

**COUNTY OF HUMBOLDT EXTRACTION REVIEW TEAM (CHERT)
2001 POST-EXTRACTION REPORT**

DISCUSSION DRAFT

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For the

Humboldt County Board of Supervisors

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This version represents the Final 2001 CHERT Post Extraction Report.**

EXECUTIVE SUMMARY

This report represents the Humboldt County CHERT gravel extraction compilation and analysis for the 2001 mining season. CHERT site-specific recommendations regarding extraction designs submitted by the operators' consultants as well as operator performance in achieving approved designs and specifications are briefly summarized. In 2001, CHERT reviewed 55 extraction areas distributed among 27 mining sites in Humboldt and Mendocino Counties (many sites had more than one extraction area). The total volume of gravel approved for extraction in 2001 was about 1,005,100 cubic yards (cy). The total volume actually extracted was about 562,500 cy, or about 56% of that approved for extraction.

As background, the concept of sustained yield extraction relative to mean annual recruitment (or 'MAR', an estimate of the long-term average annual supply of gravel to a specific reach of a river) is explained because of its importance to avoiding over-extraction and resultant cumulative effects on aquatic and riparian habitat and infrastructure (bridges, levees, etc.). Also discussed are site-specific measures recommended by CHERT to reduce local effects of mining on riparian and aquatic habitat. These are included to assist the reader in understanding the complexities of managing gravel mining to minimize both localized and cumulative effects arising from instream mining and how CHERT uses these criteria on an annual and multi-year basis to meet management objectives.

I. INTRODUCTION

Following is the 2001 annual post-extraction report of the County of Humboldt Extraction Review Team (CHERT). This report summarizes CHERT recommendations and agency approvals for gravel extraction operations for the 2001 season, as well as descriptions of any substantial deviations from approved mining plans.

The Humboldt County instream gravel mining program is conducted pursuant to the California Surface Mining and Reclamation Act (SMARA). Instream mining is also governed by the US Army Corps of Engineers (COE) Letter of Permission (LOP) adopted on August 19, 1996 and the California Department of Fish and Game through Streambed Alteration Agreements. CHERT review of instream gravel mining is authorized by SMARA (Public Resources Code, Division 2, Chapter 9, Section 2774 (b), the Interim Monitoring Program for the Lower Eel and Van Duzen Rivers adopted by the Humboldt County Board of Supervisors on July 2, 1996, and the 1992 Memorandum of Agreement (MOA) and Programmatic Environmental Impact Report on Gravel Removal from the Lower Mad River certified by the Humboldt County Board of Supervisors on May 31, 1994. As of this writing, an updated LOP (2003) is being prepared by the Corps of Engineers for implementation in the 2003 extraction season.

Various extraction reaches have been identified (Table 1). Certain data reported herein is organized by these extraction reaches.

II. SUSTAINED YIELD MANAGEMENT

Management strategies for gravel extraction are guided by U.S. Army Corp's of Engineers requirements, California Department of Fish and Game requirements, and Endangered Species Act considerations for listed species (Coho Salmon and Snowy Plover). Management strategies

Table 1. – Description of River Reaches used to sort Extraction Data

Approximate Length (miles)	River Reaches
7	<p style="text-align: center;">Mad River</p> <p>The Mad River Reach extends approximately seven miles downstream from the Blue Lake Fish Hatchery to just below the Highway 299 Bridge near Arcata. Some effects of extraction will occur upstream and downstream of this reach.</p>
6	<p style="text-align: center;">Lower Eel River</p> <p>The Lower Eel River Reach extends approximately six miles downstream from the mouth of the Van Duzen River to just upstream of Fernbridge. Some effects of extraction will occur upstream and downstream of this reach.</p>
5	<p style="text-align: center;">Lower Van Duzen River</p> <p>The Lower Van Duzen River Reach extends upstream approximately five miles from the mouth of the Van Duzen River. Some effects of extraction will occur upstream and downstream of this reach.</p>
26	<p style="text-align: center;">Middle Reach of Eel River</p> <p>The Middle Reach of the Eel River extends upstream from Scotia (River mile 20) for approximately 26 miles to River Mile 46. Some effects of extraction will occur upstream and downstream of this reach.</p>
17	<p style="text-align: center;">South Fork Eel River Reach</p> <p>The South Fork Reach extends from Garberville (River mile 33) upstream to near the Mendocino County line (River mile 50), a distance of approximately 17 miles. Some effects of extraction will occur upstream and downstream of this reach.</p>
15	<p style="text-align: center;">Trinity River Reach</p> <p>The Trinity River Reach extends downstream about 15 miles from near Willow Creek into the Hoopa Valley. Some effects of extraction will occur upstream and downstream of this reach.</p>
	<p style="text-align: center;">“Isolated Sites”</p> <p>Five extraction sites are more or less isolated from the rest of project. These are the <i>Satterlee Bar</i> on the main stem of the Eel river at Fort Seward, the <i>PL Bar</i> on the Van Duzen River, the <i>Branstetter Bar</i> on Bear River, the <i>Charles Bar</i> on Larabee Creek, and the <i>Cook Bar</i> on the North Fork of the Mattole River. Some effects of extraction will occur upstream and downstream from these sites.</p>

for gravel extraction on the lower Mad River and the lower Eel and Van Duzen rivers are also guided by environmental impact reports (EIRs) specific to each area. Both EIRs require, among other things, that gravel-mining volumes be constrained so that channel bed degradation (net lowering) does not result from gravel mining. Channel bed degradation can negatively impact fish passage, riparian vegetation and channel infrastructure and is but one of many potential negative effects linked to gravel mining in environmental documents (EIRs, EISs, etc.) and published scientific literature from case studies from many areas around the globe. Other potential negative

effects include changes in bar morphology resulting in a loss of bar function, a reduction of instream aquatic and shoreline habitat quality and diversity, channel widening through increased bank erosion, channel braiding (establishment of multiple flow channels across a bar) and loss of confinement within low and moderate flow channels. These effects increase in geographical extent and severity as the volume of gravel mined in a river reach approaches (or exceeds) the volume of gravel supplied to the reach by fluvial (streamflow) transport during winter storms. Additional discussion on these potential adverse impacts of gravel extraction is included in the CHERT 2000 Post Extraction Report.

The concept of “sustained yield”, simply stated, requires that mining methods and volumes be constrained to provide a more or less uniform annual rate of gravel extraction while allowing river processes and conditions (and by extension, habitat) to continue relatively unaffected by gravel extraction. Infrastructure and habitat protection require a sustainable aggregate extraction strategy; one that harvests less than recruitment when averaged over several years or longer. A sustainable extraction strategy limits average annual extraction to a volume less than mean annual recruitment in such a manner as to maintain or recover a complex channel morphology and aquatic habitat within the immediate area of mining, as well as to prevent or reverse mining-induced cumulative effects upstream and downstream. Additional discussion on the subject of sustained yield can be found in the CHERT 2000 Post Extraction Report.

While the volume of gravel transported (“recruited”) to a mining reach can vary tremendously from year-to-year, the long-term annual average volume provides an essential tool for managing the potential cumulative effects from gravel extraction. We call this value the “mean annual recruitment”, or MAR. It is the cornerstone of sustained yield management and can be estimated by several techniques that vary in accuracy.

Using MAR as a basis for determining sustainable extraction volumes is a robust method for ensuring or evaluating sustainability. Although different terms are used to describe this recruitment-based approach, it has been used to develop sustainable extraction strategies in a number of locations in the western US (Collins and Dunne, 1990; Collins, 1992; Lehre, 1993). It applies the basic concept of the river continuum in avoiding cumulative effects by ensuring that extraction volumes remain low enough to leave sufficient gravel in the river to maintain channel alluvial structure (gravel bars, channel bends, floodplains, riparian tree stands). Risk (to bridges, salmonid habitat, and other issues dependent on alluvial structure) will generally increase with an increasing percentage of MAR extracted. Additional discussion about MAR can be found in the CHERT 2000 Post Extraction Report.

In Humboldt County, at present, MAR has only been estimated with reasonable confidence for the Mad and Van Duzen Rivers. Recent activities to reopen the railroad between the Eureka area and Mendocino County include mention of supporting railroad operations with additional gravel mining from the Eel River. There will likely be increasing demand for aggregate if the rail line connecting Humboldt County to southern markets becomes functional. We believe an objective analysis of MAR on the Eel River, especially one that includes contemporary bedload transport data and assesses the potential impacts on aquatic habitat and existing mining operations, is critically needed prior to any development activity that depends on increasing mining volumes in the Eel River. This analysis should be performed at the earliest possible time.

III. Mining Design Criteria for Minimizing Localized Impacts

With few exceptions, the 2001 CHERT recommended gravel extractions were designed as skims on unvegetated or sparsely vegetated bar surfaces. Point bar and lateral bar skim configurations were of two general forms: bench skims located near to or far from the edge of the low flow channel (most common), and planar skims of the crown of a bar (crown skim).

