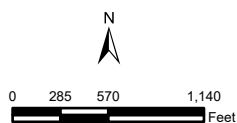




The information on this map was derived from digital databases on the Lane County regional geographic information system. Care was taken in the creation of this map, but is provided "as is". Lane County cannot accept any responsibility for errors, omissions or positional accuracy in the digital data or the underlying records. Current plan designation, zoning, etc., for specific parcels should be confirmed with the appropriate agency. There are no warranties, expressed or implied, accompanying this product. However, notification of any errors will be appreciated.



ArcGIS Web Map

Lane County, Oregon



CURRY COUNTY COMMUNITY DEVELOPMENT

94235 MOORE STREET, SUITE 113
GOLD BEACH, OREGON 97444

Becky Crockett
Planning Director

Phone (541) 247-3228
FAX (541) 247-4579

FOR OFFICE USE ONLY

Date Received: 10-8-2019

NOTICE OF APPEAL

This is a request to appeal the following decision by Curry County

☒ Land Use Decision by the Curry County Planning Commission

☐ Land Use Decision by the Planning Director

DECISION INFORMATION

Decision Date: 8-15-2019 Application File # Ad-1907

Applicants Name(s): Ronald Adams

APPELLANT INFORMATION

STANDING: I have standing because (check one)

☒ I am the applicant or agent of the applicant

☒ I participated in the decision orally at the hearing or with written testimony

☐ I represent an agency that is affected by the decision and have standing through participation in the hearing process

Appellant Name(s): Ronald Adams

Mailing Address: 26000 Myers Ck Rd Gold Beach OR 97444

Phone: 541-247-7597 E-mail: Ronaldams3@icloud.com

NOTE: An appeal of a decision will be heard by the appeals body specified in the relevant ordinance as a de novo (or entirely new) hearing. Appeals must be filed within the appeal period specified following the initial decision to be considered by the appeals body. The required fee, in currency or negotiable instrument must accompany this notice in order for it to be accepted as an appeal by the county.

received
10/8/2019

CURRY COUNTY PLANNING DEPARTMENT

APPEALING A PLANNING COMMISSION DECISION

The Curry County Planning Commission is authorized by the Board of County Commissioners to hold hearings and make recommendations in regards to zoning and subdivision applications to the county. These recommendations are considered to be final after a fifteen (15) day period unless the Board feels additional action is warranted such as in the case of an appeal.

A citizen, agency, group, etc. has the right to appeal a Planning Commission decision to the Board. This appeal must be filed within fifteen days after the Planning Commission has rendered its decision in order to be valid (from Section 2.170 of the Zoning Ordinance of Curry County, Oregon).

The appeal shall be filed on the Appeal Application Form available from the Department of Public Services required by Section 2.170 of the Zoning Ordinance of Curry County, Oregon. The signed form shall be filed with the The Dept. of Public Services along with the application fee set by the Board of Curry County Commissioners.

A public hearing before the Board will then be scheduled to enable the Board to listen to the report from the Planning Director and to further comments and evidence presented by both proponents and opponents. The Commissioners determine the scope of appeal in advance i.e, DE NOVO. The written procedure of the conduct of Board appeal hearings are available from the office of the Board of Curry County Commissioners.

Once the Board has reached a decision, either side may further appeal to the Oregon State Land Use Board of Appeals.

For further information on zoning or related matters contact the Department of Public Services or County Board of Commissioners.

Gravel Removal permit appeal AD-1907

Ronald W Adams

ronadams3@icloud.com

26000 Myers Creek Rd.

Gold Beach, Or 97444

October 14, 2019

Gravel Removal Permit Appeal AD-1907

I am appealing this denial for the following reason or reasons, The Permit was denied for the following reason, The county counsel told the Planning Director, the Planning Director told the Planning commission that this would be appealed to LUBA and LUBA would over turn the approval of the Permit, so the Planning commission had no choice except to denie the permit. So without allowing any discussion or input from the Applicant it was denied outright.

Most of my information for this application was never even given to the planning board because of the county counsels concern over LUBA over turning Planning Boards decision. Any input that I was able to inject was limit to my reminding the planning commission that I was asking for a preliminary permit. Some of the regulatory agencies had told me to tell the Planning Board what they had told me. Ask them to approve it, So that we could work together to come up with a working plan that will be the final plan that the County Planning Board will Approve. Now I am told, that wasn't the case. That I needed to present my whole plan now. Anyway I ask for a written

copy of policy and procedures and am told that their isn't any. Which would frustrate anyone to have policy and procedures unclear.

To tell the planning director and the planning commission that they had no choice, but to denie the permit, because of an a threat of an appeal is very frustrating to me. And what was even more frustrating to me, was the continuation of closing the meetings without allowing the applicant to address issues. I was not even allowed to address this surprise.

The importance of this permit being approved is so that we and I mean the community of Pistol River can work with these other agencies for fishery enhancement, it is my opinion that in order to improve the fishery on Pistol River, We are going to have to build more of the structures like the Army corps of engineers built or helped to be built along the Crook Property, on other area of the river.

The ones that have been built are working wonderfully. They cause the river to deepen and they clean the gravel so that the water can flow through the gravel, this allows the water to cool. The benefits of these structures are too many to address here, but for them to continue to work and for there longevity, eventually gravel will need to be removed. During high water they cause sediment and or gravel to wash up and out of the what is the river in normal times. If gravel is not removed in low water periods, during high water times, the structures will eventually wash out.

Before anymore of these can be built, we will need to work with the fish and wild life, Division of State Lands, Army corps of Engineers and other agencies that are involved. We have so many issues, Associated with this permit, this is a first step in re-pairing the fisheries in Pistol River. Their are many steps, approving this gravel removal

permit, will not be the final step. Until all of these other agencies weigh in, until then and only then will we be allowed to remove gravel under this permit.

This is not a request to remove gravel out of the river, but for gravel to be scalped off the gravel bars that are in the flood planes. These are new gravel bars that have been made in last couple of years from the river moving, because of the excessive sediment that is coming down the river. They have little or no vegetation on them.

When and if we are able to get to a point to where gravel can be removed, it will save the Curry County Road Dept. tens of thousands, if not hundreds of thousands of dollars, this is a fact that cannot be over looked.

Why is it that the federal government will pay to dredge the Rouge River and the Chetco River, but we have to fight to have the right to remove gravel from the Pistol River. Even the environmental organizations admitted that gravel removal would be beneficial to the river. (Testimony and objections presented in original application hearing)

At the beginning of this century the watershed group did extensive studies only to fail to take action, this cannot happen again.

Hopefully The Curry County Commissioners will not allow this to happen again under your watch.

My Goal here is to restore the Pistol River fisheries back to the way it was 70 years ago, when my Grandfather was a commercial fisherman on the Pistol River. He taught me that Pistol River is different than most rivers. In most rivers the fish are hatched out in the head waters, but in Pistol River most it is done in the lower river. This is why it is so important to restore the lower 3 miles of the river.

Restoring the Pistol River will benefit Curry county and the benefits will flow out in many directions. RD Hume wrote a book in the early 1900's, his purpose in writing the book was, that we the people would not forget the value of our fisheries. He said in his book that we had destroyed the fisheries on the east coast and in California in the latter part of the 1800's and his fear was that history would repeat itself and it appears to have happened again.

