ...

I walked the diversion site and confirmed the original river course had been changed to the south bank by construction of a gravel levee about 1000 ft. long 10 ft. high and varied width 15 to 40 ft. wide (sic). Upstream of the levee was several thousand cubic yards of additional pushed gravel in the channel and bank, designed to reinforce areas of eroded riverbank to prevent high water overflow toward Kendall's property.

... Aerial photographs of the Kendall Ranch taken on 2-25-97, show discoloration in the waters downstream of the project may suggest possible evidence that silting occurred. Reports of muddy waters from sport fishermen in the area of the Stornetta Ranch during 2-21 to 2-23 of the final days of their diversion construction also support silting of state waters downstream of their activity. I found no dead fish or mammals in the affected area or downstream. I have received a report of the presence of redds, possibly steelhead, downstream of the Kendall ranch.

In the same Summary, Ramos listed the estimate of the volume of disturbed gravel, i.e., fill in the channel dike and upstream bank reinforcement as follows:

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<sup>2</sup> The report does not specify the origin of this authorization. The Coastal Commission did not authorize any structure(s) referred to in this statement.

1) Constructed gravel levee diversion:

The volume of the gravel dike was estimated at 6,000 cu. yards.

The volume of gravel in the channel disturbed to create the diversion was estimated at 28,000 cu. yards.

2) Upstream riverbank reinforcement volume of pushed gravel was estimated at 5,000 cu. yards.

A conservative estimate of total cu. yards of disturbed gravel in this violation was,  $5,000+28,000 = 33,000$  cu. yards in  $\frac{1}{2}$  mile stretch of Garcia River.

Michael Rugg, Water Quality Biologist of the California Dept. of Fish and Game met with Warden Ed Ramos on February 28, 1997, at the Kendall Ranch to investigate the effects of the instream development on fishery resources and habitat. Rugg's Report outlines the various fishery resources and their life cycle patterns, in applicable part, as follows:

**Fishery resources of the Garcia River**

The Garcia River system provides habitat for a wide range of anadromous and resident species of cold and warm-water fish (Table III); most notable are coho salmon and steelhead trout. There are approximately 38 mile of coho salmon habitat and 41 miles of steelhead habitat. The selection and use of various habitats is principally based upon species-specific habitat preferences related to water temperatures, concentration of dissolved oxygen, suitability of spawning habitat, and food resources. ...

...Coho, currently listed as a Species of Special Concern (FESA, 1973), begin spawning runs from the ocean in September to mid-October as stream flows increase from fall storms. Spawning can last until early March; however, peak spawning is generally between November and January. Preferred spawning habitats are at the heads of riffles or the tails of pools where flows transition from smooth to turbulent, providing good aeration for the eggs. The nests (redds) are excavated in beds of loose, silt-free, coarse gravel, with cover nearby for the adults. ...A female will build series of redds while moving upstream. Each redd will contain a few hundred eggs. ...both sexes die after spawning. ...The eggs hatch following an incubation period of 8 to 12 weeks. Sac-fry remain in the gravel until the yolk-sacs have been absorbed (4-10) weeks. Fry seek shallow water along the stream margin and begin to school shortly after emergence. As they mature, they are termed "parrs" which seek individual territories. Juveniles prefer deep (3+feet), well shaded pools with plenty of overhead cover. During the spring (March-April), one-year old parr begin out-migration to the sea.

...Steelhead trout have a similar life cycle. Spawning takes place from November to June. Rearing occurs year-round, with majority of juveniles spending two years in tributary, main stem, and/or estuarine habitats before entering the ocean. ...Steelheads spend one to four years at sea before returning to spawn. Unlike salmon, steelheads do not always die after spawning.

...The river reach on the Kendall Ranch is commonly used by steelhead for spawning and rearing, and as a migratory corridor for upstream and downstream migrating coho salmon and steelhead.

Rugg conducted further site visits and collected disturbed and undisturbed sediment samples from the Garcia River. These samples were processed in the Baxter Healthcare Corporation laboratory in McGaw Park Illinois for particle size analysis. The data sheets and evaluations are included in Rugg's report of September 17, 1997, titled "Kendall Ranch - Garcia River Siltation Investigation."



To prevent and minimize continuing impacts to resources of the river, the respective agencies requested the landowner to implement certain restorative measures before the onset of the 1997-98 rainy season. The landowner agreed to undertake these measures and applied for an emergency permit for the work. The Executive Director granted Emergency Permit No. 1-97-64-G (**Exhibit #3**) to the applicant for the: a) removal of the in-channel dike consisting of: 1) excavation to existing grade, 2) construction of an eight feet wide low-flow "V" shaped channel connected to the north channel area, 3) deposition of excavated materials against the vertical north bank, and 4) installation of a temporary gravel bar downstream to trap sediments from the excavation material; b) planting of willows at the base of the north stream bank; and c) construction of a fence to prevent cattle and sheep intrusion.

#### **D. PROJECT DESCRIPTION**

The proposed restoration work consists of the following six elements. Some of this development has already occurred.

##### **a) Removal of in-channel dike**

The proposed project includes the removal of the gravel dike through excavation to existing grade. The excavated materials will be placed on the northern eroding bank at Erosion Site 1 and west of Erosion Site 1. The materials will be sufficiently compacted to minimize downstream sedimentation. An eight feet wide low-flow "V" shaped channel connected to the northern channel area will be constructed to stabilize the channel and prevent further erosion of the north bank. A temporary gravel bar will be installed downstream in the northern channel to trap sediments from the excavated materials.

##### **b) Planting of willows at the base of the north stream bank**

Willow sprigs will be planted on the northern bank at Erosion Site 2 to prevent erosion and provide shade. Additional riparian and willow mat revegetation will be implemented as required by the Department of Fish and Game.

##### **c) Construction of a fence to prevent livestock intrusion**

A post and wire fence will be constructed along the top of the northern bank to keep livestock from entering the site.<sup>5</sup>

##### **d) Bank stabilization**

**Exhibit #5** illustrates the Live Willow Baffle system of stabilization. Approximately 715 feet (length) of the damaged north bank at Erosion Site 1 will be stabilized. The cut bank will be reshaped by skimming the surface of the bank to a slope angle of 2.5 : 1. The lower 100 feet of the bank will be sloped to an incline of 10 : 1 to avoid having the high flow vector slam across channel into the opposite bank, which is currently well vegetated. After the bank is shaped, 17 Live Willow Siltation Baffles will be installed to

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<sup>5</sup> On August 17, 1998, the applicant's agent stated to Commission staff member that the fence has to be taken down during high water seasons because it could be washed away.

stabilize the bank. Each baffle will be approximately 12 feet long and will be separated from the next one by 30 feet. The baffles will be 20 feet wide, with half the structure extending landward from the edge of the reformed bank and half extending into the bare gravel flood plain. The baffles consist of numerous willow branches buried in a trench 3 to 5 feet deep, perpendicular to the bank. The excavated material is pushed back into the trench leaving 3 to 5 feet of flexible branch tips extending above grade and tipped downstream at an angle of 45 to 60 degrees. The trench will be covered with small boulders to provide additional stability.

**e) Provision of habitat cover**

In the stretch of the last 100 feet of bank at Erosion Site 1 are Four downed mature alder trees that fell in the 1997-98 floods are scattered along the gravel bar along the western most 100 feet of bank at Erosion Site 1. The trees will be pushed against the cut bank and buried in the gravel bank shaping process. The outermost branch tips will be left sticking out to provide additional habitat cover, which will facilitate creation of a backwater pool for juvenile Coho salmon.

**f) Time for construction and completion**

The applicant proposes to complete the project in ten days, before October 1, 1998

**E. FILL IN COASTAL WATERS AND PROTECTION OF ENVIRONMENTALLY SENSITIVE HABITAT**

The Coastal Act defines fill as including "earth or any other substance or material ... placed in a submerged area." The proposed project includes the placement of fill in coastal waters in the form of 17 live willow siltation baffles. Ten feet of these twenty-foot-long baffles will extend into the gravel floodplain. The encroachment of each baffle will be about 120 sq. ft. with the total encroachment resulting in an area of 2,040 sq. ft.. Water will reach the baffles during high water season.

Several sections of the Coastal Act address the placement of fill within coastal waters and the protection of environmentally sensitive habitat. Section 30231 provides as follows, in applicable part:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes ... shall be maintained and, where feasible, restored...

Section 30233(a) and (d) provide as follows, in applicable part:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

(d) Erosional control and flood facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

The above policies set forth a number of different limitations on what fill projects may be allowed in coastal waters. For analytical purposes, the limitations can be grouped into four general categories or tests. These tests are:

1. that the purpose of the fill is limited to one of eight uses allowed under Section 30233, to serve coastal dependent uses;
2. that the project has no feasible less environmentally damaging alternative;
3. that adequate mitigation measures to minimize the adverse environmental impacts of the proposed project have been provided; and

4. that the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible.

1. **Permissible Use for Fill**

The first general limitation set forth by the above referenced Chapter 3 policies is that any proposed fill can only be allowed for certain limited purposes. Under Section 30233(a), fill in coastal waters may only be performed for any of eight different uses, including under subsection (7), "Restoration purposes."

The proposed project consists of the placement of live willow siltation baffles in the gravel flood plain. The willow baffles will allow sediment to deposit to re-establish new banks, providing the opportunity for riparian vegetation to establish and restore the stability of the bank and wildlife habitat values. The project also involves the restoration of riparian vegetation along the northern bank that was lost through grading and erosion. Therefore, the Commission finds that the purpose of the fill is consistent with subsection (7) of Section 30233(a) of the Coastal Act.