Horizontal limits of point bar skims were laid out to conform to the overall shape of the bar, typically in a crescent shape. On large-amplitude meander bends, the upstream end of the bar was left undisturbed to discourage meander cutoff and bar destabilization. Where significant clumps of vegetation (mostly willows) occurred near the edge of a proposed skim, the boundaries of the skim were realigned to avoid them. Where such vegetation was located in the interior of a skim, these clumps were left as undisturbed "islands" within the skim boundaries. In most extraction areas, designs included a minimum vertical offset of about 1.5 to 2 feet above the low water surface to confine the low flow channel. This offset was sometimes referenced to a light colored "silt band" found along the edge of the channel. This silt band provided a relatively consistent criterion for recommending appropriate vertical offset for individual bars and between the numerous bars extracted along the river. Drainage of receding river flows was provided by designing extraction surfaces that slope either directly toward (perpendicular to) the low flow channel or in a downstream direction and avoiding closed depressions that could strand salmon.

Some skims were located in or adjacent to dry overflow channels. Other skims resulted in shallow pits on frequently inundated flood plains. Deep frequent flood plain pits were used at some sites. Deep wet trenches in the active channel were also utilized. Both deep flood plain pits and deep wet trenches extend well below the water table.

There exists a large body of scientific literature on gravel mining that describes the spectrum of observed effects on channel geomorphology, aquatic and riparian plant and animal communities, and infrastructure. While some of the literature provides general recommendations for impact reversal or avoidance, it stops short of providing specific mining plan design criteria for minimizing localized impacts. In Humboldt County's mining program, several site-specific criteria may be employed to minimize geomorphic and/or habitat impacts at mining sites. They are described below.

- 1) Skim boundaries are typically laid out as curvilinear benches along the outside of point bars as this usually provides a good replenishment configuration without preventing riparian colonization or encouraging braiding;
- 2) Skim widths are constrained to avoid braiding (divided flow) by being no wider than about half the unvegetated bar width;
- 3) Skim floors are sloped to provide for drainage following inundation (either directly toward the low flow channel, in a downstream direction, or somewhere in between) to reduce salmonid stranding potential;
- 4) A vertical offset of the skim floor above the low water surface (typically about 2 feet or more) is provided to retain sufficient low flow channel confinement;
- 5) The upstream one-third of a bar is usually left undisturbed to preserve sufficient high flow confinement of flows entering the bend and discourage braiding.
- 6) In low recruitment years, bar skimming may be forgone in favor of wetland pits outside the active channel, but on surfaces no higher than the 5-year floodplain;
- 7) Gentle (10:1) side slopes are provided around the outer edges of wetland pits, with deeper areas in the interior to increase volumes;

- 8) Wetland pit boundaries are laid out to limit disturbance to existing riparian vegetation by conforming to existing openings in perennial riparian vegetation;
- 9) Wetland pits are avoided near the upstream ends of bars to prevent elevating the risk of meander cutoff;
- 10) Total pit area on a bar should not exceed about 10% of the bar's surface area to avoid elevating the risk of meander cutoff.

These criteria are intended to be flexible (i.e., adaptive) and are recommended by CHERT as needed during mining plan review in an effort to avoid localized geomorphic and/or habitat impacts (avoidance is always preferable to attempting to reverse observed impacts). They appear to be reasonably successful in avoiding impacts associated with historical mining methods. Consultants for the operators incorporate these criteria in mining plan preparation. CHERT reviews proposed mining plans for conformance to these criteria and applicable SMARA reclamation standards (California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1, Article 9).

Table 2. Summary of 2001 CHERT recommended extraction methods. Some extractions did not occur. Numbers in parentheses indicate the number of extractions at each site.

Site	CHERT Recommended Extraction Methods
Mad River	
Johnson-Spini	Bench Skim (1); Crown Skim (1)
Essex	Bench Skim (1)
Johnson	Bench Skim (1)
Christie	Shallow Floodplain Pit (2)
Blue Lake	Dry trench in Overflow Channel Terminating in a Frequent Flood Plain Pit (1); Deep Pit near Edge of Active Channel (1)
Emmerson	Shallow Dry Trench in Old Channel (2); Deep Frequent Flood Plain Pit (2)
Guynup	Bench Skim (1)
Lower Eel River	
Worswick	Bench Skim (1)
Drake	No Plan Submitted
Sandy Prairie B	Bench Skim (1); Skim in Dry Overflow Channel (3)
Sandy Prairie A	Bench Skim (4); Shallow Dry Trench Terminating in a Bench Skim (1)
Hansen	Bench Skim adjacent to a Dry Overflow Channel
Hauck	Bench Skim adjacent to a Dry Overflow Channel
Van Duzen River	
Rock	Bench Skim (1); Shallow Floodplain Pit (1)
Noble	Bench Skim (3)
Bess	No Plan Submitted
Middle Reach of Eel River	
Scotia	No Plan Submitted
Truck Shop	No Plan Submitted
Dinner Creek	No Plan Submitted
Three Mile	Bench Skim (1)
Larabee	Deep Trench with Shallow End Slopes
South Fork	No Plan Submitted
Bowlby	Bench Skim (1)
Vroman	Bench Skim (1)
Maynard	No Plan Submitted

Table 2- continued.	
South Fork Eel River	
Wallan	Bench Skim – leaving some vegetation between skim area and river (1)
Randall	Bench Skim – leaving some vegetation between skim area and river (1); Bench Skim (2)
Cooks Valley HC	Bench Skim (4); Alcove (1); Trench (1)
Cooks Valley MC	Bench Skim – leaving some vegetation between skim area and river (1); Deep Wet Trench (1); Bench Skim (1)
Trinity River	
Rowland	Bench Skim (2)
Willow Creek Big Rock	Skim in Dry Overflow Channel (1); Bench Skim (2); Wet Trench (1)
McKnight	Crown Skim (1)
Isolated Sites	
Satterlee	No Plan Submitted
PL	No Plan Submitted
Charles	No Plan Submitted
Cook	No Plan Submitted
Branstetter	No Plan Submitted

A recent proposal by the local NOAA-Fisheries office may provide a more objective means to set appropriate minimum skim floor elevations when designing typical point bar skims. Using both hydraulic modeling and field checking, they determined that the water surface elevation at the 35% exceedence flow (that flow rate equaled or exceeded 35% of the time, commonly attained in early spring as winter flows recede) provides a minimum skim floor elevation that may adequately preserve low flow channel confinement and help to minimize several potential negative effects associated with skimming operations near the low flow river channel, specifically: 1) shallowing of water depth at riffles (potentially impacts spawning migration), 2) reductions in spawning area (less spawnable area), and 3) increases in fine sediment deposition in redds (potential decreases in egg and fry survival).

Based on spatially and seasonally consistent hydrologic and hydraulic criteria, this minimum skim floor elevation may avoid some of the uncertainty and risk arising from earlier criteria such as the Corps' minimum elevation criteria of one foot above the low water surface (the water surface elevation gradually declines over the course of the mining planning and implementation season, thus it is a 'moving target').

CHERT sometimes references the minimum skim floor elevation to the top of a silt band (mostly on the Mad River). Preliminary observations at several sites indicate that the 35% flow exceedence corresponds relatively closely to the top of the silt band (M. Tauzer, pers. comm. Jan. 2003). Because the silt band may vary in elevation from year to year and may not always be present or easily identified at all sites, the 35% flow exceedence may be a more reliable criterion. However, it requires field demarcation in the spring at the time this flow is occurring, and thus presents some logistical challenges. It has been included in the NOAA Fisheries biological opinion on Humboldt County mining operations and may be incorporated into the Corps' forthcoming LOP 2003 for use beginning with the 2003 extraction season. Whether it may be incorporated as a regulatory standard or as a guideline is not known at this time.

IV. MONITORING AND ADAPTIVE MANAGEMENT

Detailed descriptions of methods and standards for instream gravel extraction monitoring data collection and presentation for the project area can be found in: 1) the California Department of Fish and Game's (CDFG) Humboldt County monitoring guidelines (contained in a May 9, 1995, memo from Richard Elliot, Regional Manager, Region 1), 2) the 1996 Letter of Permission (LOP 96-1) issued by the Army Corps, and 3) the 1996 Interim Monitoring and Adaptive Management Program issued by the Humboldt County Department of Public Works. These documents either require or recommend physical and/or biological monitoring methods to be implemented by all gravel operators within their respective geographic scopes.

Adaptive management strategies can be divided into two general categories: 1) those that are aimed at avoiding or reducing cumulative effects (accumulating in space and/or time), and 2) those that are geared towards localized, site-specific effects. In reality, the distinction is somewhat arbitrary: pervasive localized effects of mining (for example, excessively low bar skimming on a concentration of mined bars within a mining reach) may also precipitate cumulative effects (e.g., reach-wide depletion of gravel, braiding, loss of low flow channel confinement, habitat loss). Adaptive management for localized effects is a goal of the Mad River and lower Eel and Van Duzen rivers EIRs, the IMP, and the LOP and is reasonably well-accommodated by annual CHERT review and comment on mining plans. However, a periodic (once every five years or so) quantitative analysis using cross sections, air photos, and other information to assess effects of mining occurring over larger geographic areas and/or longer time periods is needed to ensure cumulative effects are being adequately minimized. Such an analysis is not presently incorporated into the County's gravel mining program.

V. 2001 GRAVEL EXTRACTION OPERATIONS

Table 3 lists 2001 gravel extraction, grouped by river reach. As shown in Table 3, a total of 1,005,099 cubic yards (cy) was approved for Class A (annual extraction greater than 5,000 cy) operations in Humboldt County during the 2001 extraction season. Of this, 562,524 cy (or about 56% of the approved volume) was actually extracted, as documented in post-extraction submittals from the operators and summarized in the appendix. The appendix describes approved and actual extraction at each mining area and the general type of extraction.