The gold in Gold Beach is not the gold on the beach, it is the fish in the rivers. The greatest value in Curry County is our fisheries, Have those values been forgotten?

I have spent over a million dollars on river properties on the lower Pistol River, it was not to start a gravel company. I am sixty-nine year old and plan on seeing the fisheries restored before I die. I can not do this alone and I do not want to do this alone. This has to be a community project, in order to make this succeed.

The consequences of approving this are all positive, of not approving this, are great. We are looking at the possibility of the community losing our bridge, serious problems with Carpentersville road. We not just looking at losing more farm land, but their is two families looking at the possibility of losing their homes. Who ever ends up blocking this permit is going to own these things and that is a reality

Thank You,


Ronald W. Adams



Sent from my iPhone

This is a picture of what
has been built along Crook's River Bottom







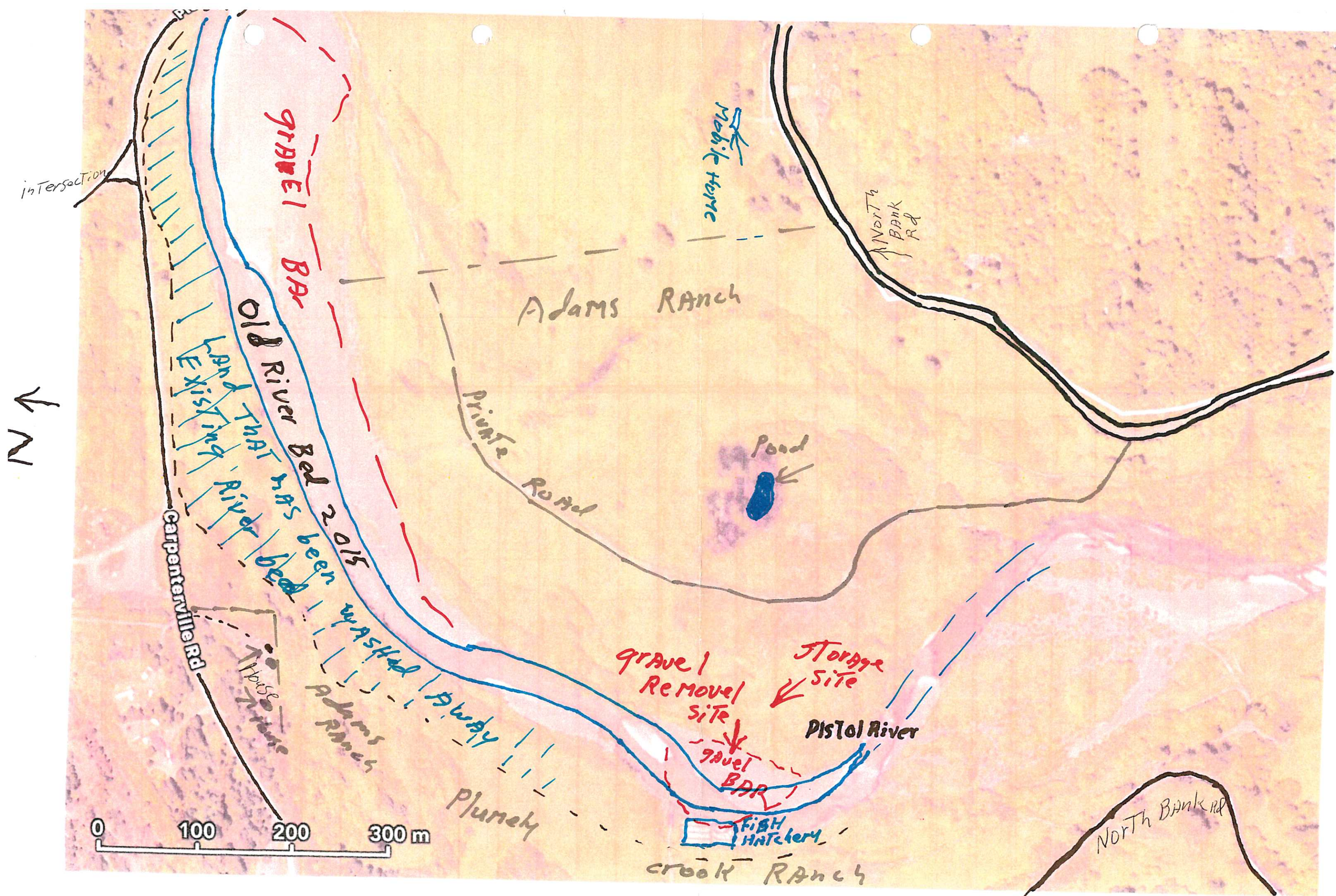












10-21-2019

Ronald Adams
26600 Myers Creek
Gold Beach OR
97544

To:

Curry County Planning Dept.

I hereby give To you an extension
of Time To complete My gravel Permit
Appeal.

Ronald Adams

**Board of Commissioners Special De Novo Public Hearing for A-1901
An Appeal of Planning Commission Action on Application AD-1907
Pursuant to ORS 197.763(2)(a) and Curry County Zoning Ordinance 2.070(1).**

Board of Commissioners Hearing: The Board of Commissioners will hold a special de novo public hearing to hear an appeal of Curry County Planning Commission's decision on the Adams Pistol River Gravel Extraction land use proposal described further in this notice. The special de novo public hearing will be held at 10:15 AM on Wednesday, November 20, 2019 in the Board of Commissioners chambers on the upper level of the County Courthouse Annex in Gold Beach located at 94235 Moore Street. The de novo public hearing is being provided to solicit public commentary on the proposed gravel extraction project appeal on the Pistol River described further in this Notice.

Applicant/Property Owner: Ronald Adams

Property Location: The proposed gravel extraction project is located on Assessor's Map 38-14-00, tax lot 4900; and Map 38-14-19D, tax lot 200. It is above the Pistol River Bridge on Pistol River Loop Road, approximately .20 miles east from its intersection with US Hwy 101. Property is outside of the Gold Beach Urban Growth Boundary (UGB).

Proposal: Application AD-1907 is a request for conditional use approval for the mining and processing of approximately 10,000 cubic yards of aggregate on the Pistol River gravel bar. The method of aggregate removal proposed is by a process call "scalping". Typically this involves scrapping aggregate from the exposed gravel bar during low flow water conditions. The area for the proposed gravel operation is a County adopted Goal 5 Resource and has a long history of aggregate removal. Further, the site is within an area of estuarine influence and includes fish species protected under the Endangered Species Act (ESA).

Background: On August 15, 2019 the Curry County Planning Commission denied the proposal. A public hearing was held before the Planning Commission as a matter duly set upon the agenda of a regular meeting on June 20, 2019, after giving public notice to affected property owners and publication in the local newspapers as set forth in Section 2.070 of the Curry County Zoning Ordinance (CCZO). A decision was made by the Planning Commission on June 29, 2019 to close the public hearing and leave the record open for fourteen (14) days. During that time, the applicant submitted new evidence into the record. The Planning Commission convened on July 25, 2019 to deliberate on the new evidence and made a decision to re-open the record for an additional seven (7) days to provide an opportunity for interested persons to respond to the new evidence. The Planning Commission convened again on August 15, 2019 and denied the request based upon the evidence in the record.