2. **No Feasible Less Environmentally Damaging Alternatives**

A second general limitation set forth by the above referenced Chapter 3 policies is that any proposed fill project must have no less environmentally damaging feasible alternative.

There are no apparent alternatives that would be less environmentally damaging. The 12-foot-long, 10-foot-wide (in the gravel plain) 17 willow baffles are the minimum required to restore and stabilize the 715-foot stretch of the northern bank. They are designed to avoid a continuous length of fill by spacing them at 30 foot intervals. This "soft vegetation" approach will provide for the restoration of the bank in a manner compatible with existing landform and vegetation. Additionally, as proposed by the applicant this project can be accomplished within 10 days or before October 1, 1998, to prevent impacts to the spawning cycle of the Coho Salmon and Steelhead Trout. The spawning period is from November to March for both fish.

The no-project alternative would leave the damaged bank unprotected. Additionally, the river would most likely recapture or continue to erode in a northward direction affecting portions of the north bank, pasture and mature vegetation. Furthermore, if the northern bank continues to collapse, the channel will become more flat and non-vegetated. Water will flow more slowly and cause adverse conditions for migratory and resident fish or other organisms.

The project cannot be located elsewhere because the restoration work is contextual. Restoring and stabilizing another part of the bank will leave the damaged portion unprotected and the consequences would be similar to that of not performing any project. The only advantage would be that another part of the bank is stabilized or re-stabilized.

In developing plans for the restoration, the applicant and regulatory agencies discussed various alternatives. One alternative was to enlarge the south channel and direct all the flow through the south channel. This alternative was deemed unacceptable because it would involve massive amounts of earthwork and/or excavation, which could not be accomplished in a short period before October 15, 1998.

"Hard armoring" was also considered to be infeasible due to the length of river bank requiring stabilization. Due to the difficulty in predicting where future erosion will occur, the option would

necessitate armoring the entire stretch of the northern bank to protect it from erosion. This development would require much more extensive earthwork and fill than the proposed project and thus would be a much more environmentally detrimental solution.

Mere "buttressing" of the eroded bank by pushing gravel and other instream sediments against it has proved to be unsuccessful as evident after the rains in the past few years. This option might work only with extensive planting of riparian vegetation, erosion control and maintenance. However, the alternative would be more environmentally damaging than the proposed project as it would result in significantly greater sedimentation of the river with fine-grained sediments that would erode from the material pushed against the bank.

Therefore, the Commission finds that the proposed project using live willow baffles is the least environmentally damaging alternative as required by Section 30233(a).

### **3. Mitigation for Adverse Impacts**

A third general limitation set forth by Sections 30231 and 30233(a) is that adequate mitigation to minimize the adverse impacts of the proposed project on habitat values must be provided. Section 30233(d) requires that material removed from erosional control facilities may be placed at appropriate points on the shoreline where feasible mitigation measures have been provided to minimize adverse environmental effects. The method of placement, time of year of placement, and sensitivity of the placement area shall be considered.

The proposed restoration project is intended to restore habitat values degraded by previous unauthorized activities. However, the restoration project itself will create its own sedimentation and other impacts on coastal resources that must be mitigated with conditions imposed to eliminate, reduce or off-set such impacts to coastal resources.

The proposed project involves various modifications to the river. Some of these include shaping the bank, digging and filling trenches in the flood plain, placing boulders in the trenches and planting willow branches. These activities would involve mobilization of heavy equipment, soil and boulders in the floodplain or active channel (when it rains) and result in increased sedimentation. The effects of streambed modification are outlined in Rugg's Report, in relevant part, as follows:

...The river reach on the Kendall Ranch is commonly used by steelhead for spawning and rearing, and as a migratory corridor for upstream and downstream migrating coho salmon and steelhead.

#### **Effects of Streambed modification**

Modification of streambed habitat by addition of or re-suspension of fine sands, silt or clay-sized particles poses one of the most serious threats to the survival of many salmon and trout species. The streambed is the incubator for developing eggs; it provides vital cover or refuge for developing fry, and provides habitat for the bulk of the food organisms required by young salmon, trout and other fish for survival. The success of this interdependent relationship is directly related to the presence of "clean", suitably sized streambed materials.

..."Salmonids" (trout and salmon species) deposit their eggs in nests ... which the female excavates in the gravel with her tail. During the process, the sediment profile is locally altered to remove fine sand and silt particles which move downstream. After spawning, the redds are carefully back-filled by the female to

insure that water is allowed to flow continuously over and around developing eggs, thereby satisfying their need for respiratory oxygen as well as essential flushing of metabolic wastes.

The presence of fine sediments in spawning beds dramatically decreases the permeability of the gravel and thus limits the amount of oxygen available for developing eggs. ...reduced particle size also has a dramatic negative effect upon the success of salmonid reproduction. Thus, deposition of "fines" can be deleterious to fish reproduction and survival.

Fine sediments need not actually infiltrate the interstitial spaces to be deleterious to fishery resources. Sands, silts and clays can also reduce the survival of fry by physical entrapment, i.e., impeding their emergence from the gravel.

Fry, exposed to fines following emergence, may be affected by the direct loss of preferred habitat. Crevices and interstices in gravel deposits are used as cover by young fish to avoid predation. ...Additionally, spaces between boulders and rubble, in pools and runs, may be filled, reducing cover for larger trout. Trout unable to find sheltered resting places in streams become so stressed they soon die of exhaustion.

The mainstay of the diet of salmonid fishes is composed of insects such as stoneflies, mayflies or caddflies. These insects develop on the clean surfaces of large gravels and cobbles, and depend to a large degree on turbulent water around these rocky surfaces to bring them food. The deposition of sands, silts or clays, around and over streambed rubble, reduces both the area upon which aquatic insects may develop, as well as impairing the turbulence required for effective feeding.

Once deposited, fine sediments often become compacted and defy transport, even under very heavy stream-flow conditions. ...Once this has occurred, adult fish are no longer able to dig nests to lay their eggs. It may take as long as five to ten years for gravels to recover their original spawning potential.

Suspended particles in the sand-silt size class ( $\leq 0.85\text{mm}$ ) seriously compromise respiratory tissues. ...natural weathered sediments tended to clog the spaces between sensitive gill tissue, while un-weathered mineral solids, coat the actual gill filaments, and thus impede water contact and proper gas exchange, resulting in asphyxiation.

Silt and clay-sized particulate materials, which may not rapidly settle, significantly increases the water's "cloudiness", or "turbidity" to the detriment of the fish. Salmonids are sight feeders, and as such, are absolutely dependent upon water clarity for success in finding food.

Other aquatic species can be equally and adversely affected by the deposition of fine particulates. Salamanders, amphibians, and a host of insect species can become physically entrapped, along with fish fry and incubating eggs beneath cemented gravels and rocks.

The in-channel dike that was installed to divert flow into the south channel will be removed. Significant increases in siltation and sedimentation are possible because the dike contains unconsolidated erosive berm materials. In addition, reshaping of the bank will be done using a bulldozer and the baffles will be installed using a backhoe loader. Such construction in the channel will cause increased siltation and sedimentation. Such increases in sedimentation cause deleterious effects on fishery and other aquatic resources of the river. Use of a bulldozer within the flowing channel of the stream would disturb the naturally sorted substrate. Silts and clay-sized particles which compose the dike, would become re-suspended in significant quantities thereby causing turbidity and sedimentation downstream.

The Commission finds it necessary to condition the permit to mitigate for the increased sedimentation and associated impacts on coastal resources that will result from the project. Special Condition No. 2 prohibits blading or pushing of dike material or channel spoil into or across the flowing water of the old channel (north channel). Special Condition 3 of the permit requires the construction of a silt catchment basin at the western downstream end of the project site before construction of other development to be performed pursuant to the permit. The basin shall be composed of gravel free from mud or silt along with a water filtration barrier composed of filter fabric. Upon completion of the project and after all flowing water in the area is clear of turbidity, Special Condition No. 3 of the permit also requires the removal of the catchment basin along with the trapped sediments. Special Condition No. 4 requires all material excavated to create trenches for the baffles to be reused and sufficiently compacted to minimize downstream sedimentation and increase bank stabilization.

Special Condition No. 8 of the permit requires all dike material deposited on the northern bank to be sufficiently compacted to minimize downstream sedimentation and increase bank stabilization. Special Condition No. 9 of the permit requires the construction of the "V" shaped channel to begin at the downstream location of the project and proceed upstream until completed. Special Condition No. 5 of the permit requires all heavy equipment to be stored on the bank shoulder out of the stream channel each day. It also requires the removal of all internal fluids of heavy equipment and petroleum products in contact with the channel substrate and cleaning up the area.

The applicant proposes to complete the project in ten days, before October 1, 1998, to avoid the spawning period of Salmonids. Completion of the project by that date will also avoid the rainy months of November through March, which is the period when the water is high and the sedimentation impacts of construction within the river would be magnified. Therefore, to further minimize sedimentation and avoid impacts to spawning Salmonids, the Commission attaches Special Condition No. 7 which requires completion of the project before October 1, 1998. The applicant may request, in writing, an extension to the construction period. The Executive Director can authorize one extension of the construction period to extend no later than October 15, 1998. Any other extension requires an amendment to this permit. Only as conditioned, the Commission finds the project consistent with resource protection and erosional control policies of Sections 30231 and 30233 of the Coastal Act.