Table 3. Gravel extraction totals for Humboldt County Rivers, 2001.

River Reach	Approved Volume (cy)	Extracted Volume (cy)	Percent Extracted
Mad River	199,215	167,719	84
Lower Eel River	389,968	173,452	44
Van Duzen River	161,677	85,620	53
Middle Reach of Eel River	116,425	63,753	55
South Fork Eel River a/	66,035	43,121	65
Trinity River b/	71,779	28,859	40
Total	1,005,099	562,524	56

a/ Includes some volume in Mendocino county (part of the CHERT program).

b/ Includes some volume for Hoopa Tribe (not part of the CHERT program).

CHERT recommendations and other communications from the operators, their consultants, and agencies were compiled in numerous electronic mailings generated throughout the mining season. While this expedited the process of information exchange and the approval of mining

plans, no single report containing all recommendations was compiled. Consequently, this post-extraction report is the only document summarizing CHERT recommendations for the 2001 extraction season.

The appendix contains site-specific descriptions and comparisons of the recommended and extracted volumes; site specific descriptions of operator success in meeting approved mining plans are also contained in the appendix. These were evaluated by comparing the approved mining plans with the actual post-extraction information such as the horizontal limits of skimmed areas (delineated on air photos and plotted on cross sections), and elevations of extraction surfaces (plotted on cross sections). As in previous years, approved mining plans and specifications were well met at the majority of extraction sites in Humboldt County.

The site-by-site descriptions in the appendix describe those situations where some aspect of the post-extraction condition deviated from approved plans, where compliance issues were identified or where impacts were greater than expected. Should agencies want CHERT to provide more detailed descriptions of deviations from approved plans for compliance or other purposes, these can be requested on a case-by-case basis.

VI LITERATURE CITED

Collins, B.D. and T. Dunne. 1990 Fluvial geomorphology and river-gravel mining: a guide for planners, California Department of Conservation, Division of Mines and Geology. Special Publication 98. 29p

Collins, B.D. 1992. River-channel sediment budget and gravel mining, 1962-1991, in the Stillaguamish River, Snohomish County, Washington, Report Prepared for Lone Star Northwest, Seattle, Washington. 41p.

Lehre, A.K. 1993. Estimation of Mad River gravel recruitment and analysis of channel degradation. Section 3 of Technical Appendix to Mad River PEIR on Gravel Removal from the Lower Mad River. Humboldt County Planning Department.

APPENDIX
INDIVIDUAL SITE DESCRIPTIONS SORTED BY RIVER REACH

MAD RIVER

2001 CHERT O'Neill Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Arcata Readimix	Lower Mad River	O'Neill Bar
Agent for the Operator: Arcata Readimix		
Plan Development		
Conditions at this site do not change much from year to year. Issues include the amount of vertical offset needed to protect fisheries resources and channel processes and the need to protect riffle confinement at both ends of the bar. CHERT recommended that the operator's extraction plan be altered by decreasing the length of extraction at each end to help retain confinement at the riffles that are present at both ends of this bar.		
Number of Extraction Areas at this Operator-Site: One		
Area ID: O'Neill Bar	Method of Extraction: Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
9,960	The operator claims that the volume harvested from this site is <i>proprietary and has requested CHERT to not release the extracted volume.</i>	
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? ? <i>No. 1) Surveying datum are not indicated on the cross sections or anywhere else in the project materials. By comparing the submitted cross sections with another survey of an adjacent area, CHERT concludes that Arcata Readimix has consistently used an incorrect vertical datum. This may well mean that all of the required topographic monitoring data that Arcata Readimix has turned in over the years to the County, the CDFG and the Corps. are incorrect. 2) Two aerial photographs were provided, one hard copy with the plan and one computer disc copy. Both were dated May 7, 2001. The disc copy photograph created some confusion and it was finally determined to be a fall-season photograph from some previous year. 3) The pre extraction cross section horizontal and vertical scales are approximate and inconsistent. However, the post extraction cross sections are somewhat better. 4) The operator has not provided CHERT with the required cross section computer files.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not Applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>Yes. This operator's payments to CHERT are significantly past due. The operator claimed that the volume extracted from this site is proprietary and has requested CHERT to not release said volume; CHERT has honored this request.</i>		

2001 CHERT Johnson-Spini Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Arcata Readimix	Lower Mad River	Johnson-Spini
Agent for the Operator: Arcata Readimix		
Plan Development		
<p>Several proposals were considered during the development of this plan. The plan for the right bank bar was developed without too much controversy. The left bank bar plan took considerable more effort. Finally, on July 17, 2001 representatives from Arcata Readimix, CHERT and the California Department of Fish & Game met on the bar in an attempt to work out a compromise. A plan was verbally agreed to by representatives from all three groups. CHERT prepared a memo describing the plan concept. Arcata Readimix failed to correctly communicate the details of the plan to Arcata Readimix consultants and employees. Consequently the actual left bank extraction was significantly different from the agreed upon plan.</p>		
Number of Extraction Areas at this Operator-Site: Two		
Area ID: Right Bank Bar	Method of Extraction: Crown Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
37,950	<i>The operator claims that the volume harvested from this site is proprietary and has requested CHERT to not release the extracted volume.</i>	
Compliance and Effectiveness Evaluation		
<p>Were the cross sections, aerial photographs and volume calculations properly prepared and presented? No. 1) <i>Surveying datum are not indicated on the cross sections or anywhere else in the project materials. By comparing the submitted cross sections with another survey of an adjacent area, CHERT concludes that Arcata Readimix has consistently used an incorrect vertical datum. This may well mean that all of the required topographic monitoring data that Arcata Readimix has turned in over the years to the County, the CDFG and the Corps is incorrect.</i> 2) <i>The bridge crossing is not located correctly in the operator's plan. The actual bridge location was about 200 feet downstream from the proposed location.</i> 3) <i>The actual area of 2001 bar disturbance is larger than the area indicated on the aerial photograph included in the operator's plan.</i> 4) <i>The pre extraction cross section horizontal and vertical scales are approximate and inconsistent. However, the post extraction cross sections are somewhat better.</i> 5) <i>Two aerial photographs were provided, one hard copy with the plan and one computer disc copy. Both were dated May 7, 2001. The disc copy photograph created some confusion and it was finally determined to be a fall-season photograph from some previous year.</i> 6) <i>The proposed cross section excavations are not shaded, as required in the LOP, in the pre extraction plan. However, they are so indicated in the post extraction cross section data.</i> 7) <i>The operator has not provided CHERT with the LOP required cross section computer files.</i></p>		
<p>Was the extraction volume at this site within the approved plan limits? Yes.</p>		
<p>Was the entire post extraction footprint essentially within the approved plan limits? No. The actual area of bar disturbance is significantly greater than that shown on the pre extraction aerial photograph in the operator's plan.</p>		
<p>Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.</p>		

<p>Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Essentially, yes. However, there was some vegetation removed from the horizontal buffer area.</i></p>
<p>Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No. The May 7, 2001 photograph indicates that a horizontal buffer of 30 to 100 feet was to be maintained between the left edge of the extraction area and the water's edge. The fall photograph indicates that most of that horizontal buffer was disturbed by scraping. Approximately 50 feet of horizontal buffer was supposed to be left along the right side of the extraction. The fall photograph indicates that most of that horizontal buffer was also disturbed by scraping.</i></p>
<p>Was the entire post extraction surface essentially free draining? <i>Yes.</i></p>
<p>Does it appear that all stream crossings were reasonably installed and removed? <i>The bridge installation and removal appears reasonable. However, the pre extraction plan places the bridge crossing about 200 feet upstream from where it was actually located.</i></p>
<p>Are all other extraction compliance issues within expected limits? <i>Yes.</i></p>
<p>Were impacts within expected limits? <i>No. The unexpected loss of horizontal buffer around the extraction area simplifies shoreline habitat and topography and creates the possibility of significant adverse impacts to riparian and aquatic wildlife that would have otherwise utilized this habitat.</i></p>
<p>If impacts were not within expected limits, how could have these impacts been avoided or reduced? <i>Require the operator to survey, stake and paint the buffer and extraction area boundaries prior to the CHERT pre extraction site review. Require the operator to carefully explain the boundary markings to equipment operators in the presence of knowledgeable regulatory witnesses prior to beginning extraction.</i></p>
<p>Are there any other compliance or program issues? <i>Yes. This operator's payments to CHERT are significantly past due. The operator claimed that the volume extracted from this site is proprietary and has requested CHERT to not release said volume; CHERT has honored this request.</i></p>