Applicable Criteria:

Curry County Zoning Ordinance section 2.170(7c and 7d): *Every Notice of Appeal shall be on a form supplied by the Director and contain the following information:*

(c) A statement explaining the specific issues being raised on the appeal(s). The applicant has identified the specific appeal issue as follows: "The permit was denied for the following reason: The County Counsel told the Planning Director, the Planning Director told the Planning Commission that this would be appealed to LUBA and LUBA would overturn the approval of the Permit, so the Planning Commission had no choice except to deny the Permit. So without any discussion or input from the Applicant it was denied outright."

(d) A statement demonstrating that the appeal issues were raised during the public comment period. The applicant has stated the following in regards to the issue being raised during the public comment period: "Most of my information for this application was never even given to the planning board because of the County Counsel's concern over LUBA over turning the Planning Board's decision"; and "Any input that I was able to inject was limit to my reminding the Planning Commission that I was asking for a preliminary permit".

Required Statutory Notice: ORS 197.763 (3)(e) states that failure to raise an issue either in person or by letter or failure to provide statements or evidence sufficient to allow the decision maker an opportunity to respond to the issue precludes appeal to a higher judicial review based on that issue. Failure to provide sufficient specificity to afford the decision maker an opportunity to respond to an issue that is raised precludes appeal to LUBA based on that issue.

Documents and Staff report:

See the project application, the Planning Commission staff report and related documents at: co.curry.or.us/government/planning-commission. The applicant's appeal application and the staff report prepared for the Board of Commissioners special de novo public hearing will be available by November 6, 2019 at co.curry.or.us/government/board-of-commissioners.

Your comments: Testimony, arguments, and evidence must be directed toward the criteria described in the Applicable Criteria section of this notice. You may submit written testimony prior to or at the hearing. Please include Appeal number A-1901 on your written testimony. Testimony may be submitted via email, fax, or by USPS mail. You may contact Becky Crockett, Planning Director to submit your comments; please put A-1901 in the subject line. Comments may be also be mailed to the Curry County Planning Department, Curry County Annex, 94235 Moore St, Suite 113 Gold Beach, OR 97444, Attention: Becky Crockett. Email: crockettb@co.curry.or.us. For your written comments to be included in the record prior to the hearing, they must be received by 3 PM on Tuesday, November 19th, 2019. After that time your comments can be submitted but will be presented for the record at the November 20, 2019 Board of Commissioners special de novo public hearing. Should the action of the Board of Commissioners be

appealed, the appeal shall be limited to the application materials, evidence and other documentation, and specific issues raised in the comments by interested parties leading up to the Board's action.



CURRY COUNTY COMMUNITY DEVELOPMENT
94235 MOORE STREET, SUITE 113
GOLD BEACH, OREGON 97444

RECEIVED
5/13/2017

Becky Crockett
Planning Director

Phone (541) 247-3228
FAX (541) 247-4579

File # AD-1907 Fee \$ 1,840 Receipt # _____ Accepted by _____

LAND USE DECISION APPLICATION FORM

Application Type (Check One)

☐ Comp Plan/Zone Change ☒ Conditional Use ☐ Variance ☐ Partition ☐ Subdivision ☐ Development Permit

Application Date: _____ Hearing / Decision Date: _____

APPLICANT: Please complete all parts of this form. The attached application checklist will be marked by staff to reflect the information and supporting items required for this request. Please return this prepared checklist, the completed application form and required fee at the time of submission. Please note that your application cannot be reviewed or processed until all the required items have been provided.

1. **PROPERTY OWNER OF RECORD**

Name Ronald Adams
Mailing Address: 26000 Myers ck Road
City, State, ZIP: Gold Beach OR 97444
Telephone #: 541 247 7597 E-Mail RonAdams3@icloud.com

2. **APPLICANT**

Name Ronald Adams
Mailing Address: 26000 Myers ck Road
City, State, ZIP: Gold Beach or 97444
Telephone #: 541 247 7597 E-Mail RonAdams3@icloud.com

3. **AGENT (If Any)**

Name: _____
Mailing Address: _____
City, State, ZIP: _____
Telephone # _____ E-Mail _____

4. **BASIC PROPOSAL** (Briefly describe your proposed land use)

gravel removal for sale

5. **PROPERTY INFORMATION**

Assessor Map # 3814-00/3814-19D Tax Lot (s) 4900 & 200
Zoning: Fg Total Acreage 116

200 - 20.30 ACRES
4900 - 96.87 ACRES

6. **PROPERTY LOCATION**

Address (if property has a situs address) _____

Description of how to locate the property LOCATED ABOVE THE PISTOL RIVER
BRIDGE ON PISTOL RIVER LOOP RD

7. **EXISTING LAND USE** (briefly describe the present land use of the property)

☐ Vacant ☐ Developed; Describe existing development

PRESENTLY BEING USED FOR GRAZING CATTLE. IN THE
THE SITE WAS USED AS A SOURCE & LOCATION FOR GRAVEL TO
BUILD THE 161 HIGHWAY & LATER AS A SOURCE FOR THE
COUNTY ROAD DEPT.

8. **SURROUNDING LAND USES** (Briefly describe the land uses on adjacent property)

CATTLE OPERATIONS & A FEW RURAL HOMES & STATE
HIGHWAY GRAVEL STOCK YARD

9. **SERVICE AND FACILITIES AVAILABLE TO THE PROPERTY**

Please indicate what services and facilities are available to the property. If on-site sewage disposal and/or water source is proposed, a copy of the approved site evaluation or septic system permit and a copy of any water rights or well construction permit must be submitted with this application.

Water Source RIVER & SEVERAL PONDS

Sewage Disposal _____

Electrical Power ✓

Telephone Service ✓

Fire Department/District ✓

School District ✓

10. **ROAD INFORMATION**

Nearest Public Road NORTH BANK PISTOL RIVER & CARPENTERVILLE ROADS

Private Roads Serving the Property 2

Road Condition EXCELLENT

Legal Status PRIVATE OWNERSHIP

Ownership: I own the road ☒ Easement on others property ☐ Joint Owner ☐

Please submit record of ownership (i.e. deeds, easement, plat dedication, etc)

Proposed New Roads/Driveways (Briefly describe any new road construction related to this application)

ANY NEW ROADWAYS WOULD BE SHORT & TEMPORARY

11. **PHYSICAL DESCRIPTION OF THE SUBJECT PROPERTY**

Topography (Briefly describe the general slope and terrain of the property)

~~flat~~ Pretty much level with 2 ponds
& a area that is a dry creek except in winter

Vegetation (Briefly describe the vegetation on the property)

mostly grass land on gravel & few willows
most of Area where gravel is to be mined is bare

12. **FINDINGS OF FACT**

Oregon Statute and the zoning ordinance requires that land use decisions be supported by factual findings. The burden of proof is on the proponent therefore it is required that the application provide findings to support the request in this application. The standards and criteria that are relevant to this application will be provided by the staff and are considered to be a part of this application form. Please read the standards and criteria carefully and provide factual responses and evidence to address each standard. These findings must be sufficiently specific to allow the decision maker to determine whether your request meets the relevant standard. Please attach your written findings and supporting evidence to this application.