To off-set the sedimentation that will result from the project despite the measures required by Special Condition Nos. 2-4 and 7-9 to reduce sedimentation, the Commission imposes Special Condition No. 1. This condition requires that the wire fence proposed by the applicant be permanently maintained by the applicant at a distance of 50 feet from the bank edge. The fence will act in a number of ways to reduce sedimentation of the river at the project location to offset the projects sedimentation impacts. First, the livestock fence will allow the riparian vegetation to be planted to take hold. The riparian vegetation will take a minimum of 3-5 years to mature and provide sufficient protection to the bank and cover for the habitat. The fence will keep animals away from riparian saplings and allow for the plants to take root. Second, the fence will prevent trampling of the restored area by restock which would result in further sedimentation. Similarly, with the fence in place, the baffles and the bank will not be stabilized by the hooves of livestock as the fence will preclude entry of the animals.

The proposed live willow baffles system would be 20 feet wide, with 10 feet extending into the bank perpendicular to the river. The fence at its present location at the edge of the bank would leave portions of the baffle system, which will extend 10 feet landward from the bank edge unprotected from trampling by the livestock. In addition the proposed restoration area would be prone to more erosion and therefore increased sedimentation. Therefore, to ensure protection of the willow baffles and the restoration area,

so that reductions in sedimentation can be achieved to offset sedimentation impacts caused by work in the floodplain/channel, the Commission finds it necessary to specify in Special Condition No. 1 that the fence be relocated at least 50 feet north of its current proposed location on top of the bank and to prohibit its seasonal removal. Additionally, the applicant must periodically relocate the fence as necessary, to maintain the 50-foot separation from the top of the bank as shown in **Exhibit #2**. Only as conditioned, the Commission finds the project consistent with Sections 30231 and 30233 of the Coastal Act.

The applicant's agent stated to Commission staff that the fence has to be taken down during high water seasons because it could be washed away. The Commission does not agree that the fence should be allowed to be removed during the highwater season. The requirement that the fence be relocated 50 feet away from the bank edge will reduce the likelihood of the fence being washed away during flooding. Even if the fence were to be washed away during an extraordinary flood, the Commission finds that retaining the fence during high water season is necessary to protect the riparian vegetation and the slope/bank from animal intrusion.

The Department of Fish and Game is requiring the applicant to provide additional riparian and willow mat revegetation on the northern bank upstream of the baffles. The additional revegetation work is included in the submittal by the applicant, dated August 7, 1998, which amended the project description in the application submitted as a follow-up to Emergency Permit No. 1-97-064-G. The additional riparian and willow matting is necessary to replace the vegetation that was lost through erosion and flooding and would provide for lost vegetative cover, thermal shading and bank stabilization. To ensure that the applicant carries out this work as proposed so that the anticipated habitat enhancements result, the Commission attaches Special Condition No. 6 which requires the applicant to implement the additional riparian and willow mat revegetation as required by the Department of Fish and Game.

As conditioned, the Commission finds that the project will provide feasible mitigation measures that will adequately mitigate the impacts of the proposed project on the filling of the floodplain and is therefore consistent with the third test for approvable fill projects set forth in Section 30233 of the Coastal Act.

#### **4. Maintenance and Enhancement of Habitat Values**

The fourth general limitation set by Sections 30231 and 30233(a) is that any proposed fill project shall maintain and enhance the biological productivity and functional capacity of the habitat, where feasible.

The project includes planting of willows at the northern bank to stabilize the bank at Erosion Site 2 and provide cover and thermal protection to aquatic life, thereby increasing habitat value. The project will restore vegetation that was lost in the previous years through erosion. The riparian vegetation would also assist in preventing erosion and thereby sedimentation or siltation downstream. Therefore, the Commission finds that the proposed project will maintain and enhance the biological productivity and functional capacity of the Garcia River, consistent with Sections 30231 30233 of the Coastal Act.

#### **F. PUBLIC ACCESS**

Section 30210 of the Coastal Act requires maximum access and recreational opportunities to be provided for all the people consistent with the need to protect public rights, rights of private property owners and natural resource areas. Section 30211 of the Act requires that development not interfere with the public's



right to access gained by use or legislative authorization. In applying Sections 30210 and 30211, the Commission is also limited by the need to show that any denial of a permit application based on this section, or any decision to grant a permit subject to special conditions requiring public access is necessary to avoid or offset a project's adverse impact on existing or potential access.

The Garcia River is a coastal resource subject to the Public Trust. The river is a navigable stream used by boaters and kayakers as an accessway in winter. The river is also used for water-contact recreation like swimming, boating, kayaking and sport fishing. In addition, it is used for educational trips to learn about the environment.

The proposed restoration project will enhance opportunities for navigation and access for recreation through bank stabilization and construction of a fence preventing intrusion from livestock. In addition, restoration and provision of riparian vegetation will enhance the environment and the recreational uses enjoyment of the resource. Furthermore, the short 10 day construction period will minimize any hindrance of boating and kayaking. Therefore, the Commission finds that the proposed project which does not include any new public access, is consistent with Sections 30210 and 30211 of the Coastal Act.

#### **G. CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a coastal development permit application to be supported by a finding showing the application, modified by any conditions of any approval, be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project has been conditioned to be found consistent with the resource protection policies of the Coastal Act. The attached mitigation measures will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment.

Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

#### **H. VIOLATION**

The applicant performed bank and streambed alteration on or about February 16, 1997, and received Emergency Permit No. 1-97-064-G on October 2, 1997, to commence restorative work necessitated by these activities. This project continues the restoration of the bank and stream habitat. Although development has taken place prior to the submission of this permit application, consideration of the application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Review of this permit does not constitute a waiver of any legal action with regard to any violation of the Coastal Act that may have occurred; nor does it constitute an admission as to the legality of any development undertaken on the subject site without a permit.

## **I. OTHER AGENCIES' ISSUES**

The proposed project conforms to the regulatory requirements of other agencies. The requirements of the respective agencies are listed below:

1. Cleanup and Abatement Order No. 97-56 (**Exhibit # 6**) issued by the California Regional Water Quality Control Board required the applicant to implement stream habitat restoration and bank stabilization measures. The applicant was also required to prepare a Ranch Management Plan which incorporates site specific sediment reduction issues.
2. Streambed Alteration Agreement No. 0733-97 (**Exhibit #7**) between the applicant and Department of Fish and Game, required the applicant to implement stream habitat restoration and bank stabilization measures. The agreement also required a fishery-monitoring plan. The applicant has contracted with Alice Rich and Associates to perform a Salmonid Monitoring Plan to assess timing and use of the project area by coho salmon and steelhead trout, as compared with other comparable habitats within the Garcia River. **Exhibit #8** shows the scope of the monitoring plan in detail. It also shows the work that has been performed by Alice Rich and Associates as of August 14, 1998.
3. The U. S. Environmental Protection Agency, at the request of the Corps of Engineers, issued a Findings of Violation and Compliance Order (EPA Docket No. 404-09a-97-015) (**Exhibit #9**) which required the applicant to develop and implement a stream habitat restoration plan. The applicant, pursuant to Emergency Permit No. 1-97-064-G, undertook some requirements of the Order. Other elements of the order will be implemented as part of the proposed project and the Streambed Alteration Agreement.

This permit does not obviate the need to obtain necessary authorizations and/or permits from other agencies.

## **EXHIBITS**

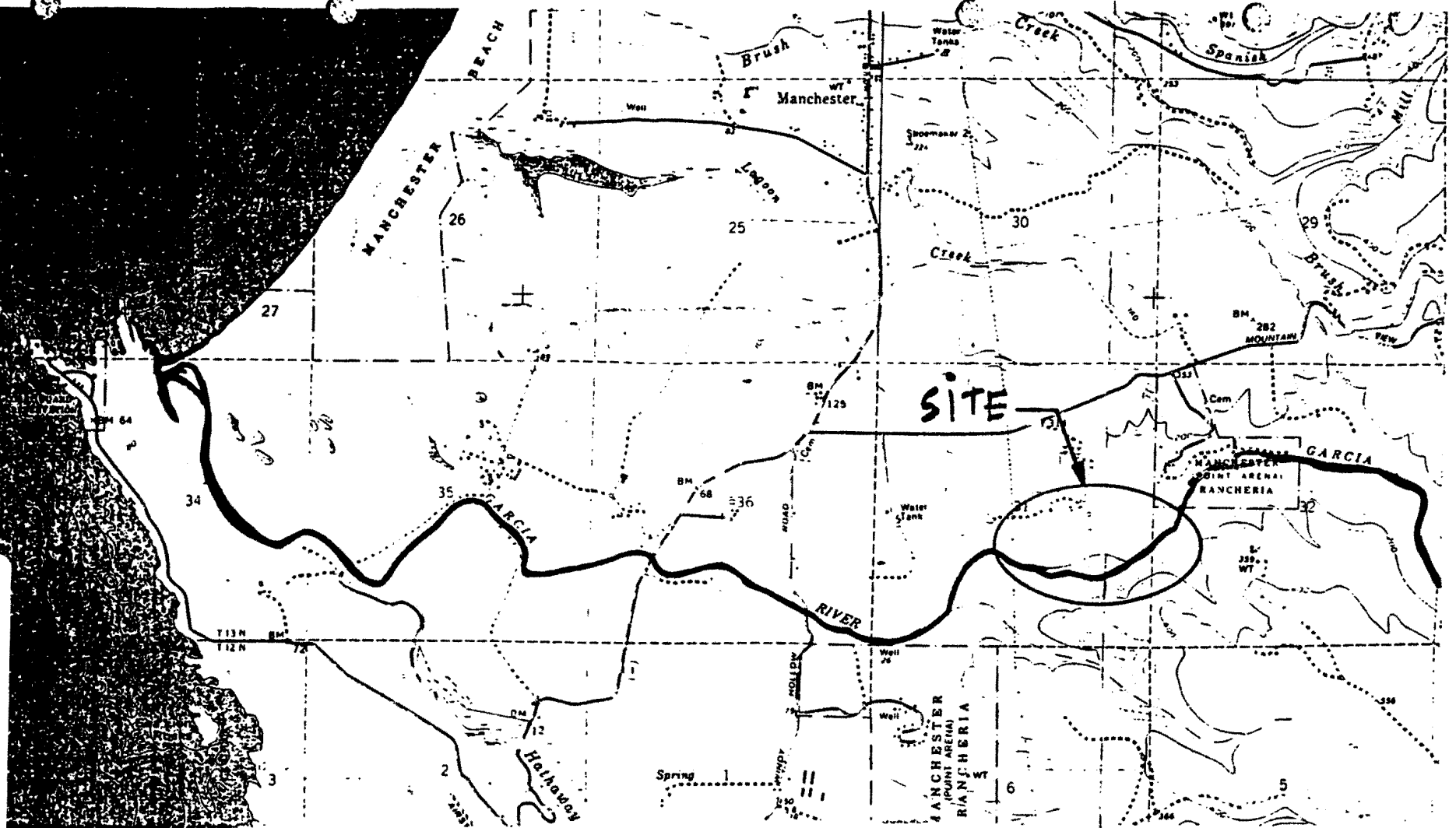
1. Site map
2. Plan of bank with fence at 50' north of proposed location.
3. Emergency Permit No. 1-97-064-G
4. Plate 4 of Ayres Report showing erosion along the bank
5. Live Willow Baffle System
6. Cleanup and Abatement Order No. 97-56