2001 CHERT Johnson-Spini Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Two		
Area ID: Left Bank Bar	Method of Extraction: Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
13,870	<i>The operator claims that the volume harvested from this site is proprietary and has requested CHERT to not release the extracted volume.</i>	
Compliance and Effectiveness Evaluation		
<p>Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. 1) Surveying datum are not indicated on the cross sections or anywhere else in the project materials. By comparing the submitted cross sections with another survey of this area, CHERT concludes that Arcata Readimix has consistently used an incorrect vertical datum. It is likely that all of the required topographic monitoring data that Arcata Readimix has turned in over the years to the County, the CDFG and the Corps is incorrect. 2) The pre extraction cross section horizontal and vertical scales are approximate and inconsistent. However, the post extraction cross sections are somewhat better. 3) Cross section 4a is not shown in the pre extraction plan or in the post extraction package. Had it been so shown, it is likely that the over extraction at the head of the bar could have been avoided. 4) The proposed excavations are not shaded, as required in the LOP, in the pre extraction plan. However, they are so indicated in most of the post extraction data. 5) The operator has not provided CHERT with the required cross section computer files.</i></p>		
<p>Was the extraction volume at this site within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No. A condition of the plan approval was that the excavation floor would begin to rise at cross section 13 and would daylight at cross section 4. (The distance between cross section 13 and cross section 4 is 160 feet.) Arcata Readimix clearly agreed to do this and it was made a condition of the plan approval. Apparently, neither the surveyor nor the equipment operators were informed of this condition. Instead, the operators maintained the elevation of the excavation floor while moving upstream from cross section 13 for a distance of about 120 feet to 140 feet (distance varied) and then abruptly rose 2 to 3 feet to daylight (within 20 to 40 feet) at cross section 4. A schematic sketch follows.</i></p>		
<p>Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Were the vertical and horizontal buffers essentially within the approved plan limits? <i>At the time of the post extraction inspection, the vertical buffer between the excavation floor and low flow water surface was only a few inches at several locations along the edge of the excavation.</i></p>		
<p>Was the entire post extraction surface essentially free draining? <i>No. After the bar was inundated, water ponded at the upstream end of the excavation.</i></p>		
<p>Does it appear that all stream crossings were reasonably installed and removed? <i>There was no bridge required for this excavation. However, a bridge was located on this bar to gain access to the right bank bar. The bridge installation and removal appears reasonable. The bridge crossing was actually about 200 feet downstream from where the plan indicated that it was supposed to be located.</i></p>		

Are all other extraction compliance issues within expected limits? No. On September 7, 2001 CHERT was notified by the Humboldt County Planning Department that Arcata Readimix does not possess a mining right for the left bank bar and that Arcata Readimix must cease mining on that bar.

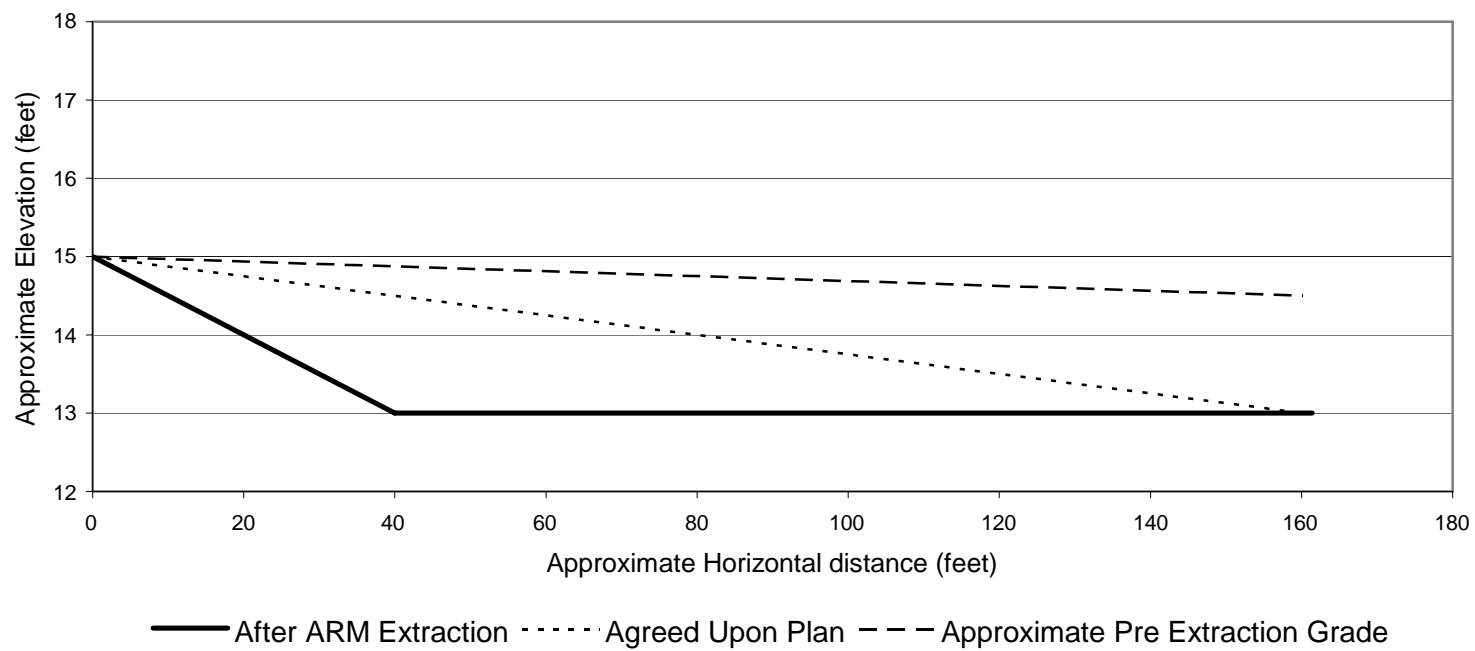
Were impacts within expected limits? No. This is the second year in a row that this operator has violated their permit conditions at this bar. In October 2000, after their Corps permit had expired, Arcata Readimix removed gravel from the head of this bar; more specifically they significantly lowered the bar surface at the head of the overflow channel. Consequently, a significant portion of this bar was eroded away and washed downstream during the relatively low flows experienced during the winter of 2000-2001. The gullies formed in the bar surface are easily seen in the May 7, 2001 aerial photograph. This significantly altered the form and reduced the function of the bar. This also resulted in excess sediment being washed from the gullies into the main channel near cross section 13 and between cross sections 5 and 6.

During the summer of 2001, Arcata Readimix again violated their permit agreement and over extracted at the head of the bar. This violation significantly depleted the mass of gravel at the head of the bar. CHERT and others had predicted that this extraction violation, in combination with the 2000 excavation would likely divert much of the stream and cause it to flow over the head of the bar. The effects would be: 1) to capture and divert the main flow, 2) create a braided flow, 3) wash away much of the bar surface and 4) reduce the quality of salmonid habitat. During an inspection in March 2002 CHERT observed that these effects did in fact occur. The head of the bar was gone and the sediment from the head of the bar had been swept downstream. In recent years, at this time the stream flow at this location would be confined to a single well-defined channel crossing over a riffle upstream of the bar. However, at the time of the March 2002 visit the streamflow was braided, i.e., divided into five smaller much shallower channels across the remaining bar surface resulting in a significant reduction in salmonid habitat quality. Salmonid smolts migrating downstream at this time were subjected to an increased risk of predation and stranding.

If impacts were not within expected limits, how could have these impacts been avoided or reduced? Had the operator submitted cross section 4a with their plan CHERT would likely have noticed that the surveyor was not aware of the agreement that had been reached during consultations with CHERT, the California Department of Fish and Game and Arcata Readimix. Action could then have been taken to communicate the approved plan throughout the Arcata Readimix organization. Had CHERT required additional planning survey information, for example a sketch of the pre extraction and proposed bar surface profile, CHERT would likely have noticed that the surveyor was not aware of the agreement. Action could then have been taken to communicate the approved plan throughout the Arcata Readimix organization. CHERT provided a written description of the plan concept. If the operator had read the agreement and communicated its content to their surveyor their surveyor would have understood the plan concept or at least might have questioned the apparent differences between what the operator wanted to do and the CHERT recommendation. When in doubt, the Corps or CDFG could require the operator to carefully explain the excavation plan to their consultants and surveyors in the presence of knowledgeable regulatory witnesses. Furthermore, the plan and boundary markings could be explained to equipment operators in the presence of knowledgeable regulatory witnesses prior to beginning extraction.

Are there any other compliance or program issues? Yes. This operator's payments to CHERT are significantly past due. The operator claimed that the volume extracted from this site is proprietary and has requested CHERT to not release said volume; CHERT has honored this request.

Schematic of Various 2002 Grades at Johnson-Spini Left Bank Bar



2001 CHERT Essex Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Mercer Fraser	Lower Mad River	Essex Bar
Agent for the Operator: Mercer Fraser & Streamline Planning		
Plan Development		
<i>Walt Dragoloski (Mercer Fraser Corp.) and CHERT reviewed the Essex Bar on July 30, 2001. We developed an extraction proposal that would provide a vertical buffer of about two feet at the upstream end of the bar and about 1.5 feet at the downstream end of the bar. The expected volume was 2,040 cubic yards. On August 1, 2001, CHERT recommended the plan be approved as submitted. Mercer Fraser chose not to extract at this site in 2001.</i>		
Number of Extraction Areas at this Operator-Site: One		
Area ID: None	Method of Extraction: Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
2,040	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No Extraction</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No Extraction</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No Extraction</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No Extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No Extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No Extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not Applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>No Extraction.</i>		
Were impacts within expected limits? <i>No Extraction</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Johnson Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Redwood Empire Aggregates	Lower Mad River	Johnson Bar
Agent for the Operator: Pacific Affiliates		
Plan Development		
<p><i>CHERT and Pacific Affiliates conducted a site review at the Johnson Bar on May 10, 2001. On June 20, 2001, CHERT received a mining proposal from Pacific Affiliates. On June 28, 2001, CHERT met to review the plan, which was to skim about 4,000 cubic yards from the upper end of the point bar. CHERT recommended the plan be slightly modified to further protect a hardy stand of willows along the edge of the low flow channel. On June 30, 2001, CHERT received a revised plan (dated June 29th) incorporating the change suggested on June 28th. On July 2, 2001 CHERT issued a recommendation to approve the plan as submitted on June 29th.</i></p>		
Number of Extraction Areas at this Operator-Site: One		
Area ID: None	Method of Extraction: Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
3,980	4,430	111
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? <i>No, the approved volume was slightly exceeded.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Essentially, yes. However, the cross sections indicate that much of the finished bar surface was 0.1 to 0.2 feet too low. This slight deviation in elevation produced the 450 cubic yard over extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes. <i>The vertical offset between the skim floor and the May 1 water surface was very close to 1 foot.</i>		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? Yes.		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