FAILURE TO PROVIDE THE REQUIRED FINDINGS WILL PREVENT THE APPLICATION FROM BEING PROCESSED AND IT WILL BE RETURNED AS BEING INCOMPLETE.

13. **APPLICANT'S SIGNATURE AND STATEMENT OF UNDERSTANDING**

(Please read the statement below *before* signing the signature blank)

I (We) Ronald Adams ;

_____ ; have filed this application for

With the Curry County Department of Community Development-Planning Division to be reviewed and processed according to State of Oregon and county ordinance requirements. My (our) signature (s) below affirms that I (we) have discussed the application with the staff, and that I (we) acknowledge the following disclosures:

- (a) I (we are stating all information and documentation submitted with this application is true and correct to the best of my (our) knowledge.
- (b) I (we) understand that if false information and documentation has been submitted and the decision is based on that evidence, the decision may be nullified and the county may seek all legal means to have the action reversed.
- (c) I (We) understand any representations, conclusions or opinions expressed by the staff in pre-application review of this request do not constitute final authority or approval, and I (we) am (are) not entitled to rely on such expressions in lieu of formal approval of my (our) request.
- (d) I (We) understand that I (we) may ask questions and receive input from staff, but acknowledge that I (we) am (are) ultimately responsible for all information or documentation submitted with

this application. I (We) further understand staff cannot legally bind the county to any fact or circumstance which conflicts with State of Oregon or local ordinance, and in event a conflict occurs, the statement or agreement is null and void.

- (e) I (We) understand that I (we) have the burden of proving that this request meets statutory and Ordinance requirements, and I (we) must address all of the criteria that may apply to the decision being made. The criteria for approving or denying this request have been provided to me (us) as a part of the application form.
- (f) I (We) understand the staff is entitled to request additional information or documentation any time after the submission of this application if it is determined as such information is needed for review and approval.
- (g) I (We) understand this application will be reviewed by the Oregon Department of Land Conservation & Development (DLCD) and possibly other state agencies as part of the statewide land use coordination process. I (We) understand that agencies that participate in the review process have the legal right to appeal the approval of the request.
- (h) I (We) understand that it is my (our) responsibility, and not the county's, to respond to any appeal and to prepare the legal defense of the county's approval of my (our) request. I (We) further realize it is not the county's function to argue the case at any appeal hearing.
- (i) I (We) understand that I (we) am (are) entitled to have a lawyer or land use consultant represent me (us) regarding my application and to appear with me (or for me) at any appointment, conference or hearing relating to it. In light of the complexity and technical nature of most land use decisions, I (we) understand that it may be in my best interests to seek professional assistance in preparation of this application.
- (j) The undersigned are the owner (s) of record for the property described as:

Assessor Map(s) 3814-06 & 3814-19D
and Tax Lot(s) 4900 & 200
in the records of Curry County.

This application MUST BE SIGNED BY ALL PROPERTY OWNERS OF RECORD, or you must submit a notarized document signed by each owner of record who has not signed the application form, stating that the owner has authorized this application.

- (1) Signature Ronald W Adams
Print Name Ronald W Adams
- (2) Signature _____
Print Name _____
- (3) Signature _____
Print Name _____
- (4) Signature _____
Print Name _____

ADDITIONAL NOTES:

All fees must be paid at the time your application is filed. Staff will examine the application when filed to check for completeness and will not accept it if required items are missing. A final completeness check will be made prior to doing public notice regarding the pending decision. If it is determined to be incomplete or the findings are insufficient you will be notified and you must provide the required information in a timely manner to avoid denial of the request.

ORS 215.427 required the county to take final action on a land use application (except for plan/zone changes) including all local appeals within 120 days if inside an Urban Growth Boundary (UGB) or 150 days if outside a UGB once the application is deemed complete.

PLOT PLANS:

All applications require that a plot plan of the subject property be included with the application form. The plot plan is an understandable map of your property and its relationship to adjacent properties. The plot plan must show certain essential information that is needed for the staff and the decision makers in the evaluation of your request. The plot plan is also incorporated into the public notice sent to adjacent property owners and affected agencies. The plot plan should be prepared on a single sheet of paper (preferable 8 ½ x 11") so copies can easily be reproduced for review.

An example plot plan is attached to this form to give you an idea of what information should be included on your plan and how it should be drawn. The plot plan does not have to be prepared by a surveyor or engineer, and can generally be prepared by the applicant from the Assessor map of the property. The dimensional information included on the plot plan must be accurate and drawn to scale so that the plot plan reasonably represents the subject property and any development therein. If your application is for a land partition or subdivision Oregon Statute required that plat maps must be prepared by a surveyor licensed by the state.

APPLICATION CHECKLIST

Please bring this form with your completed application

SPECIFIC TYPE OF APPLICATION: gravel removal

If the item is checked or circled on the left you are required to provide that information.

All applications require the following information:

- ☐ Completed application form and fee
- ☐ Current deed of the subject parcel(s)
- ☐ Vicinity map and detailed plot plan drawn to scale (see example) if your plot plan is not adequate it will delay processing of your application
- ☐ Service letter from agencies
Please provide letters from the following agencies regarding your application:
 - ☐ Fire District
 - ☐ Electric Service
 - ☐ OTHER: _____
 - ☐ Water District (if located within a district)
 - ☐ Sewer District (if located within a district)
- ☐ Proposed source of water if not in district: on site
- ☐ Sanitation coordination form (if not in a sewer district)
- ☐ Erosion prevention and sediment control plan
- ☐ Storm and surface water management plan
- ☐ Documentation of proposed or existing access to parcel (county, state, federal or private road, or easement)

☒ **MOST IMPORTANT: FINDINGS.** Depending on your application you will be required to provide specific facts and findings to support your application. Please provide the following: _____

FOR STRUCTURES IN NATURAL HAZARD AREAS:

- ☐ Geohazard report prepared by a licensed geologist
- ☐ Elevation certificate and/or other flood ordinance requirements

OTHER REQUIRED ITEMS: _____

FOR PARTITIONS AND SUBDIVISIONS:

You must provide a plat or map of survey prepared by a licensed surveyor with your application. Partitions and subdivisions require an erosion prevention and sediment control plan as well as a storm and surface water management plan.

Property owner(s) name(s)	North arrow	Assessor Map and tax lot number
Exterior property lines	Existing easements and their purpose	Shorelines, water features, streams, rivers, drainages
Existing structures	Proposed structures	Property setback lines (check with planning if you are unsure)
Driveways or accessways	Septic system and drainfields	Well or other domestic water source
Streets, roads, highways adjacent to property	Physical address if one has been assigned	



NOTICE

CHARGES FOR PRIVATE PROFESSIONAL SERVICES

The Curry County Planning Division staff does not have technical expertise in some areas that are critical to the analysis of applications. When necessary, in the judgment of the Planning Director, Curry County Planning Division will contract with such specialists to assure that applications receive the proper review. These services include engineers, geologists, and hydrologists among others.

The County will be judicious in its decision to seek outside services. However, the cost of such services is the responsibility of the applicant. In such cases, the County will inform the applicant that the services of an appropriate consulting professional will be secured. The County will pay the invoices presented by the consultants and then invoice the applicant in turn for the cost incurred, plus 10% Administrative Fee (Curry County Resolution and Order No. 12372).