Application 1-98-051  
Kendall Trust

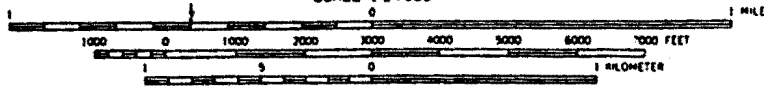
7. Streambed Alteration Agreement No. 0733-97
8. Salmonid Monitoring Plan
9. Findings of Violation and Compliance Order (EPA Docket No. 404-09a-97-015)

Exhibit #1  
1-98-051

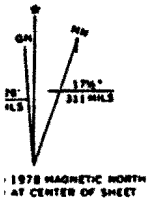
Page 1 of 2  
Kendall



SCALE 1:24 000



CONTOUR INTERVAL 40 FEET  
DOTTED LINES REPRESENT 20 FOOT CONTOURS  
NATIONAL GEODETIC VERTICAL DATUM OF 1929  
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOWER LOW WATER  
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE MEAN RANGE OF TIDE IS APPROXIMATELY A FEET



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



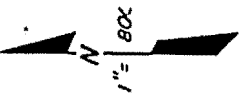
QUADRANGLE LOCATION

ROAD CLASSIFICATION  
Medium-duty ——— Light duty ———  
Unimproved dirt .....  
○ State Route

POINT ARENA, CALIF.  
NW 1/4 POINT ARENA 15' QUADRANGLE  
38123-H6-TF-024

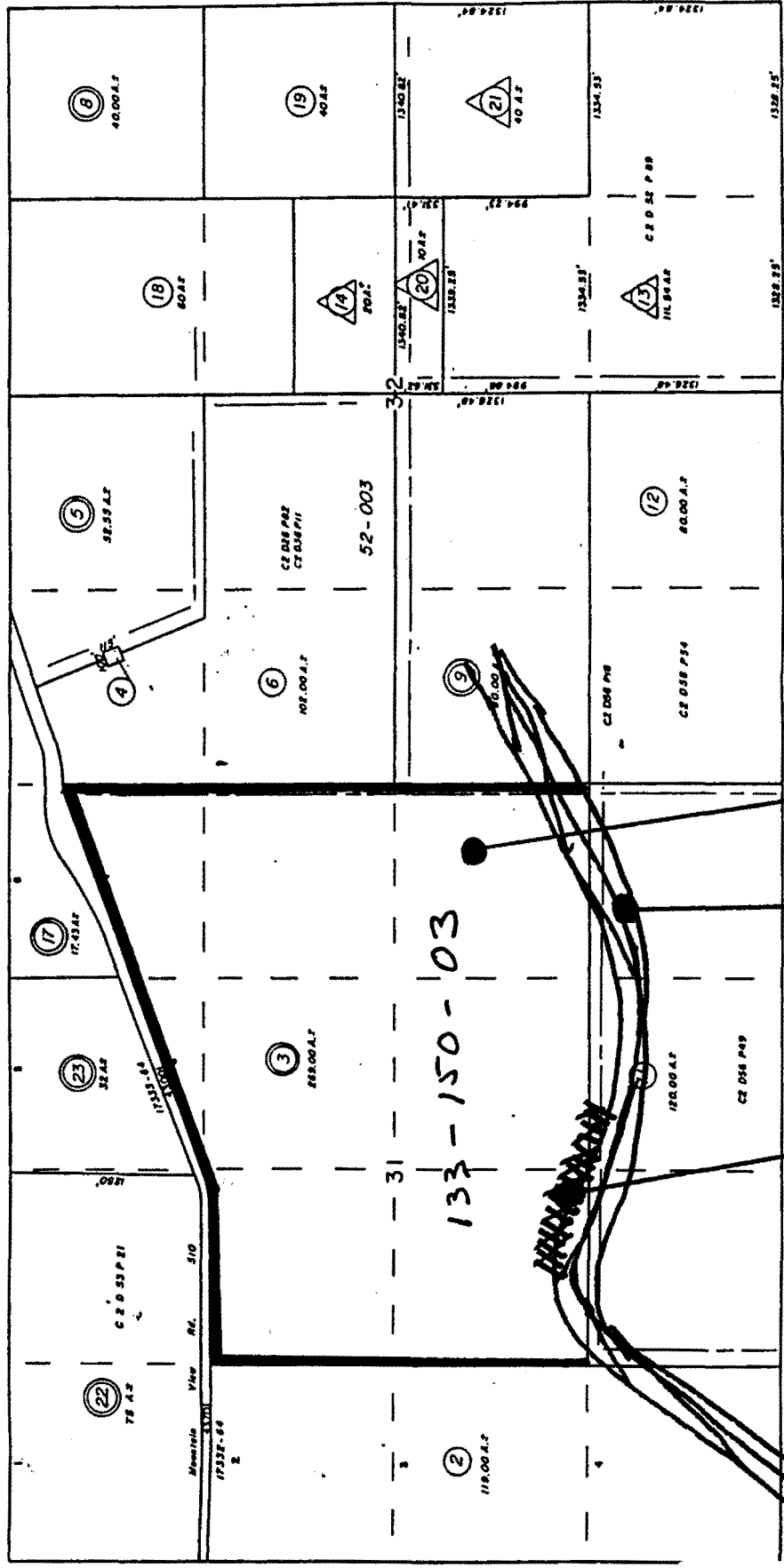
Revisions shown in purple compiled from aerial photographs  
taken 1976. This information not field checked. Map edited 1978

1960  
PHOTOREVISED 1978  
DMA 1261 I NW-SE 195



Assessor's Map  
County of Mendocino, Cal.  
March, 1973

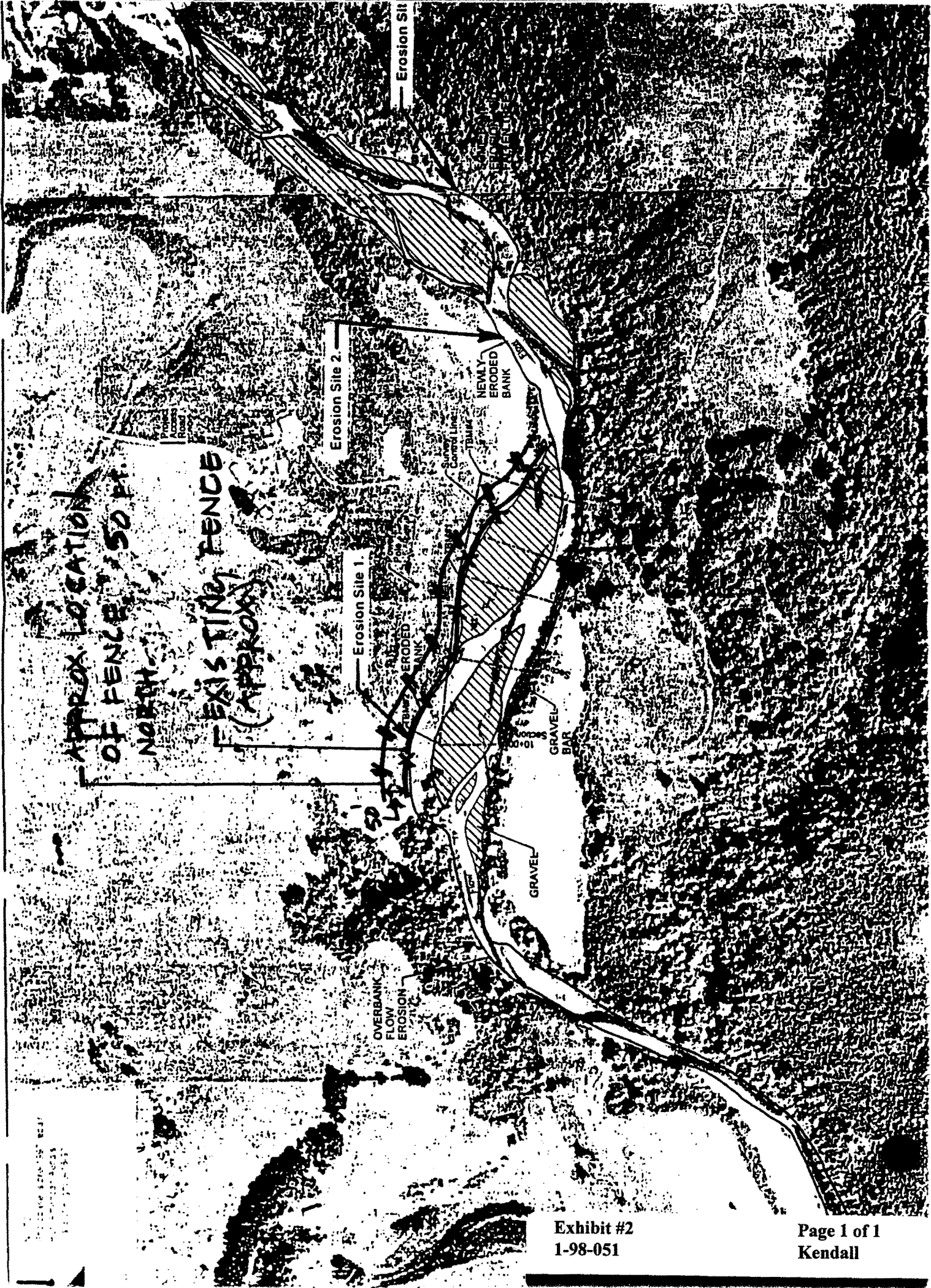
NOTE: This map was prepared for  
assessment purposes only. No liability  
is assumed for the data delineated  
hereon.