2001 CHERT Christie Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Eureka Sand & Gravel	Lower Mad River	Christie Bar
Agent for the Operator: Pacific Affiliates		
Plan Development		
<p><i>This was a complicated project. CHERT began receiving correspondence about this project from Pacific Affiliates on May 4, 2001. Our final recommendations for this project were issued on September 7, 2001. Between these two dates there were various proposals and plan modifications in an attempt to obtain an adequate volume of aggregate for the operator while minimizing potential adverse impacts to the river ecosystem. Several skim and flood plain pits were reviewed. Two shallow floodplain pits were recommended for approval and later modified to obtain increased volume.</i></p>		
Number of Extraction Areas at this Operator-Site: Two		
Area ID: 1	Method of Extraction: Shallow Floodplain Pit	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
34,740	28,630	82
Compliance and Effectiveness Evaluation		
<p>Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. CHERT did not receive an aerial photograph map of the final approved project.</i></p>		
<p>Was the extraction volume at this site within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction surface essentially free draining? <i>Not applicable</i></p>		
<p>Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i></p>		
<p>Are all other extraction compliance issues within expected limits? <i>Yes.</i></p>		
<p>Were impacts within expected limits? <i>Yes.</i></p>		
<p>If impacts were not within expected limits, how could have these impacts been avoided or reduced?</p>		
<p>Are there any other compliance or program issues? <i>No.</i></p>		

2001 CHERT Christie Bar Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Two		
Area ID: 4	Method of Extraction: Shallow Floodplain Pit	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
24,140	20,460	85
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. CHERT did not receive an aerial photograph map of the final approved project.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Not applicable</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Blue Lake Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Redwood Empire Aggregates	Lower Mad River	Blue Lake Bar
Agent for the Operator: Pacific Affiliates		
Plan Development		
<p>CHERT and Pacific Affiliates conducted a preliminary site review at the Blue Lake Bar on May 10, 2001. Three proposed extraction areas were selected. On June 20, 2001 CHERT received a mining plan from Pacific Affiliates that largely reflected the May 10 proposals. Area 1 was a dry trench in the overflow channel near the right bank levee at the upstream portion of the bar. Near the middle of the overflow channel, the dry trench ends in a small flood plain pit. This pit is at approximately the same location of a pit that was excavated in 1994 and later filled back in during high flows. Area 2 was a right bank skim near the apex of the bar (6,370 cubic yards). Area 3 was a right bank pit in an active channel terrace about 400 feet upstream from the mouth of Powers Creek. On June 28, 2001, after reviewing the plan, CHERT recommended deleting Area 2. CHERT recommended that Area 1 be shortened at the upstream end of the overflow channel and that Area 3 be expanded to help compensate for volume lost by deleting Area 2.</p>		
Number of Extraction Areas at this Operator-Site: Two		
Area ID: Area 1	Method of Extraction: Dry trench in Overflow Channel Terminating in a Pit	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
6,930	7,590	110
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? <i>No. The approved volume was slightly exceeded.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not Applicable.</i>		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Blue Lake Bar Post Extraction Review (continued)		
Number of Extraction Sites at this operator-site: Two		
Area ID: Area 3	Method of Extraction: Deep Pit on Low Terrace near Right Edge of Active Channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
17,040	16,030	94
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? <i>Not applicable</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not Applicable.</i>		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Emmerson Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Redwood Empire Aggregates	Lower Mad River	Emmerson Bar
Agent for the Operator: Pacific Affiliates		
Plan Development		
<p><i>On June 28, 2001 CHERT recommendations were made for the Emmerson Bar. Due to a lack of replenishment, no skim areas were proposed. CHERT reviewed Pacific Affiliates proposals and then recommended three potential extraction areas: Area 1) a right bank dry trench located upstream of an overflow channel (approximately 3,800 cubic yards); Area 2) a right bank dry trench located in the downstream portion of the overflow channel (approximately 2,200 cubic yards) and Area 3) a left bank floodplain pit (approximately 7,400 cubic yards). During the extraction of Area 3 mud and silt was encountered and the extraction was modified to avoid this material. To compensate for the reduced volume from Area 3, CHERT revisited the site on September 14, 2001 and reviewed alternatives proposed by Pacific Affiliates. Three areas were considered and a plan for a right bank flood plain pit (Area 4) was developed. On September 18, 2001, CHERT received an extraction plan for Area 4 (approximately 6,000 cubic yards) from Pacific Affiliates. On September 18th, CHERT recommended that the revised plan for Area 4 be approved.</i></p>		
Number of Extraction Areas at this Operator-Site: Four		
Area ID: Area 1	Method of Extraction: Shallow Dry Trench in Old Channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
3830	3400	89
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? Yes.		
Are all other extraction compliance issues essentially within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

2001 CHERT Emmerson Bar Post Extraction Review (continued)		
Number of Extraction Sites at this operator-site: Four		
Area ID: Area 2	Method of Extraction: Shallow Dry Trench in Old Channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
2160	2320	107
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No, the approved volume was slightly exceeded.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Emmerson Bar Post Extraction Review (continued)		
Number of Extraction Sites at this operator-site: Four		
Area ID: Area 3	Method of Extraction: Left Bank Frequent Flood Plain Pit	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
7710	6800	88
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Not Applicable</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No bridge crossing required for this excavation.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Emmerson Bar Post Extraction Review (continued)		
Number of Extraction Sites at this operator-site: Four		
Area ID: Area 4	Method of Extraction: Right Bank Frequent Flood Plain Pit	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
6,000	6,310	105
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No, the approved volume was slightly exceeded..</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Not applicable</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Guynup Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Mad River Sand & Gravel	Lower Mad River	Guynup Bar
Plan Development		
<p><i>A preliminary CHERT field review was conducted on June 27, 2001. At that time the operator's agent proposed two extraction areas: 1) a wide, deep right bank trench adjacent to the low flow channel opposite the processing plant (16,490 cubic yards) and 2) a left bank bench skim near the upstream end of the permitted area (29,200 cubic yards). Following additional office review CHERT recommended the trench not be approved because it would exacerbate the channel braiding experienced at this site in recent years. The proposed bench skim provided sufficient (2-3 feet) vertical offset above the low flow water surface. CHERT recommended that the bench skim be approved.</i></p>		
Number of Extraction Areas at this Operator-Site: One		
Area ID: Area 1	Method of Extraction: Left Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
29,200	15,010	51
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
<p>Was the entire post extraction footprint essentially within the approved plan limits? <i>No. A comparison of the pre extraction aerial photograph and the post extraction aerial photograph indicates that the operator strayed outside the approved plan along the landward edge between cross sections three and four. As interpreted from the aerial photographs, the dimensions of the expansion area are approximately 50 feet by 200 feet, equivalent to 10,000 square feet or 0.2 acres. This deviation does not show up on the cross sections because the majority of it took place between two cross sections.</i></p>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
<p>Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No. The landward area of disturbance between cross sections three and four was occupied by the palustrine scrub-shrub broad-leaved evergreen vegetative type with coyote brush, as the dominant species. About 0.2 acre of this type was unnecessarily disturbed by scraping and windrowing the coyote brush along the landward edge of the disturbance. This created a berm of dead and dying vegetation, silt, fine sand and gravel along the landward edge of disturbance.</i></p>		

<p>Were the vertical and horizontal buffers essentially within the approved plan limits?</p> <p><i>No. Along the water's edge the extraction surface was two to three feet above the low water surface. This degree of vertical buffer is adequate. The extraction area is adjacent to a wide shallow riffle and the vertical buffer helped to confine flow and sustain fish passage after moderate stream flow rises during the early Fall. However, the encroachment into the palustrine scrub-shrub broad-leaved evergreen vegetative type along the landward edge indicates a total lack of horizontal buffer between the extraction surface and adjacent vegetation.</i></p>
<p>Was the entire post extraction surface essentially free draining? Yes.</p>
<p>Does it appear that all stream crossings were reasonably installed and removed? <i>Not Applicable.</i></p>
<p>Are all other extraction compliance issues essentially within expected limits? Yes.</p>
<p>Were impacts within expected limits? <i>No.</i></p> <p><i>CHERT did not expect the removal of the vegetation along the landward edge of extraction. It was not indicated on the pre extraction aerial photograph. This riparian vegetation had wildlife habitat value. The landward edge berm now reduces the amount and degree of floodwaters passing over the remaining vegetation. This reduces the amount of silt and fine sand that would otherwise be deposited on the surface and thus is impeding normal soil development processes.</i></p>
<p>If impacts were not within expected limits, how could have these impacts been avoided or reduced?</p> <p><i>The vegetation removal did not produce a significant volume of gravel for the operator. Most, if not all, of the material that was scraped from the surface ended up in the berm. There were survey stakes remaining at the site indicating excavation should occur where the vegetation was located. Therefore, we are not sure why the impacts occurred. The impacts could have been avoided by establishing and enforcing a horizontal buffer between the extraction surface and adjacent vegetation, by requiring the operator to clearly mark the excavation boundaries before CHERT makes a final inspection of the site, and by making sure that the operator understands that there should be no berm between the excavation surface and the adjacent vegetation.</i></p>
<p>Are there any other compliance or program issues? <i>No.</i></p>