Failure of an applicant to honor the County's invoice within the 30 day period will delay the issuance of the permit or other entitlement which is being sought by the application.

For further information regarding this policy, you may contact Dave Pratt, Curry County Planning Director at 541-247-3304.

March 5, 2007

PERSONAL REPRESENTATIVE'S DEED

THIS INDENTURE Made this 24 day of August, 2016, by and between JERRY L. WALKER the duly appointed, qualified and acting personal representative of the estate of MILDRED WALKER, also known as MILDRED EDNA WALKER, deceased, hereinafter called the first party, and RONALD W. ADAMS, as an estate in fee simple, hereinafter called the second party; WITNESSETH:

For value received and the consideration hereinafter stated, the receipt whereof hereby is acknowledged, the first party has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto the said second party and second party's heirs, successors-in-interest and assigns all the estate, right and interest of the said deceased at the time of decedent's death, and all the right, title and interest that the said estate of said deceased by operation of the law or otherwise may have thereafter acquired in that certain real property situate in the County of Curry, State of Oregon, described as follows, to-wit:

REAL PROPERTY AS DESCRIBED IN EXHIBIT "A" ATTACHED

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 197.352. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930 AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 197.352.

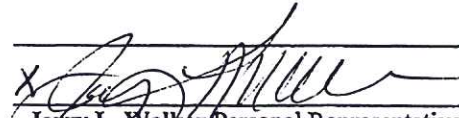
TO HAVE AND TO HOLD the same unto the said second party, and second party's heirs, successors-in-interest and assigns forever.

The true and actual consideration paid for this transfer, stated in terms of dollars, is \$500,000.00 "paid by a facilitator pursuant to an IRC 1031 Tax Deferred Exchange".

IN WITNESS WHEREOF, the said first party has executed this instrument; if first party is a corporation, it has caused its corporate name to be signed hereto and its corporate seal affixed by its officers duly authorized thereunto by order of its Board of Directors.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

NOTE: The sentence between the symbols *, if not applicable should be deleted. See ORS 93.030.



Jerry L. Walker Personal Representative
of the Estate of Mildred Walker, aka Mildred
Edna Walker, Deceased.

Jerry L. Walker, Personal Representative
3461 Blue Mountain Drive
Fairfield, CA 94533
Grantor's Name and Address
Ronald W. Adams
26000 Myers Creek Road
Gold Beach, OR 97444
Grantee's Name and Address
After recording return to:
Curry County Title, Inc.
P.O. Box 672
Gold Beach, OR 97444
Name, Address, Zip
Until a change is requested all tax statements shall be sent to the following address:
Ronald W. Adams
26000 Myers Creek Road
Gold Beach, OR 97444

CURRY COUNTY, OREGON 2016-03401
LAND
Cnt=1 Pgs=3 RECC 08/31/2016 03:53 PM
\$67.00



00058464201600034010030030

I Renee' Kolen, County Clerk, certify that the within document was received and duly recorded in the official records of Curry County.

Renee' Kolen - Curry County Clerk



RETURN TO: CURRY CO. TITLE
P.O. BOX 672
GOLD BEACH, OR 97444
822286

STATE OF CALIFORNIA

County of X Solano

)
) ss.
)

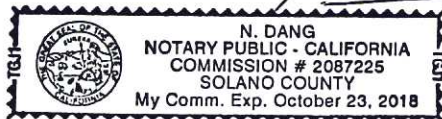
This instrument was acknowledged before me on this 24 day of August, 2016, by JERRY L. WALKER as Personal Representative of the ESTATE of MILDRED WALKER also known as MILDRED EDNA WALKER, deceased..

x
Notary Public for California

My commission expires: 10/23/2018

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California, County of Solano)ss.
On 08/24/16 before me, N. Dang Notary Public,
personally appeared Jerry L. Walker
who proved to me on the basis of satisfactory evidence to be the person(s) whose
name(s) is/are subscribed to the within instrument and acknowledged to me that
he/she/they executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of
which the person(s) acted, executed the instrument. I certify under PENALTY OF
PERJURY under the laws of the State of California that the foregoing paragraph is true
and correct. WITNESS my hand and official seal.



Escrow No.: 82228G

EXHIBIT "A"

LEGAL DESCRIPTION

Parcel One (1), WALKER PARTITION PLAT NO. 2003-12, recorded June 30, 2003 Inst.#2003-4683, County of Curry, and State of Oregon.

EXCEPT that portion conveyed by Inst. #2006-1018 as follows:

A parcel of land lying within the Northwest Quarter (NW¼) of Section Twenty-nine (29), Township Thirty-eight (38) South, Range Fourteen (14) West, Willamette Meridian, Curry County, Oregon, more particularly described as follows:

Commencing at the Northwest Corner of Parcel Two (2) as shown on Curry County Partition Plat No. 2003-12 said point being the Southerly Corner of that certain parcel of land described in Curry County Inst. #97-5190;

thence along the Southerly line of said parcel North 68° 57' 47" East 281.40 feet to a 5/8-inch iron rod with plastic cap marked "PLS 1868" at the point of beginning;

thence continuing along said Southerly line, North 29° 47' 53" East, 119.93 feet to a 1/2-inch iron pipe;

thence leaving said line, North 39° 53' 07" East 880 feet, more or less, to the centerline of the Pistol River;

thence along said centerline, South 79° 58' 55" East 90.84 feet;

thence continuing along said centerline, South 60° 06' 14" East 160.88 feet;

thence leaving said centerline, South 00° 39' 50" West 670 feet, more or less, to a 5/8-inch iron rod with plastic cap marked "PLS 1868";

thence South 87° 16' 21" West 858.43 feet to the point of beginning.

9

16-

38S 14W 07

SEE MAP

38S 14W 18

OCEAN

SEE MAP

38S 14W 19

PACIFIC

SEE MAP

38S 14W 30

CURRY COUNTY TITLE
INSURANCE COMPANY
OF
CURRY COUNTY

38S 14W 29

SEE MAP
38S 14W 21C

28

CS 38-151

16-1

16

P.P.
2005-25

21

4600

3301

3201
40.00

31

5101
40.00 AC

5100
120.00 AC.

510
2723.4

6300

3036
94.57 AC.

3020
60.13 AC.

3020A1

PP PAR 1

3035
180.40 AC.

CS 38-137

CS 38-161

CS 38-135

2004-30

PAR 2

3104
60.22 AC.

POR PAR 2

3102
376.59 AC.

CS 38-136

3200

3102

4700

POR PAR 3

4602
63.93 AC.

P3

4603
172.52 AC.

P1 CS 38-162 P2

1

33.57

4603

P1 15000

4600

6400

17.56

34.53

6400

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THIS SEARCH IS PROVIDED, WITHOUT CHARGE, FOR
YOUR INFORMATION. IT IS NOT INTENDED TO SHOW ALL
MATTERS RELATED TO THE PROPERTY, INCLUDING BUT
NOT LIMITED TO AREA, DIMENSIONS, EASEMENTS,
ENCROACHMENTS OR LOCATIONS OF SURVEYED LOTS.
IT IS NOT A PART OF, NOR DOES IT MODIFY, THE COVERAGE
OR POLICY TO WHICH IT IS ATTACHED. THE COMPANY
ASSUMES NO LIABILITY FOR ANY MATTER RELATED TO
THIS SEARCH, UNLESS SUCH COVERAGE IS SPECIFICALLY
PROVIDED. THE LIMITED RISK OF THE POLICY
REFERENCE SHOULD BE MADE TO THE POLICY SUMMARY
FOR FURTHER INFORMATION.