Bk 27 17

Bk 27 16

KENDALL RANCH  
APPROX. LOCATION OF GARCIA RIVER  
APPROX. LOCATION OF PROJECT



## CALIFORNIA COASTAL COMMISSION

NORTH COAST AREA

400 MONT, SUITE 2000

SAN FRANCISCO, CA 94105-2219

(415) 904-5260

**EMERGENCY PERMIT**

Russell Caughey  
P.O. Box 277  
Manchester, CA 95459

Date: October 2, 1997  
Emergency Permit No. 1-97-064-G

## LOCATION OF EMERGENCY WORK:

Garcia River adjacent to Kendall Ranch, Manchester (Mendocino County)  
(APN(s) 133-150-03)

## WORK PROPOSED:

Removal of in-channel dike previously installed to divert flow into the south channel of the Garcia River, consisting of excavation of the dike to existing grade with a low-flow channel of approximately eight feet wide (with a "v" shaped bottom) connected to the north channel area. Excavated materials will be placed up against the vertical banks on the north side of the river. The south channel will be left as the primary flow path. A temporary gravel bar will be installed downstream of the excavation to trap sediments from the excavation materials. The project also includes the planting of willows at the base of the north stream bank adjacent to the project site, and the construction of a fence to prevent sheep/cattle from entering the site.

This letter constitutes approval of the emergency work you or your representative has requested to be done at the location listed above. I understand from your information and our site inspection that an unexpected occurrence in the form of unauthorized grading and construction of a dike within the bankfull channel of the Garcia River which will result in significant increases in erosion, siltation, and sedimentation of the river channel during coming winter storms and high water flows requires immediate action to prevent or mitigate loss or damage to life, health, property or essential public services. 14 Cal. Admin. Code Section 13009. The Executive Director of the Coastal Commission hereby finds that:

- a) An emergency exists which requires action more quickly than permitted by the procedures for administrative or ordinary permits and the development can and will be completed within 30 days unless otherwise specified by the terms of this permit;
- b) Public comment on the proposed emergency action has been reviewed if time allows; and
- c) As conditioned, the work proposed would be consistent with the requirements of the California Coastal Act of 1976.

Emergency Permit Number: 1-97-064-G

Date: October 2, 1997

Page 2 of 4

The work is hereby approved, subject to the conditions listed on the attached page.

Sincerely,

PETER M. DOUGLAS  
Executive Director



JO GINSBERG  
Coastal Planner

cc: Local Planning Department  
Rawles, Hinkle, Carter, Behnke & Oglesby, Attn: John A. Behnke

Enclosures: 1) Acceptance Form; 2) Regular Permit Application Form -



**Emergency Permit Number: 1-97-064-G**

**Date: October 2, 1997**

**Page 3 of 4**

**CONDITIONS OF APPROVAL:**

1. The enclosed Emergency Permit Acceptance form must be signed by the PROPERTY OWNER and returned to our office within 15 days.
2. Only that work specifically described in this permit and for the specific property listed above is authorized. Any additional work requires separate authorization from the Executive Director.
3. The work authorized by this permit must be completed within 30 days of the date of this permit.
4. By June 1, 1998, the permittee shall apply for a regular Coastal Permit to have the emergency work be considered permanent. The permittee may apply for a regular Coastal Permit that encompasses only the emergency work, or may apply for a Coastal Permit that encompasses the emergency work and also additional restoration and/or streambank stabilization measures.
5. In exercising this permit, the applicant agrees to hold the California Coastal Commission harmless from any liabilities for damage to public or private properties or personal injury that may result from the project.
6. This permit does not obviate the need to obtain necessary authorizations and/or permits from other agencies (i.e. Dept. of Fish & Game, U.S. Fish & Wildlife, U.S. Army Corps of Engineers, State Lands Commission.)
7. No operations, including cleanup of operations at the site, shall be conducted beyond October 15, 1997, unless evidence is submitted to the Executive Director of authorization by the Department of Fish and Game.
8. Work within the flowing channel (either north or south) shall be limited to that necessary to construct diversion structures. If water flow through the north channel cannot be eliminated, a culverted access road may be constructed for use of a rubber tire skip loader and dump trucks to haul the remaining unconsolidated material to the receiving bank. Blading and pushing of dike material or channel spoil into or across the flowing water of the old channel (north channel) shall not be allowed as this will cause extensive mobilization of fines.
9. Diversion of existing water flow into the north channel at the upstream dike end may be accomplished by constructing a temporary small berm using site gravel material, and may be assisted with use of filter fabric or plastic sheeting as needed.

**Emergency Permit Number: 1-97-064-G**

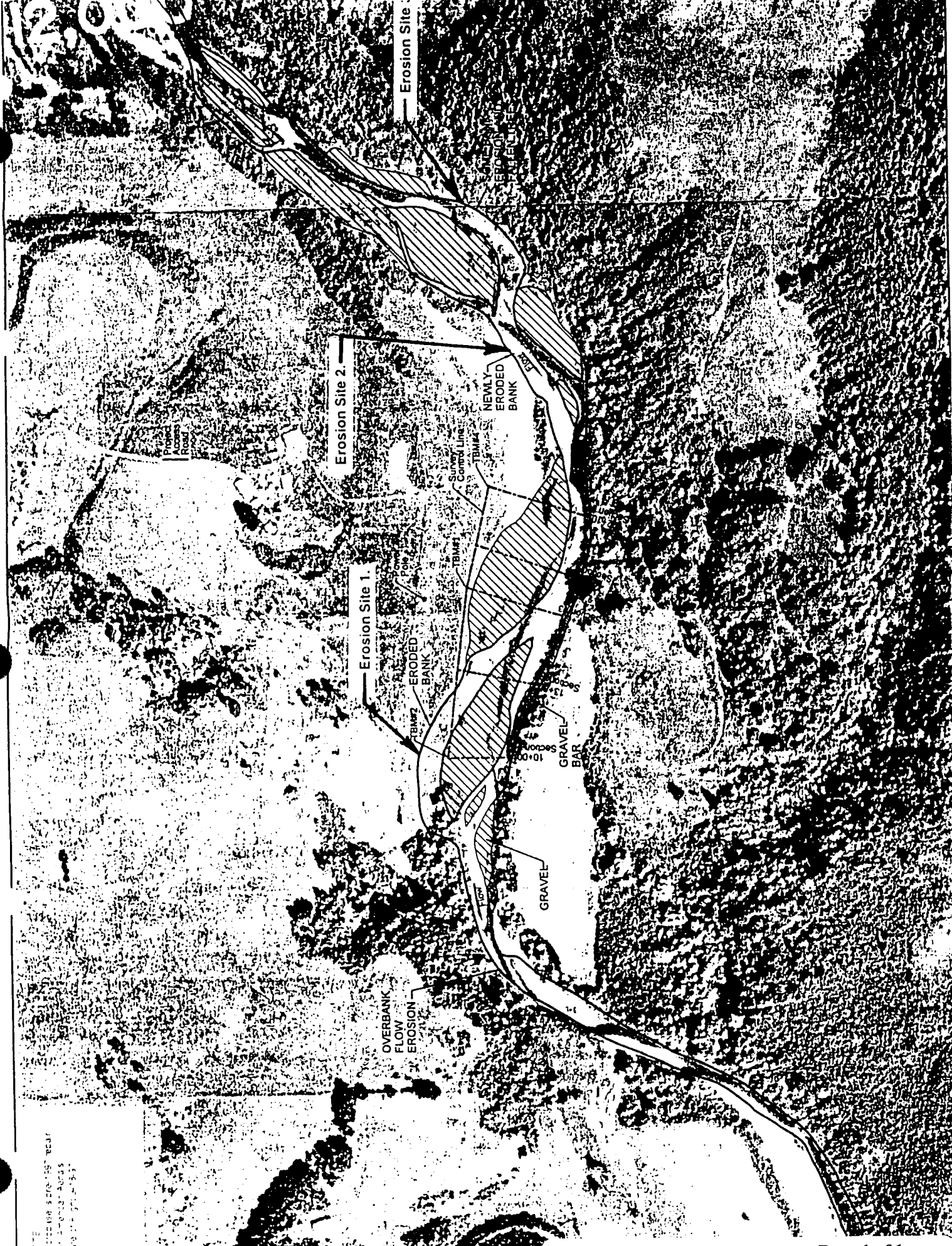
**Date: October 2, 1997**

**Page 4 of 4**

10. A silt catchment basin constructed of gravel which is free from mud or silt with a water filtration barrier composed of filter fabric shall be constructed at the western downstream end of the project site before water flow enters into state waters. Upon completion of the project and after all flowing water in the area is clear of turbidity, the gravel along with the trapped sediment shall be removed from the stream.
11. All dike material deposited on the north eroding bank shall be sufficiently compacted to minimize downstream sedimentation and increase bank stabilization.
12. Construction of the "v" shaped channel shall begin at the most downstream location and work upstream until completed.
13. All heavy equipment shall be stored on the bank shoulder out of the stream channel each day. all internal fluids of heavy equipment an petroleum products in contact with the channel substrate shall be cleaned up and removed immediately.