LOWER EEL RIVER

2001 CHERT Worswick Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Humboldt County	Lower Eel River	Worswick Bar
Agent for the Operator: Humboldt County Public Works		
Plan Development		
<p><i>CHERT reviewed this site with Humboldt County representatives on April 27, 2001 and developed preliminary recommendations for an extraction plan. On June 18, 2001, CHERT received an extraction plan from the County that reflected the field discussions. On July 8, 2001, CHERT recommended that the plan be approved. On October 29, 2001, CHERT was notified that the County did not extract any material from this site in 2001.</i></p>		
Number of Extraction Areas at this Operator-Site: One		
Area ID: Worswick Bar	Method of Extraction: Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
17,460	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Drake Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Mallard Pond	Lower Eel River	Drake Bar
Agent for the Operator: Streamline Planning		
Plan Development		
<i>CHERT did not review this site and the operator did not submit an extraction plan.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID: Drake Bar	Method of Extraction: No plan prepared for this site.	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Sandy Prairie Plant B Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Mercer Fraser Corp.	Lower Eel River	Sandy Prairie Plant B
Agent for the Operator: Keith Hess		
Plan Development		
<i>Plant B is permitted for up to 200,000 cubic yards per year. Four extraction sites were approved yielding a potential 199,500 cubic yards, most of which would be skimmed from dry overflow channels. In the end, 29,740 cubic yards were excavated from only one of the approved areas (B-2).</i>		
Number of Extraction Areas at this Operator-Site: Four		
Area ID: B-1	Method of Extraction: Bench Skim of Point Bar	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
25,860	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction..</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Sandy Prairie Plant B Post Extraction Review		
Number of Extraction Areas at this Operator-Site: Four		
Area ID: B-2	Method of Extraction: Skim in Dry Overflow Channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
106,240	29,740	28
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. The post extraction cross sections are incomplete. The actual extraction is shown (shaded) but the approved extraction cross-sections and areas are not shown. The same is true for the post extraction monitoring cross sections.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Sandy Prairie Plant B Post Extraction Review		
Number of Extraction Areas at this Operator-Site: Four		
Area ID: B-3	Method of Extraction: Skim in Dry Overflow Channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
19,960	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? Yes.		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Sandy Prairie Plant B Post Extraction Review		
Number of Extraction Areas at this Operator-Site: Four		
Area ID: B-4	Method of Extraction: Skim in Dry Overflow Channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
47,440	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Sandy Prairie Plant A Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Mercer Fraser Corp.	Lower Eel River	Sandy Prairie Plant A
Agent for the Operator: Keith Hess		
Plan Development		
<p><i>The plan for Plant A includes five optional sites providing no more than 70,000 cubic yards. Sandy Prairie is a large feature and the optional site method is used because some excavations do not produce the kind of aggregate that the company needs. When this occurs they can shape and reclaim the partially excavated site and move on to another pre approved site that would likely produce the material they need. The operator has been quite good about reclaiming partial excavations and keeping CHERT informed when changes are being contemplated. They also request CHERT assistance when they need advice on these matters. As a result, CHERT approved 144,120 cubic yards for extraction from up to 5 areas with the understanding that the Plant A County permit limits the total extraction to 70,000 cubic yards. In the end, Mercer Fraser extracted a total of 60,850 cubic yards from three of the five sites. CHERT has recommended that Mercer Fraser dig and refill some small exploratory pits so they can get better pre harvest estimates of the aggregate quality that can be obtained from various areas within their operating area</i></p>		
Number of Extraction Areas at this Operator-Site: Up to five areas		
Area ID: A-1	Method of Extraction: Right Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Up to 25,820	16,100	62
Compliance and Effectiveness Evaluation		
<p>Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. The post extraction cross sections are incomplete. The actual extraction is shown (shaded) but the approved extraction cross-sections and areas are not shown. The same is true for the post extraction monitoring cross sections.</i></p>		
<p>Was the extraction volume at this site within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction surface essentially free draining? <i>Yes.</i></p>		
<p>Does it appear that all stream crossings were reasonably installed and removed? <i>No bridge required for this excavation.</i></p>		
<p>Are all other extraction compliance issues within expected limits? <i>Yes.</i></p>		
<p>Were impacts within expected limits? <i>Yes.</i></p>		
<p>If impacts were not within expected limits, how could have these impacts been avoided or reduced?</p>		
<p>Are there any other compliance or program issues? <i>No.</i></p>		

2001 CHERT Sandy Prairie Plant A Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Up to five areas		
Area ID: A-2	Method of Extraction: Left Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Up to 36,440	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction..</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Sandy Prairie Plant A Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Up to five areas		
Area ID: A-3	Method of Extraction: Bench Skim near Left Edge of Active Channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Up to 18,220	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Sandy Prairie Plant A Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Up to five areas		
Area ID: A-4	Method of Extraction: Left Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Up to 43,700	28,120	64
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. The post extraction cross sections are incomplete. The actual extraction is shown (shaded) but the approved extraction cross-sections and areas are not shown. The same is true for the post extraction monitoring cross sections.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Sandy Prairie Plant A Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Up to five areas		
Area ID: A-5	Method of Extraction: Shallow Dry Trench Terminating in a Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Up to 19,940	16,630	83
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. The post extraction cross sections are incomplete. The actual extraction is shown (shaded) but the approved extraction cross-sections and areas are not shown. The same is true for the post extraction monitoring cross sections.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Yes.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Hansen Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Charlie Hansen	Lower Eel River	Hansen Bar
Agent for the Operator: Pacific Affiliates		
Plan Development		
<p><i>On July 9, 2001, CHERT received an email request for advice on how to design the Hansen extraction, recognizing that there was very little replenishment at this site. On July 14, 2001, CHERT advised Pacific Affiliates to raise the previous extraction floor by 0.5 feet and to extend the extraction area laterally away from the dry channel. On July 27, 2001, CHERT and Pacific Affiliates visited the site to review the proposed plan. On July 31, 2001, CHERT recommended that the plan be approved. On August 10, 2001, CHERT recommended that the plan be modified slightly to better transition into the Hauck Plan located immediately upstream.</i></p>		
Number of Extraction Areas at this Operator-Site: One		
Area ID: Hansen Bar	Method of Extraction: Bench Skim adjacent to Left Bank Dry Channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
40,630	42,860	105
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? No. <i>The approved volume was slightly exceeded.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? No. <i>There are seven cross sections in the extraction area. At two of these, the operator had gone at least 10 feet beyond the extraction plan limit along the landward edge. There was no significant resource damage associated with the error.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? No. <i>There are seven cross sections in the extraction area. At three of these, the operator had gone at least 1 foot below the extraction plan limit. It appears that there was no significant resource damage associated with the error.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes, <i>except as noted above.</i>		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? Yes.		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

2001 CHERT Hauck Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Eureka Sand & Gravel	Lower Eel River	Hauck Bar
Agent for the Operator: Pacific Affiliates		
Plan Development		
<p><i>During a field review CHERT concurred with a Pacific Affiliates proposal to extract approximately 60,000 cubic yards of gravel along the left side of a mid channel bar. About two weeks latter CHERT received a plan that agreed with the previous field discussions plus a proposal to extract 14,240 cubic yards from an additional right bank skim. The additional area has been skimmed on a regular basis but did not replenish well after the low flows experienced during the winter of 2000-2001. CHERT recommended that the plan for the mid channel bar be approved. CHERT further recommended that no extraction occur at the right bank skim and said that they would be willing to schedule another site visit if the operator wanted to seek other alternatives. No such request was made and the operator proceeded with the skim on the mid channel bar.</i></p>		
Number of Extraction Areas at this Operator-Site: One		
Area ID: Hauck Bar	Method of Extraction: Bench Skim adjacent to a dry channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
59,820	39,990	67
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? Yes.		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

LOWER VAN DUZEN RIVER

2001 CHERT Leland Rock Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Rock & Gadburry	Van Duzen River	Leland Rock
Agent for the Operator: Keith Hess		
Plan Development		
<i>Several proposals were considered during the development of this plan. On August 10, 2001 CHERT recommended approving two extraction sites. Area A is a 63,400 cubic yard skim along the Eel River at the terminus of the Van Duzen River delta. Area E is a 29,300 cubic yard wetland pit on the right bank terrace upstream from the highway and railroad bridges.</i>		
Number of Extraction Areas at this Operator-Site: Two		
Area ID: A	Method of Extraction: Bench Skim adjacent to the Eel River	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
63,400	62,930	99
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? Yes.		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

2001 CHERT Leland Rock Bar Post Extraction Review (continued)		
Area ID: E	Method of Extraction: Shallow Floodplain Pit	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
29,300	22,690	77
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? Yes.		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? Yes. <i>Past extractions upstream of the bridges were allowed to take too much material from the head of the bar. Consequently the river changed course and much of the flow was directed across the bar, forming a wide braided shallow reach upstream of the bridges. It will be necessary to limit skimming on this bar until the head of the bar can build up and redirect the flow toward a deeper single thread channel along the left bank. It will remain necessary to limit skimming near the upstream end of this bar to prevent this impact from occurring in the future. CHERT recommends that the operator consult with the Highway 101 and railroad bridge authorities to see if it would be possible to extract at the downstream end of this bar, within 500 feet of the bridges.</i>		