Escrow No.: 82228G

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thence continuing along said centerline, South 60° 06' 14" East 160.88 feet;

thence leaving said centerline, South 00° 39' 50" West 670 feet, more or less, to a 5/8-
inch iron rod with plastic cap marked "PLS 1868";

thence South 87° 16' 21" West 858.43 feet to the point of beginning.

This is complying with every county zoning ordinance. II 10 Mining, quarrying or other extractive use

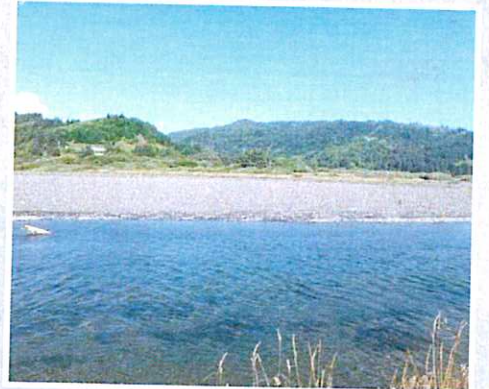
5-18-2019

Operation will be almost entirely on bare gravel, dust will be minimal but if it becomes an issue we will water area to keep dust down. noise should not be an issue, reason being is there is not any buildings of any kind within 500 feet.

The impact of this operation should be mostly positive. The Waterway of this area of pistol River has been in disarray for many years. The river has eroded hundreds of feet of River Bottom away on the south side of the river causing it to Fan out, many times it's natural width, that's causing water temperatures to rise, which kills fish, algae growth which lowers oxygen levels in the water and removes safe fish habitat. We will work with fish and wildlife to make improvements whenever possible. we Can't solve all problems but with the help of odf&w everything I plan on doing will be a win-win.

Again anything we do will be an improvement over the way it is now . I own all the land where this operation will operate and most of the land within 500 feet of it. on the East side of my property lies the state highway yard where the state stores rock material. the south side is Larry and Rosanna Ismert, there residents is approximately 500 feet east of my property and crook Ranch. all residents at least 500 feet from operations. I own all the land where this operation will operate and all the land within 500 feet of it. At present many small trees are hung up on the bridge supports and up-and-down the area on the river. The state tried to do repair of the river bank to protect Carpenterville Road. most all of that has washed away. In the near future if something is not done, The Carpenterville road will be washed away and maybe even the bridge. we do not plan on trying to fix everything but with the help of odf&w I believe that this is the place to start.

Rehabilitation Will be to comply with ODf&W and doing what is necessary to make it better than when we started.



10. **Mining, quarrying, or other extractive activity.**

- a) Plans and specifications submitted to the Commission for approval must contain sufficient information to allow the Commission to review and set siting standards related to the following standards:
 - (1) Impact of the proposed use on surrounding land uses in terms of Department of Environmental Quality standards for noise, dust, or other environmental factors;
 - (2) The impact of the proposed use on water quality, water flow, or fish habitat on affected rivers or streams;
 - (3) The impact of the proposed use on overall land stability, vegetation, wildlife habitat and land or soil erosion;
 - (4) The adequacy of protection for people residing or working in the area from the proposed mining activity through fencing of the site;
 - (5) The rehabilitation of the land upon termination of the mining activity. The proposed rehabilitation must at least meet the requirements of state surface mining or gravel removal permits.
 - (6) If the proposed extractive activity involves the removal of rock, gravel, or sediment from a river or stream, the proposal shall be reviewed by the Oregon Department of Fish and Wildlife and it may provide a written statement to the county regarding the possible impact on fish habitat associated with the affected river or stream.
 - (7) The County will define an area around the specific removal site which includes all lands within 250 feet of the site, based on the site map for a state mining or gravel permit. The applicant shall provide findings which identify the existing uses on those lands included within this area. The Commission shall evaluate the applicant's findings with regard to the potentially conflicting uses identified in the area based on the factors below:
 - i) If the mining activity can be sited on an alternate site; and
 - ii) where conflicting uses are identified the economic, social environmental and energy consequences of the conflicting uses shall be determined and methods developed to resolve the conflict.
 - (8) A rock crusher, washer or sorter shall not be located closer than 500 feet to any residential or commercial use. Surface mining equipment and necessary access roads shall be constructed, maintained, and operated in such a manner as to eliminate, as far as is practicable, noise, vibration, or dust which are injurious or substantially annoying to persons living in the

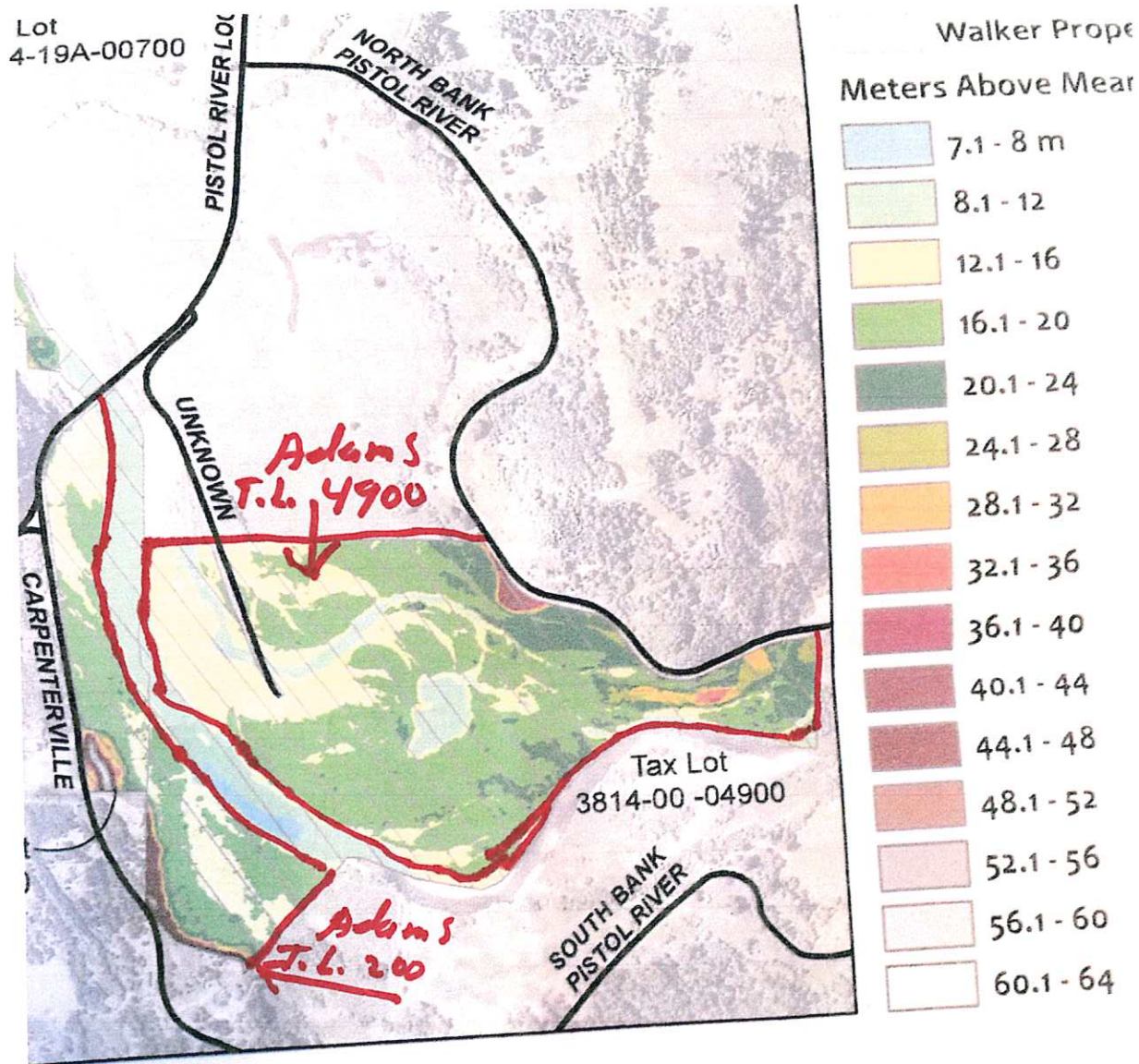
vicinity.