JG/ltc

NOTE  
Project Area  
Erosion Site  
Erosion Site



**GARCIA RIVER**  
**VERNON KENDALL TRUST**  
**Streambank Revegetation & Stabilization Project**

On July 24, 1998 I attended a meeting at the site of concern with; Charles T. Vath, engineering geologist with California Regional Water Quality Control Board; George Heise, hydrologist with Ca Dept of Fish and Game, Ed Ramos, warden Ca Dept of Fish and Game; Teri Barber, our hydrologist; and the landowners. The group examined the site and together we came to agreement as to the method of bank stabilization within the damaged reach. The following is a brief description of the site and of our repair strategy.

The length of damaged streambank to be repaired is 715 feet long. The height of the bank from the gravel bar at the bottom, to the meadow at the top varies between 6 and 9 feet in elevation. This is an area where the river has scoured out a wide flood plain on its north side, with distances of over 300 feet from the cut bank to the active low flow channel. The low flow channel is 42 feet wide and varies from 6 inches to 2 feet deep. On the south side of the channel within this reach is a well vegetated flood plain showing no flood damage.

The amount of flood plain available to the river within this reach allows us to use a soft vegetative approach. Near bank velocities will be minimal within this reach due to the tremendous area of flood plain available to the river at peak flows.

The first phase of the repair plan will be to reshape the cut bank by skimming the surface of the gravel bar to slope the majority of the cut bank to a slope angle of 2.5:1. As the downstream end of the cut bank forms a sharp left turn we will, at George Heise' suggestion, concurred with by the other attending resource professionals, slope the last 100 feet of bank to a 10:1 slope in order to avoid having the high flow vector slam across channel into the opposite bank with the increased chance of destabilizing that currently well vegetated bank.

Within that last 100 feet of cut bank there is a group of four large Alder trees that were undermined by last winters floods and fell from the bank and are now lying nearby on the gravel terrace. These will be pushed against the cut bank and buried in the gravel bank shaping process. The outermost branch tips will be left sticking out to provide additional habitat and cover. I anticipate that there will be a backwater pool formed here of the kind that is ideal for juvenile Coho, and it is with these fish in mind that we are attempting to provide some early cover.

Once the bank is shaped, it will be stabilized with a series of Live Willow Siltation Baffles. The baffles will be 20 feet long, with half the structure up the reformed bank and half extending onto the bare gravel flood plain, providing some initial needed vegetation there. The Live Willow Siltation Baffle is a structure with a long history of use within the bioengineering technology, and it is one that we have found to be relatively undefeatable within the type of situation found at this site. Massive amounts of willow branches are buried in a trench cut 3 to 5 feet deep, perpendicular to the bank. Then the excavated material is pushed back into the trench leaving 3 to 5 feet of flexible branch tips extending above grade and tipped downstream at an angle of 45 to 60 degrees. To provide additional stability every other baffle will have the trench topped with small boulders.

This 715 foot section of bank will require 17 baffles. Each finished baffle will be approximately 12 feet wide and will be separated from the next one by 30 feet. This will require the installation of 17 baffles.

Baffles will be installed with the help of a four wheel drive backhoe loader to cut the trenches, replace the fill and help place the boulders. Final positioning of the boulders will be by hand. Reshaping of the cut bank will be done with a dozer.

The result of this approach to bank work will be immediate stability and good heavy vegetative cover by the first summer.

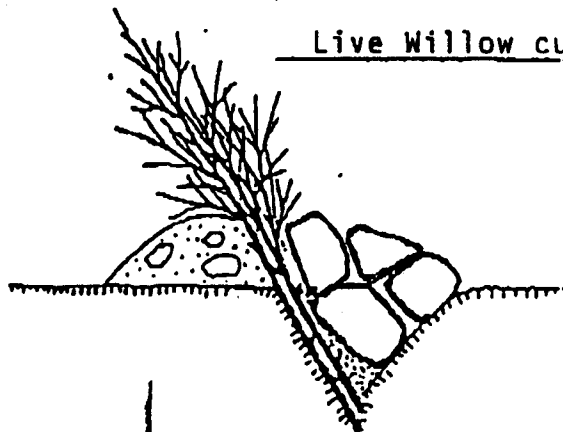
My estimate of cost for this work is just under \$15,000.00 with costs to the landowner potentially lower if he and/or his equipment participates in the work, under our direction.

Please find included on a separate page a diagram of a Live Willow Siltation Baffle with boulders. The design without boulders is identical, only gravel is used to fill to grade level. Varying a boulder stabilized trench with a gravel filled trench is a common practice and often the gravel filled are used in a greater ratio to the boulder filled. This design can now be found in the current CALIFORNIA SALMONID STREAM HABITAT RESTORATION MANUAL, produced by the Dept. of Fish and Game for the State of California Resources agency. I am the acknowledged contributor of these bioengineered designs to this years manual.

Please feel free to call, fax, or email me if you have any questions, comments or concerns.

Sincerely,  
Evan Engber  
Bioengineering Associates

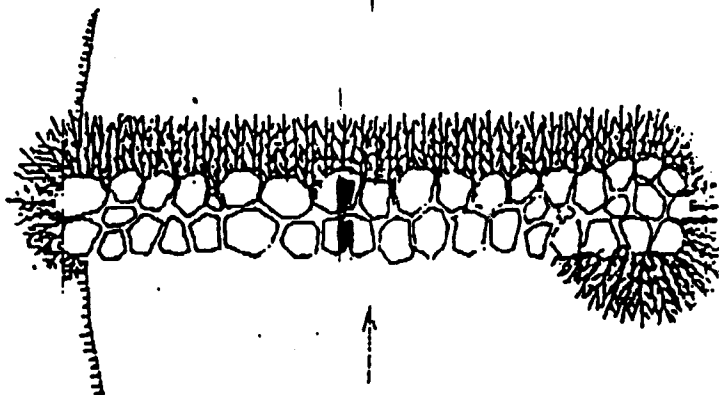
LIVE SILTATION BAFFLE



shoulder or  
boulders

Trench depth will vary with substrate

PLAN DIAGRAM





California Regional Water Quality Control Board  
North Coast Region

CLEANUP AND ABATEMENT ORDER NO. 97-56

FOR

Vernon Kendall and Russell Caughey  
dba The Kendall Ranch

Mendocino County

The California Regional Water Quality Control Board, North Coast Region (hereinafter the Regional Water Board), finds that:

1. Vernon Kendall owns the Kendall Ranch located at 43001 Mountain View Road in Manchester, CA. Russell Caughey is the manager of the Kendall Ranch and actively directed the project described in Finding 2 below. Vernon Kendall and Russell Caughey shall hereinafter be referred to as the discharger.
2. From February 18 through February 24, 1997, the discharger directed a project to modify the stream channel of the Garcia River. This project resulted in the discharge of waste silt and earthen materials to the Garcia River downstream of the project site. In addition, this project has resulted in the placing of waste silt and earthen materials in areas where they threaten to be discharged to the Garcia River downstream of the project site.
3. The Water Quality Control Plan for the North Coast Region (Basin Plan) contains the following prohibitions:
  1. The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited.
  2. The placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities which could be deleterious to fish, wildlife, or other beneficial uses is prohibited.

The discharger has discharged waste into waters of this State in violation of a prohibition issued by the Regional Water Board, and has caused or permitted waste to be discharged or deposited where it is, or probably will be discharged into the waters of the State and creates, or threatens to create, a condition of pollution or nuisance.

4. The beneficial uses of the Garcia River include:
  - a. Agricultural Supply
  - b. Industrial Service Supply
  - c. Water Contact Recreation
  - d. Non-contact Water Recreation
  - e. Commercial and Sport Fishing
  - f. Cold Freshwater Habitat
  - g. Habitat for Rare, Threatened or Endangered Species
  - h. Fish Migration
  - i. Fish Spawning

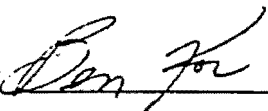


5. Relevant Water Quality Objectives contained in the Basin Plan include:
- a. Waters shall be maintained free of coloration that causes nuisance or adversely affects beneficial uses.
  - b. Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.
  - c. Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses.
  - d. The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
  - e. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof.
6. This enforcement action is being taken for the protection of the environment and, therefore, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with Section 15321, Chapter 3, Title 14, California Code of Regulations.

THEREFORE, IT IS HEREBY ORDERED that, pursuant to California Water Code Section 13267 and Section 13304, the discharger shall cleanup and abate the effects of the discharge of waste in accordance with the following:

1. On or before July 18, 1997, submit to the Regional Water Board, for concurrence by the Executive Officer, a stream habitat restoration and bank stabilization plan that provides a detailed description of the work proposed to be done on the Garcia River at the Kendall Ranch this year.
2. On or before September 30, 1997, complete the stream habitat restoration and bank stabilization proposed in the plan, as concurred with by the Executive Officer, described in Provision 1 above.
3. On or before, May 1, 1998, submit to the Regional Water Board for concurrence by the Executive Officer, a long term plan for stream habitat restoration and bank stabilization for the Garcia River at the Kendall Ranch.