2001 CHERT Van Duzen River Ranch Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Jack & Mary Noble	Van Duzen River	Van Duzen River Ranch
Agent for the Operator: Wallace Wright		
Plan Development		
<i>An extraction plan was developed and approved for this site in 2000. No extraction occurred in 2000 and the low flows of winter 2000-2001 created no substantial changes in channel morphology. The 2001 extraction plan was identical to the 2000 extraction plan, basically three point bar skims.</i>		
Number of Extraction Areas at this Operator-Site: Three		
Area ID: Area 4	Method of Extraction: Bench Skim on Point Bar	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
26,660	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Aerial photographs were not dated.</i>		
Was the extraction volume at this site within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>There was no vegetation disturbance due to extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>There was no extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>There was no extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Van Duzen River Ranch Post Extraction Review (continued)		
Area ID: Area 5	Method of Extraction: Bench Skim on Point Bar	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
18,000	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Aerial photographs were not dated.</i>		
Was the extraction volume at this site within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>There was no vegetation disturbance due to extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>There was no extraction..</i>		
Was the entire post extraction surface essentially free draining? <i>There was no extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>The location of a necessary bridge crossing was not shown on the plan. Because there was no extraction there was no gravel extraction bridge.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>There was no extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Van Duzen River Ranch Post Extraction Review (continued)		
Area ID: Area 6	Method of Extraction: Bench Skim on Point Bar	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
24,000	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Aerial photographs were not dated.</i>		
Was the extraction volume at this site within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>There was no extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>There was no extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>There was no extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Tom Bess Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Tom Bess	Van Duzen River	Bess Bar
Agent for the Operator: Baird Engineering		
Plan Development		
<i>The operator did not submit an extraction plan for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID: Bess Bar	Method of Extraction: <i>No plan prepared for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
<i>No extraction plan was submitted for this site.</i>		
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan was submitted and no aerial photographs were submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>There was no extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>There was no vegetation disturbance due to extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>There was no extraction..</i>		
Was the entire post extraction surface essentially free draining? <i>There was no extraction..</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>There was no extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

MIDDLE REACH OF EEL RIVER

2001 CHERT Scotia Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	Scotia Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
<i>The operator did not submit an extraction plan for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID:	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
<i>No extraction plan submitted for this site.</i>		
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Truck Shop Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	Truck Shop Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
<i>The operator did not submit an extraction plan for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID:	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
No extraction plan submitted for this site		
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Dinner Creek Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	Dinner Creek Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
<i>The operator did not submit an extraction plan for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID:	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
No extraction plan submitted for this site		
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Three Mile Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	Three Mile Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
<i>CHERT conducted a field review of this site on June 8, 2001. A preliminary extraction design was discussed. On July 6 CHERT received a plan that reflected the June 8 discussions. On July 8 CHERT recommended that the plan be slightly modified and approved.</i>		
Number of Extraction Areas at this Operator-Site: One		
Area ID:	Method of Extraction: Right Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
29,170	20,790	71
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Elinor Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	Elinor Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
<p><i>A preliminary field review of the site was conducted on July 6, 2001. On September 2, CHERT received a mining plan from PALCO that was for the most part consistent with our field discussions. However, the footprint of the plan had been enlarged by extending the extraction 50 to 60 feet further into the terrace than previously discussed. On September 14, CHERT reiterated our original recommendation in order to retain confinement of moderate flows. We further suggested that the skim floor could be lowered by one foot. On September 18, we received a revised plan reflecting these recommendations. On September 18, CHERT recommended that the revised plan be approved. The plan provided four to five feet of vertical buffer and between 80 and 120 feet of horizontal buffer between the extraction area and the low flow channel.</i></p>		
Number of Extraction Areas at this Operator-Site: One		
Area ID:	Method of Extraction: Right Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
22,840	12,550	55
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Larabee Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	Larabee Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
<p><i>Following a field visit on July 6, 2001 CHERT received a preliminary mining plan from PALCO on August 15 that reflected field discussions for excavating a trench on a mid channel bar at the Larabee Bar site. Upon review, CHERT noted that 10:1 end slopes extended all the way to the trench bottom. We communicated to PALCO that this was not necessary and that they could increase their volume output by extending the 10:1 end slopes only to a few feet below the anticipated ground water level. PALCO submitted a revised plan on August 30 and CHERT recommended its approval on August 30. We also recommended that the trench sidewalls be pushed down into the trench at several locations on both sides of the trench to allow for easier egress should someone decide to go for a swim.</i></p>		
Number of Extraction Areas at this Operator-Site: One		
Area ID:	Method of Extraction: Deep Trench with shallow end slopes	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
5,360	2,180	41
Compliance and Effectiveness Evaluation		
<p>Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. Post extraction aerial photographs were taken before trench excavation began. CHERT received an October 11, 2001 notice from PALCO indicating that extraction and grading activity was complete. Aerial photographs were taken on October 4 and October 12, 2001.</i></p>		
<p>Was the extraction volume at this site within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i></p>		
<p>Was the entire post extraction surface essentially free draining? <i>Yes.</i></p>		
<p>Does it appear that all stream crossings were reasonably installed and removed? <i>Yes. This site uses a multiple use summer bridge.</i></p>		
<p>Are all other extraction compliance issues within expected limits? <i>Yes.</i></p>		
<p>Were impacts within expected limits? <i>Yes.</i></p>		
<p>If impacts were not within expected limits, how could have these impacts been avoided or reduced?</p>		
<p>Are there any other compliance or program issues? <i>No.</i></p>		

2001 CHERT South Fork Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	South Fork Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
<i>The operator began a plan for this site but did not complete it.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID:	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
<i>No extraction plan was submitted for this site.</i>		
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Bowlby Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	Bowlby Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
A preliminary field review of the site was conducted on June 8, 2001. On June 16, CHERT received a mining plan from PALCO that was consistent with our field discussions. The plan left more than 8 feet of vertical buffer and between 80 to 200 feet of horizontal buffer between the extraction area and the low flow channel. On June 19, CHERT recommended that the plan be approved as presented.		
Number of Extraction Areas at this Operator-Site: One		
Area ID:	Method of Extraction: Right Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
29,930	28,240	94
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? Yes. <i>This site uses a multiple use summer bridge.</i>		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

2001 CHERT Vroman Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	Vroman Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
A field visit was conducted at this site on July 6, 2001; those present developed an extraction plan. On July 21 CHERT received a plan that reflected the July 6 discussions. On July 25 CHERT recommended that the plan be approved.		
Number of Extraction Areas at this Operator-Site: One		
Area ID:	Method of Extraction: Left Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
29,130	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Maynard Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Pacific Lumber Company	Middle Eel River Reach	Maynard Bar
Agent for the Operator: Pacific Lumber Company		
Plan Development		
<i>No plan submitted for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID:	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
<i>No plan submitted for this site.</i>		
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

SOUTH FORK EEL RIVER

2001 CHERT Wallan & Johnson Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Wallan & Johnson	South Fork Eel River	Wallan & Johnson
Agent for the Operator: Streamline Planning		
Plan Development		
<p><i>On May 11, May 29 and June 14, 2001 CHERT made extraction planning site visits at Wallan & Johnson. During the June 14 visit CHERT reviewed cross sections and recommended some minor revisions to a draft extraction proposal. On June 22 CHERT received a completed extraction plan. On July 12 CHERT recommended that the June 22 plan to extract 10,000 cubic yards be approved as submitted. On October 25 CHERT conducted a post extraction site review.</i></p>		
Number of Extraction Areas at this Operator-Site: One		
Area ID: Wallan & Johnson	Method of Extraction: Bench Skim – leaving some vegetation between skim area and river	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
10,000	9,040	90
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? No. <i>The left end of cross section 6E is about one foot too low.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? No crossings		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

2001 CHERT Randall Sand & Gravel Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Randall Sand & Gravel	South Fork Eel River	Randall
Agent for the Operator: Streamline Planning		
Plan Development		
<p><i>On May 11, May 29 and June 14, 2001 CHERT made extraction planning site visits at Randall Sand & Gravel. During the June 14 visit, CHERT reviewed cross sections and recommended some minor revisions to a draft extraction proposal. CHERT obtained the final extraction plan on June 15. On June 18 CHERT recommended that the June 15 plan to extract a total of 26,060 cubic yards from three sites be approved. On October 25 CHERT conducted a post extraction site review.</i></p>		
Number of Extraction Areas at this Operator-Site: Three		
Area ID: 1 (County Bar)	Method of Extraction: Bench Skim County Bar adjacent to river – leaving some vegetation between skim area and river	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
5,100	2,277	45
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. There was an error in the original volume calculation.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No. The right edge of XS 1E is about one foot too low.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No crossings.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Randall Sand & Gravel Bar Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Three		
Area ID: 2 (Park Bar)	Method of Extraction: Right Bank Bench Skim adjacent to river	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
5,410	4,320	80
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? No. At XS 5 the left edge of extraction adjacent to the river was about a foot below grade.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? No. The vertical buffer at XS 5 was less than approved but was greater than one foot above the fall 2001 water surface.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? No crossings.		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