- (9) No uses are permitted relating to offshore oil, gas or marine mineral exploration or development.

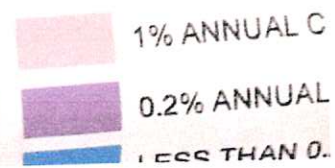
Township 38
Range 14
TAX LOT 4900 & 200

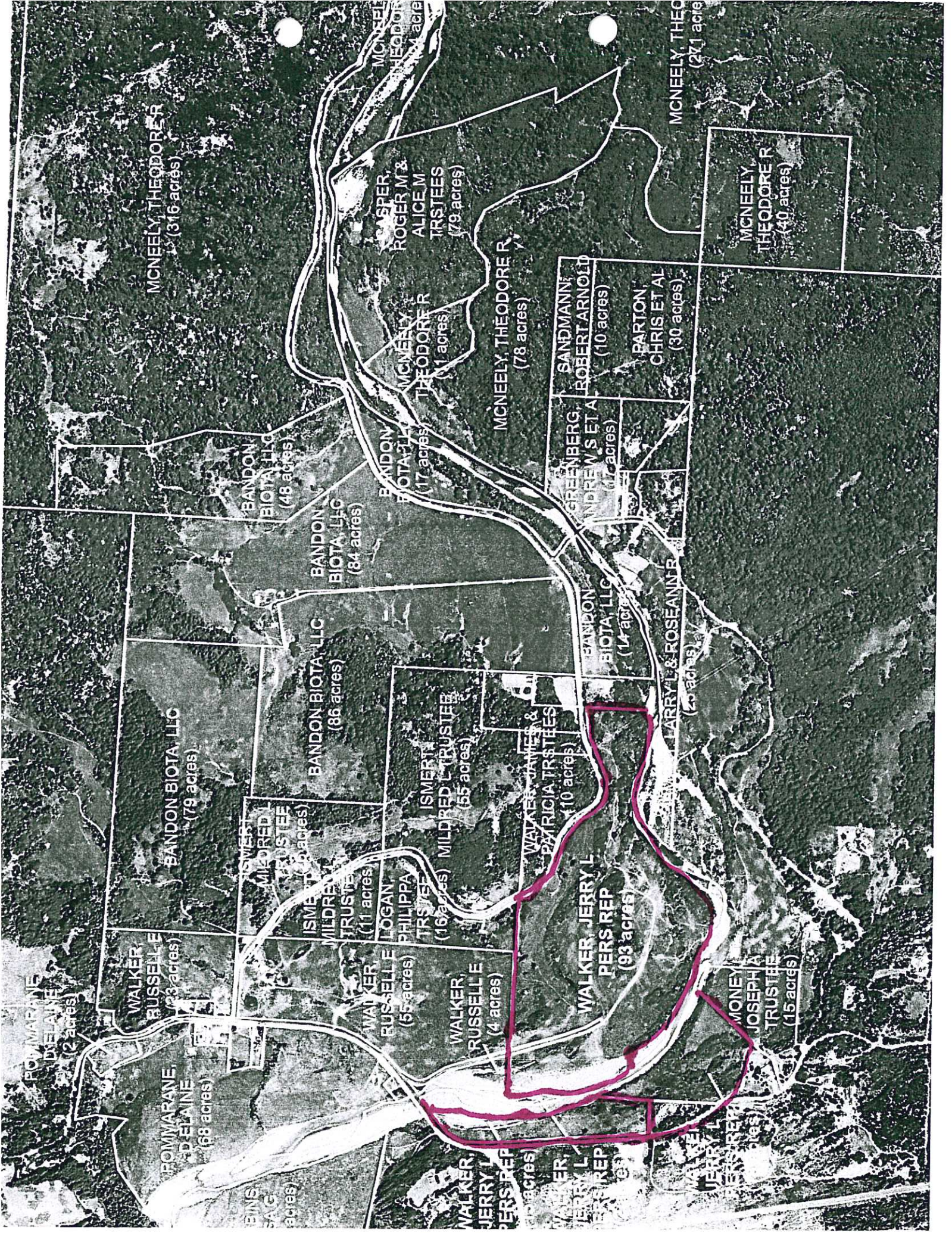
From: Ronald Adams ronadams3@icloud.com
Subject:
Date: May 18, 2019 at 5:10 PM
To: ronadams3@icloud.com

↑
N



Flood Zones





MCNEELY, THEODORE R.
(316 acres)

CASPER, ROGER M &
ALICEM TRS
(79 acres)

MCNEELY, THEODORE R.
(11 acres)

MCNEELY, THEODORE R.
(78 acres)

MCNEELY, THEODORE R.
(40 acres)

MCNEELY, THEO
(27.1 acre)

BANDON BIOTA, LLC
(84 acres)

BANDON BIOTA, LLC
(48 acres)

BANDON BIOTA, LLC
(79 acres)

BANDON BIOTA, LLC
(86 acres)

ISMERT, MILDRED TRUSTEE
(6 acres)

ISMERT, MILDRED TRUSTEE
(11 acres)

LOGAN, PHILIPPA TRS
(55 acres)

WALKER, RUSSELLE
(4 acres)

WALKER, RUSSELLE
(55 acres)

ISMERT, MILDRED TRUSTEE
(55 acres)

WALKER, JAMES & PATRICIA TRS
(110 acres)

WALKER, JERRY L. PERS. REP
(93 acres)

MONEY, JOSEPH A. TRUSTEE
(15 acres)

LARRY L & ROSEANNE
(20 acres)

SANDMANN, ROBERT ARNOLD
(10 acres)

PARTON, CHRIS ET AL
(30 acres)

GREENBERG, ANDREW S ET AL
(17 acres)

BANDON BIOTA, LLC
(14 acres)

POMMARANE, D'ELAINE
(2 acres)

POMMARANE, D'ELAINE
(68 acres)

WALKER, RUSSELLE
(23 acres)

WALKER, JERRY L. PERS. REP
(93 acres)

WALKER, JERRY L. PERS. REP
(93 acres)

WALKER, JERRY L. PERS. REP
(93 acres)

May 28, 2019

Curry County Community Development Department PLANNING COMMISSION STAFF REPORT

Application AD-1907 is a request for conditional use approval for the mining and processing of aggregate along the Pistol River in the Forestry Grazing (FG) Zoning District.