Ordered by



Benjamin D. Kor  
Executive Officer

June 10, 1997

(kenc&a)

AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

THIS AGREEMENT, entered into between the State of California, Department of Fish and Game, hereinafter called the Department, and KENDALL RANCH / RUSSELL CAUGHNEY / VERNON KENDALL of MANCHESTER, State of CALIFORNIA, hereinafter called the operator, is as follows:

WHEREAS, pursuant to Division 2, Chapter 6 of California Fish and Game Code, the operator, on the 27<sup>TH</sup> day of JUNE, 97, notified the Department that he intends to substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed of, the following water: GARCIA RIVER, in the County of MENDOCINO, State of California, S 31 T 13N R 16W.

WHEREAS, the Department (represented by EDWARD RAMOS) has made an inspection of subject area on the 27<sup>TH</sup> day of APRIL, 19 97, and) has determined that his operations may substantially adversely affect existing fish and wildlife resources including: BIRDS, FISH, MAMMALS AND INVERTEBRATES

THEREFORE, the Department hereby proposes measures to protect fish and wildlife during the operator's work. The operator hereby agrees to accept the following recommendations as part of his work: Numbers 1) 2) 3) 4) 7) 8) 11) 17) 18) 19) 20) 21) 22) in the list of recommendations on the back of this page and the following special recommendations:

- All work in or near the stream or lake shall be confined to the period PHASE I, WINTER RAIN SEASON PREP, OCT 1 TO 15, 1997.  
PHASE II, REEVALUATION OF SITE AFTER 1997-98 RAIN SEASON, JUNE 1 TO OCT 1, 1998

THE ABOVE NUMBERED RECOMMENDATIONS, INCLUDING THE ATTACHED CONDITIONS OF AGREEMENT (ONE PAGE) AND THE SPECIAL WRITTEN RECOMMENDATIONS (ONE PAGE) SHALL BE CONSIDERED A PART OF THIS AGREEMENT. THE RESPONSIBLE PARTY AT THE SITE SHALL HAVE READ THIS AGREEMENT IN ITS ENTIRETY AND SHALL BE FAMILIAR WITH ITS CONTENT PRIOR TO ANY WORK OR OPERATIONS. A COPY OF THIS AGREEMENT SHALL BE KEPT AT THE SITE AT ALL TIMES AND SHALL BE PRODUCED UPON REQUEST BY ALL AUTHORIZED FISH AND GAME PERSONNEL. NO PART OF THIS AGREEMENT SHALL BE CHANGED OR AMENDED WITHOUT FIRST OBTAINING THE APPROVAL OF THE DEPT OF FISH AND GAME.

\_\_\_\_\_ Exhibit #7 Page 1 of 4  
\_\_\_\_\_ 1-98-051 Kendall  
\_\_\_\_\_

The operator, as designated by the signature on this agreement, shall be responsible for the execution of all elements of this agreement. A copy of this agreement must be provided to contractors and subcontractors and must be in their possession at the work site.

If the operator's work changes from that stated in the notification specified above, this agreement is no longer valid and a new notification shall be submitted to the Department of Fish and Game. Failure to comply with the provisions of this agreement and with other pertinent Code Sections, including but not limited to Fish and Game Code Sections 5650, 5652 and 5948, may result in prosecution.

Nothing in this agreement authorizes the operator to trespass on any land or property, nor does it relieve the operator of responsibility compliance with applicable federal, state, or local laws or ordinances.

THIS AGREEMENT IS NOT INTENDED AS AN APPROVAL OF A PROJECT OR OF SPECIFIC PROJECT FEATURES BY THE DEPARTMENT OF FISH AND GAME. INDEPENDENT REVIEW AND RECOMMENDATIONS WILL PROVIDED BY THE DEPARTMENT AS APPROPRIATE ON THOSE PROJECTS WHERE LOCAL, STATE, OR FEDERAL PERMITS OR OTHER ENVIRONMENTAL REPORTS ARE REQUIRED.

This agreement becomes effective on UPON SIGNATURES OF BOTH PARTIES AND EXPIRES NOV. 1, 1998.

Operator \_\_\_\_\_  
\_\_\_\_\_ Edward Ramos Department Representative  
Title FISH AND GAME WARDEN

Subject: Streambed Alteration Agreement # 0733-97, Garcia River, Manchester, Mendocino County, issued to Kendall Ranch/Russell Caughey/Vernon Kendall.

Recommended conditions of agreement:

- 1) The issuance of this agreement is pursuant to Cleanup and Abatement Order No. 97-56 issued by the California Regional Water Quality Control Board, North Coast Region (RWQCB). This agreement does not exempt, nullify, hold harmless or provide retroactive for any work or operations in the Garcia River at the Kendall Ranch prior to its issuance.
- 2) All water flow, seepage, discharge or runoff at the site and from the operations or the placing of material where it can enter state waters shall comply with RWQCB Basin Plan prohibitions items - listed in 3(1) and 3(2), including Relevant Water Quality Objectives 5(a) through (e) guidelines of :
  - A) RWQCB Cleanup/Abatement Order No. 97-56, and
  - B) Section 5650(f) of the Fish and Game Code, unlawful to pass/deposit deleterious substances into state waters.At any time noncompliance conditions of 2A or 2B exist, all operations shall cease immediately and shall not continue until the Dept. of Fish and Game have given approval to continue.
- 3) The removal of unconsolidated gravel/earthen material from the dike shall not exceed existing levels or amounts prior to dike construction. The removal of dike material, silt catchment basin or water filtration design, and construction of a "v" shaped channel or any streambed operations connected with this agreement shall comply with condition #2 at all times.
- 4) Upon rainfall of one inch or more within a 24 hour period or when the river rises by more than six inches, all operations shall cease immediately, and shall not continue until the threat of rain has passed, and the site has been evaluated by the Dept. of Fish and Game and authorization to continue has been received.
- 5) No operations shall be conducted beyond October 15, 1997, unless approved by the Dept. of Fish and Game. This includes cleanup of operations at the site.
- 6) The south flow channel shall remain open for fish passage and free of silt laden waters at all times.
- 7) The following shall be required:
  - A) Site inspection by DFG, RWQCB, and the CA Coastal Commission staff to evaluate interim site conditions by March 15, 1998.
  - B) A plan for the long term stream restoration, bank stabilization, wildlife habitat restoration, and monitoring for phase II of this agreement by April 15, 1998.
  - C) Approval of a revised fishery monitoring plan by DFG Biologist Mike Rugg and initiation of sampling before November 1, 1997.

Subject: Streambed Alteration Agreement # 0733-97.

Special written recommendations:

- 1) Work within the flowing channel (either north or south) shall be limited to that necessary to construct diversion structures. If water flow through the north channel cannot be eliminated, a culverted access road may be constructed for use of a rubber tire skip loader and dump trucks to haul the remaining unconsolidated dike material to the receiving bank. Blading and pushing of dike material or channel spoil into or across the flowing water of old channel (north channel) shall not be allowed as this will cause extensive mobilization of fines.
- 2) Diversion of existing water flow into the north channel at the upstream dike end may be accomplished by constructing a temporary small berm using site gravel material, and may be assisted with use of filter fabric or plastic sheeting as needed.
- 3) A silt catchment basin and water filtration barrier shall be constructed at the western downstream end of the project site that will comply with condition #2 before water flow enters into state waters. Recommend the use of filter fabric and clean gravel without silt. The design and its implementation shall also comply with numbered recommendation 17(a) and (b).
- 4) All removed gravel/earthen material from the dike deposited on the north eroding bank shall be sufficiently compacted as to minimize downstream sedimentation and increase bank stabilization.
- 5) Recommend construction of the "v" shaped channel shall begin at the most downstream location and work upstream until completed. This will allow an improved monitoring of the siltation during operations while maintaining compliance of condition #2.
- 6) All heavy equipment shall be stored on the bank shoulder out of the stream channel each day. All internal fluids of heavy equipment and petroleum products in contact with the channel substrate shall be cleaned up and removed immediately.

Operator \_\_\_\_\_ Date \_\_\_\_\_

Fish and Game Rep. Edward Namur Date 9-29-97

AGREEMENT REGARDING PROPOSED STREAMBED ALTERATION NOTIFICATION

THIS AGREEMENT, entered into between the State of California Department of Fish and Game, hereinafter called the Department, and Vernon Kendall/ Kendall Ranch/Garcia River Project of P.O. Box 66, Manchester, CA 95459, State of California, hereinafter called the operator, is as follows:

WHEREAS, pursuant to Section 1603 of the California Fish and Game Code, the operator, on the 27 th day of June 27,, 1997, notified the Department that they intend to substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed of, the following water: Garcia River, pursuant to Cleanup Abatement Order No. 97-56 (RWQCB) North Coast Region in the County of Mendocino, State of California.

WHEREAS, the Department has submitted proposals necessary to protect fish and wildlife within 30 days of receipt of the notification.

WHEREAS, the Code provides that the affected party (operator) shall notify the Department in writing as to the acceptability within 14 days of receipt of the Department's proposals or within a time mutually agreed upon.

WHEREAS, it is to the mutual benefit to the parties hereto to extend the time period for submittal of the operator's response to the Department's proposals as provided in the code.