2001 CHERT Randall Sand & Gravel Bar Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Three		
Area ID: 3 (Main Bar)	Method of Extraction: Bench Skim bar adjacent to river	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
15,550	10,955	70
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No crossing.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Cooks Valley Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Mercer Fraser	South Fork Eel River	Cooks Valley
Agent for the Operator: Streamline Planning		
Plan Development		
<p><i>On May 11, May 29, and June 14, 2001 CHERT made extraction planning site visits at Cooks Valley. During the June 14 visit, CHERT reviewed cross sections and recommended some minor revisions to a draft extraction proposal. CHERT obtained the final extraction plan later that same day. On June 18 CHERT recommended that the June 14 plan to extract a total of 16,220 cubic yards from four sites in Mendocino county and 15,820 cubic yards from five sites in Humboldt County be approved. On October 25, CHERT conducted a post extraction site review.</i></p>		
Number of Extraction Areas at this Operator-Site: Nine		
Area ID: 1 (Mendocino County)	Method of Extraction: Skim left bank bar adjacent to river – leaving some vegetation between skim area and river	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
1,815	1,756	97
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? No crossing.		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

2001 CHERT Cooks Valley Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Nine		
Area ID: 2 (Mendocino County)	Method of Extraction: Wet trench across head of bar	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
8,808	4,660	53
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Not applicable</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No crossing.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Cooks Valley Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Nine		
Area ID: 3 (Mendocino County)	Method of Extraction: Left Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
5,600	4,530	81
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. There was an error in the pre extraction volume calculations. The incorrect pre extraction volume calculation for this site was 3,529 cubic yards. The correct volume was 5,600 cubic yards.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No crossing.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Cooks Valley Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Nine		
Area ID: 4 (Humboldt County)	Method of Extraction: Left Bank Bench Skim at downstream portion of bar	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
1,486	1,474	99
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No crossings.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Cooks Valley Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Nine		
Area ID: 5 (Humboldt County)	Method of Extraction: Alcove at downstream end of overflow channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
1,899	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No crossings.</i>		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Cooks Valley Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Nine		
Area ID: 6 (Humboldt County)	Method of Extraction: Left Bank Bench Skim downstream of alcove	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
1,711	1,209	71
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Yes.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No crossings.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Cooks Valley Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Nine		
Area ID: 7 (Humboldt County)	Method of Extraction: Right bank trench at mouth of tributary	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
3,702	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? No extraction		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? No extraction		
Was the amount of vegetation disturbance essentially within the approved plan limits? No extraction		
Were the vertical and horizontal buffers essentially within the approved plan limits? No extraction.		
Was the entire post extraction surface essentially free draining? No extraction		
Does it appear that all stream crossings were reasonably installed and removed? No extraction <i>and no crossings.</i>		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? No extraction		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Cooks Valley Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Nine		
Area ID: 8 (Humboldt County)	Method of Extraction: Skim at mouth of right bank tributary	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
4,121	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? No extraction		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? No extraction		
Was the amount of vegetation disturbance essentially within the approved plan limits? No extraction		
Were the vertical and horizontal buffers essentially within the approved plan limits? No extraction.		
Was the entire post extraction surface essentially free draining? No extraction		
Does it appear that all stream crossings were reasonably installed and removed? No extraction <i>and no crossings.</i>		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? No extraction		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Cooks Valley Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Nine		
Area ID: 9 (Humboldt County)	Method of Extraction: Right Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
2,904	2,899	100
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes		
Was the entire post extraction surface essentially free draining? Yes		
Does it appear that all stream crossings were reasonably installed and removed? Yes		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

TRINITY RIVER

2001 CHERT Hoopa Valley Ready Mix Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Richard & Margaret Rowland	Trinity River	Rowland Bar
Agent for the Operator: Streamline Planning		
Plan Development		
<i>CHERT and others visited the site on May 21 and June 22, 2001. A plan to extract 14,106 cubic yards from two areas was subsequently recommended for approval.</i>		
Number of Extraction Areas at this Operator-Site: Two		
Area ID: 1	Method of Extraction: Left Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
1,950	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable</i>		
Are all other extraction compliance issues within expected limits? <i>No extraction.</i>		
Were impacts within expected limits? <i>No extraction..</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Hoopa Valley Ready Mix Bar Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Two		
Area ID: 2	Method of Extraction: Left Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
12,156	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable</i>		
Are all other extraction compliance issues within expected limits? <i>No extraction.</i>		
Were impacts within expected limits? <i>No extraction..</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Willow Creek Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Mercer Fraser Corp.	Trinity River	Big Rock Willow Creek Airport
Agent for the Operator: Streamline Planning		
Plan Development		
On June 22, 2001 CHERT and others visited the Willow Creek bar to discuss extraction strategies. On July 29 CHERT recommended a plan to extract 22,500 cubic yards from four sites be approved.		
Number of Extraction Areas at this Operator-Site: Four		
Area ID: 1	Method of Extraction: Right Bank Skim in overflow channel	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
2,530	2,570	102
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? Yes.		
Was the extraction volume at this site within the approved plan limits? Yes.		
Was the entire post extraction footprint essentially within the approved plan limits? Yes.		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? Yes.		
Was the amount of vegetation disturbance essentially within the approved plan limits? Yes.		
Were the vertical and horizontal buffers essentially within the approved plan limits? Yes.		
Was the entire post extraction surface essentially free draining? Yes.		
Does it appear that all stream crossings were reasonably installed and removed? No. See Areas 2 & 3.		
Are all other extraction compliance issues within expected limits? Yes.		
Were impacts within expected limits? Yes.		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? No.		

2001 CHERT Willow Creek Bar Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Four		
Area ID: 2 & 3	Method of Extraction: Right Bank Bench Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
10,500	11,373	108
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No. The extraction was not shown on monitoring cross section 12.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No. The approved volume was slightly exceeded.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>The left edge of cross section 11 was about one foot below grade but about two feet above the low flow water surface. Much of cross section 11.8E was about one foot below grade. Much of cross section 11.9E was about 0.5 feet below grade.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No. The right bank approach was not completely removed and a depression was left where a portion of the approach was removed. The material left in the approach could have been used to help fill in the depression.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Willow Creek Bar Post Extraction Review (continued)		
Number of Extraction Areas at this Operator-Site: Four		
Area ID: 4	Method of Extraction: Left Bank Wet Trench	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
9,485	1,181	12
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>Portions of the trench were deeper than proposed.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>Yes.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>Yes.</i>		
Was the entire post extraction surface essentially free draining? <i>Yes</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>No stream crossing required.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>Yes.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Mercer Fraser McKnight Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Mercer Fraser Corp.	Trinity River	McKnight Bar
Agent for the Operator: Streamline Planning		
Plan Development		
On June 22, 2001 CHERT and others visited the McKnight bar to discuss extraction strategies. On July 29 CHERT recommended a plan to extract 10,057 cubic yards be approved.		
Number of Extraction Areas at this Operator-Site: One		
Area ID: 1	Method of Extraction: Crown Skim	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
10,057	0	0
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>Yes.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable</i>		
Are all other extraction compliance issues within expected limits? <i>No extraction.</i>		
Were impacts within expected limits? <i>No extraction..</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

ISOLATED SITES

2001 CHERT Satterlee Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Fort Seward Ranch	Eel River	Satterlee
Agent for the Operator: Streamline Planning		
Plan Development		
<i>The operator did not submit an extraction plan for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID: Drake Bar	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT PL Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Humboldt County	Van Duzen River	PL Bar
Agent for the Operator: Humboldt County		
Plan Development		
<i>The operator did not submit an extraction plan for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID: Drake Bar	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Charles Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Humboldt County	Larabee Creek	Charles Bar
Agent for the Operator: Humboldt County		
Plan Development		
<i>The operator did not submit an extraction plan for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID: Drake Bar	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Cook Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Humboldt County	North Fork Mattole	Cook Bar
Agent for the Operator: Humboldt County		
Plan Development		
<i>The operator did not submit an extraction plan for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID: Drake Bar	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		

2001 CHERT Branstetter Bar Post Extraction Review		
Operator	Waterway	Gravel Bar or Site
Humboldt County	Bear River	Branstetter Bar
Agent for the Operator: Humboldt County		
Plan Development		
<i>The operator did not submit an extraction plan for this site.</i>		
Number of Extraction Areas at this Operator-Site:		
Area ID: Drake Bar	Method of Extraction: <i>No plan submitted for this site.</i>	
Volume Compliance		
Approved Volume (cubic yards)	Harvested Volume (cubic yards)	Harvested Percent of Approved
Compliance and Effectiveness Evaluation		
Were the cross sections, aerial photographs and volume calculations properly prepared and presented? <i>No plan submitted.</i>		
Was the extraction volume at this site within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction footprint essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction bar surface elevation essentially within the approved plan limits? <i>No extraction.</i>		
Was the amount of vegetation disturbance essentially within the approved plan limits? <i>No extraction.</i>		
Were the vertical and horizontal buffers essentially within the approved plan limits? <i>No extraction.</i>		
Was the entire post extraction surface essentially free draining? <i>No extraction.</i>		
Does it appear that all stream crossings were reasonably installed and removed? <i>Not applicable.</i>		
Are all other extraction compliance issues within expected limits? <i>Yes.</i>		
Were impacts within expected limits? <i>No extraction.</i>		
If impacts were not within expected limits, how could have these impacts been avoided or reduced?		
Are there any other compliance or program issues? <i>No.</i>		