THEREFORE, it is agreed that the operator shall notify the Department in writing as to the acceptability of the Department's proposals, on or before

8-27-97 / AMENDED TO 9-7-97. ER 8/22/97  
2ND AMENDMENT TO 10-15-97 ER

THEREFORE, it is also agreed that the operator shall not commence work prior to proper settlement of the matter by mutual agreement or by a panel of arbitrators pursuant to Section 1603 of the Fish and Game Code.

x Operator Vernon Kendall  
Title \_\_\_\_\_  
Organization \_\_\_\_\_  
Date \_\_\_\_\_

Edward Namo  
Department Representative  
Title Fish and Game Warden  
Department of Fish and Game  
State of California  
Date 7-14-97

September 4, 1997

Mr. John A. Behnke, Esq.  
Rawles, Hinkle, Carter, Behnke, and Oglesby  
P.O. Box 720  
Ukiah, CA 95482

RE: Kendall Case-Garcia River/Preliminary Draft Salmonid Monitoring Plan

### ***DRAFT SALMONID MONITORING PLAN***

***Overall Objective:*** *To assess timing and use of the project area by coho salmon and steelhead trout, as compared with other comparable habitats within the Garcia River*

#### **I. TASKS**

***Task 1: Immigrating and Spawning Use within the Project Area***

***Scope of Work:*** Beginning in October, adult coho salmon and steelhead trout migrating up the Garcia River *will be monitored, from the standpoint of presence, spawning redds, and carcasses.* The survey will begin at the mouth of the Garcia River and proceed up through the Project Area to a pre-defined spot. Not having walked the river, I can't tell you what that would be today. When I return, I will talk with Mike Maas and others familiar with the river and determine what area would be a good upstream "end point". Our Zodiac or kayaks may be the best method of observation, rather than on foot.

***Duration of Survey:*** *October* (one 12-hour day per week)  
*November-December* (one 12-hour day every two weeks)  
*January* (one 12-hour day per week)  
*February* (one 12-hour day every two weeks)  
*March-April* (one 12-hour day per month).

Note: if it appears that most of the coho salmon aren't showing up in October, then we will quit the October survey for that month. Similarly, if most of steelhead aren't showing up in January, but arrive earlier or later, than whenever they appear to be most abundant will be the month we focus on. Unfortunately, this is one of those "evolving" survey type things!

J. Behnke/Draft Salmonid Monitoring Plan

September 4, 1997

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**Task 2: *Salmonid Rearing Habitat within the Project Area***

**Scope of Work:** Beginning next summer during the low flow season, I recommend the following three types of rearing surveys:

- (1) Habitat Survey;
- (2) Water Temperature Monitoring; and,
- (2) Population (electrofishing) Surveys

***Habitat Survey:***

Using a modification of Bisson et al. (1982) developed by Dr. Rich for California coastal rivers, the project area will be "habitat typed". In addition, downstream and upstream areas will be "habitat typed", to compare with the existing salmonid habitat within the Project Area. (See Attachment A for Sample Data Sheet).

***Water Temperature Monitoring***

Water temperature controls all aspects of a salmonid's life. Therefore, water temperatures need to be monitored within the Project Area and compared with those in other comparable habitats, either upstream or downstream of the Project Area. Beginning in about March of next year and extending through October, continuous temperature recording devices ("Hobo Temps") will be placed in strategic places within the project area. In addition, "Hobo Temps" will be installed in comparable habitats outside of the Project Area, for comparison.

J. Behnke/Draft Salmonid Monitoring Plan  
September 4, 1997  
Page 3

**Task 3: Fish Population Survey**

**Scope of Work:** Based on the results of the Habitat Typing, representative habitats will be sampled within and outside of the Project Area, using a backpack electrofisher. Prior to sampling, each electrofishing station will be blocked off, using block nets, and then the area will be electrofished. Proceeding upstream to the end of each station, the "shocker" will be accompanied by two "netters", who will scoop up the fish and place them carefully in aerated buckets. Three or more "passes" will be undertaken, according to the "maximum likelihood" method (VanDeventer and Platts, 1982). Once the fish have been collected, they will be anaesthetized (with buffered anaesthetic, to reduce the stress of the acidic anaesthetic, according to Rich, 1979), identified, and weighed and measured. (See Attachment B for Sample Data Sheet)

**Task 4: Data Entry**

All data will be entered into a database management program for easy translation to other programs which will need to be used (e.g., SPSS for statistical analysis, Lotus, Sigmaplot, Microfish for fish population analysis)



J. Behnke/Draft Salmonid Monitoring Plan  
September 4, 1997  
Page 4

**Task 5: Data Analysis**

Data analyses will include:

- (1) Salmonid timing, redd counts, carcass counts;
- (2) Habitat characterization, comparison of project area with other areas of the river, including water temperature analysis; and,
- (3) Fish population analysis, comparison of project area with other comparable areas (i.e., habitats) within the river.

**Task 6: Report of Results**

A report will be prepared which will include the results of Tasks 1-5. Although the format of the report has not been decided upon yet, it should include the following:

- Background of Project
- Objectives
- Methodologies used, including maps, statistical analysis
- Results of field surveys, as well as any other previous relevant information available
- Mitigation measures
- Conclusions and Recommendations
- Literature Cited
- Appendices

**A.A. RICH AND ASSOCIATES**Alan A. Rich, Ph.D.  
Principal

Fisheries and Ecological Consultants

160 Woodside Drive  
San Anselmo, CA 94960  
Tel: (415) 485-2087  
Fax: (415) 485-0221  
Email: arrich@arich.com

August 14, 1998

Mr. John A. Behrke, Esq.  
Rawles, Hinkle, Carter, Behrke, and Oglesby  
P.O. Box 720  
Ukiah, CA 95482RE: Kendall Case-Garcia River/Summary of Ongoing and Anticipated Tasks for Salmonid  
Monitoring

Dear John:

This communication is in response to your request earlier today, regarding the status of our work for the above-referenced project. Of the seven Tasks outlined in my February 19, 1998 letter to you, following is the status of those Tasks.

**(1) Task 1: Design and Placement of Thermographs**

Thermographs were installed on April 28 and June 30, 1998 (for those areas which were inaccessible on April 28). I will be relocating one or more of the thermographs on Monday, August 17 (per my August 12 letter to you), as the habitat has changed substantially since June.

**(2) Tasks 2 and 3: Fish Habitat and Population Surveys**

We plan to conduct the habitat and population surveys within the next month, per my August 12, 1998 letter to you. I will be providing a revised Cost Estimate to you and the Caughneys for this work by Monday, August 17.

**(3) Tasks 4-7: Immigrating and Spawning Use, Data Entry, Data Analysis and Report**

These Tasks will be conducted, according to the schedule outlined in my February 19, 1998 letter to you.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street  
San Francisco, Ca. 94105

September 25, 1997

Colonel Richard G. Thompson, District Engineer  
U.S. Army Corps of Engineers  
San Francisco District  
333 Market Street  
San Francisco, CA 94105-2197

Subject: In the Matter of Vernon Kendall and Russell Caughey, Kendall Ranch,  
Garcia River, Mendocino County, California.  
EPA Docket No. 404-09a-97-015.

Dear Colonel Thompson:

At the request of your regulatory staff, EPA initiated an enforcement action last spring against Vernon Kendall and Russell Caughey ("Respondents") for Section 404 violations on the Garcia River. On April 18, 1997, we requested information from the Respondents regarding the violations, and on September 3, 1997, we issued a Findings of Violation and Compliance Order. We provided copies of these documents to your staff.

Per our Compliance Order, the Respondents have developed a short-term plan for restoring stream habitat in the project area. The details of this plan represent agreement between the Respondents and their engineering consultants and representatives of the North Coast Regional Water Quality Control Board, California Department of Fish and Game, State Coastal Commission, National Marine Fisheries Service, and EPA. The plan requires the Respondents to:

1. Remove the remainder of the dike that was constructed in the stream channel, and excavate the site to the existing grade of the adjacent substrate.
2. Spread out the sand and gravel material from which the dike was constructed between the dike site and the adjacent north stream bank, and grade this material so that it slopes toward the live channel.
3. Place a small gravel bar at the downstream end of the work area to trap any sediments mobilized by the excavation activities.
4. Plant willows at the base of the north stream bank adjacent to the project site.

5. Construct a fence to prevent sheep/cattle from entering the site.
6. Provide EPA "as-built" drawings within thirty (30) days of restoring the site.

In addition, the following monitoring activities will occur:

1. Respondents shall provide aerial photographs of the existing River plan form from the Highway 1 bridge to approximately two miles upstream of Kendall Ranch. These photographs will facilitate the development of a long-term restoration plan for the site.
2. Respondents shall monitor local rainfall amounts, estimate flow levels in the River throughout the winter, and document any significant changes in the River's plan form.
3. Respondents, in coordination with the resource agencies, shall prepare a post-project plan to monitor fish presence and habitat quality at the project site. This plan may include fish rearing surveys, spawning surveys, and substrate sampling.

Our Compliance Order requires the Respondents to implement the above items by October 15, 1997. In addition, it requires them to prepare a long-term site restoration plan and to submit it to EPA for approval on or before May 1, 1998.

To facilitate the implementation of the above activities, we request that the Corps issue an order per 33 CFR Part 326.3(d) requiring the Respondents to undertake appropriate initial corrective measures. Recognizing the need for the Respondents to begin work in the very near future, we are available to work with your staff in any way necessary to expedite the authorization of these activities.

If you have questions or need additional information, please contact Michael Monroe of my staff at (415) 744-1963.

Sincerely,



for Nancy Woo, Chief  
Wetlands Regulatory Office

cc: California Coastal Commission, San Francisco  
California Department of Fish and Game, Yountville  
National Marine Fisheries Service, Santa Rosa  
North Coast Regional Water Quality Control Board, Santa Rosa  
U.S. Fish and Wildlife Service, Sacramento