1. Background Information

Owner:	Ronald Adams 26000 Myers Creek Road Gold Beach, OR 97444
Applicant:	Ronald Adams 26000 Myers Creek Road Gold Beach, OR 97444
Land Use Review:	Administrative Conditional Use Review Referred to the Planning Commission by Planning Director.
Property Description:	Assessor's Map 38-14-00, Tax Lot 4900; Assessor's Map 38-14-19D TL 200
Location	Located above the Pistol River Bridge on Pistol River Loop Road, approximately .20 miles east from its intersection with US Hwy 101 and outside the Gold Beach Urban Growth Boundary (UGB).
Existing Development:	None. Property is river/gravel resource with cattle grazing on adjacent lands. Gravel mining has occurred in the area previously.
Proposed Development:	Proposed gravel extraction primarily on the gravel bar which may include some processing.
Zone:	Forestry Grazing (FG) Zoning District

II. Applicable Review Criteria

To approve this application, the Planning Commission must determine that it is in conformance with the following sections of the Curry County Zoning Ordinance (CCZO):

Curry County Zoning Ordinance (CCZO)

Section 3.050	Forestry Grazing
Section 3.052	Conditional Uses Subject to Administrative Approval by the Director
	24. Land Based Mining (1, 10, 17)
Section 2.090	Procedure for Conditional and Permitted Uses
Section 7.010	Authorization to Grant or Deny Conditional Uses
Section 7.040	Standards Governing Conditional Uses
	1. Conditional Uses Generally
	10. Mining, quarrying, or other extractive activity
	17. Uses on Resource Land
Section 7.050	Time Limit on a Permit for Conditional Uses

III. Findings

Section 3.050 Forestry Grazing (FG) – *The Forestry Grazing Zone is applied to resource areas of the county where the primary land use is commercial forestry with some intermixed agricultural uses for livestock uses.*

Finding: This section of the CCZO states the purpose of the Forestry Grazing zoning district. The primary uses established on the property are a mix of forestry and cattle grazing which are consistent with the purpose of the FG zoning district. Land-based mining and processing of aggregate and mineral resources are allowed as a conditional use in the Forestry Grazing Zone and have historically been established as a compatible use consistent with forestry and grazing activities on this as well as similar properties along the Pistol River. This standard of the CCZO is met.

Section 3.052 Conditional Uses Subject to Administrative Approval by the Director

24. Land-based mining and processing of oil, gas, or other subsurface resources, as defined in ORS Chapter 520 and not otherwise permitted in 3.041 (10), and the mining and processing of aggregate and mineral resources as defined under ORS Chapter 517 but not including support or processing facilities for offshore oil, gas or marine mineral activities (1,10,17).

Finding: The mining of aggregate and mineral resources, as defined under ORS Chapter 517, is allowed in the Forestry Grazing zone provided that a prospective applicant submits a land use application and the County approves the proposed use based upon relevant standards for review. ORS Chapter 517 reads as follows:

ORS 517.750(15)(a): Subsurface mining means “all or any part of the process of mining minerals by the removal of the overburden and the extraction of natural mineral deposits thereby exposed by any method by which more than 5,000 cubic yards of mineral are extracted or by which at least one acre of land is affected within a period of 12 consecutive calendar months..”

The applicant is proposing to develop an aggregate and mineral mining and processing site on a portion of the subject property on more than one acre of land. The estimated quantity of material to be extracted from the river gravel bar is approximately 10,000 cubic yards. The proposed aggregate project meets the definition of mining as stated above and the applicant has submitted an application for a conditional use permit addressing the criteria set forth as required in the CCZO.

Section 2.090 – Procedure for Conditional and Permitted Use Permits – *After accepting a completed application for Administrative Action pursuant to Section 2.060, the Director shall act on or cause a hearing to be held on the application pursuant to Section 2.062*

Finding: The proposed request for an aggregate mining activity in the FG zone is an administrative decision. However, it is being referred to the Planning Commission for a public hearing.

Section 7.010 Authorization to Grant or Deny Conditional Uses – *In permitting a conditional or permitted use the County may impose conditions in addition to the provisions set for uses within each zone in order to protect the best interests of the surrounding property, the neighborhood, or the County as a whole.*

Finding: After review of this application, information provided by the applicant and interested parties during the hearings process, the Planning Commission may impose additional conditions as appropriate to insure that the proposed use fits the interests of the County.

Section 7.040 Standards Governing Conditional Uses – *In addition to the standards of the zone in which the conditional use is located and the other standards in this ordinance, conditional uses must meet the following standards:*

Conditional Uses Generally

- a. *The County may require property line set-backs or building height restrictions other than those specified in Article IV in order to render the proposed conditional use compatible with surrounding land use.*

Finding: Since there are no buildings proposed, there is no need for any property line setbacks or height restrictions in order for the proposed use to be compatible with the surrounding land uses.

- b. *The County may require access to the property, off-street parking, additional lot area, or buffering requirements other than those specified in Article IV in order to render the proposed conditional use compatible with surrounding land uses.*

Finding: Access to the gravel bar is proposed to be a private access on property owned by the applicant. There is no need for public access, off-street parking or additional lot area or buffering requirements for the proposed use.

- c. *The County may require that the development be constructed to standards more restrictive than the Uniform Building Code or the general codes in order to comply with the specific standards established and conditions imposed in granting the conditional use permit for the proposed use.*

Finding: No permanent buildings are being proposed for construction. Therefore, this standard does not apply.

- d. *If the proposed conditional use involves development that will use utility services; the applicant shall provide statements from the affected utilities that they have reviewed the applicant's proposed plans. These statements shall explicitly set forth the utilities' requirements, terms and conditions providing or expanding service to the proposed development and shall be adopted by the Commission or Director as part of the conditional use permit.*

Finding: The proposed conditional use does not involve development that will use utility services. Therefore, this standard is not applicable.

- e. *If the proposed conditional use involves the development or expansion of a community or non-community public water system, the applicant shall submit a water right permit(s) or documentation that a permit is not required from the Oregon Water Resources Department which indicates that the applicant has the right to divert a sufficient quantity of water from the proposed source to meet the projected need for the proposed use for the next twenty year planning period.*

Finding: The proposed development of the subject property for aggregate and mineral extraction does not involve the development or expansion of a community or non-community public water system. Therefore, this standard is not applicable.

- f. *If the proposed conditional use involves the development or expansion of a community or non-community public water system, the applicant shall install a raw water supply flow monitoring device (flow meter) on the water system and shall record the quantity of water used in the system on a monthly basis. The monthly record of water usage shall be reported to the Curry County Department of Public Services-Planning Division and Health Department Sanitarian on an annual basis.*

Finding: The proposed development of the subject property for aggregate and mineral extraction does not involve the development or expansion of a community or non-community public water system. Therefore, this standard is not applicable.

- g. *If the proposed conditional use included the development or expansion of a community or non-community public water system and the use is located within the service area of a city or special district water system the applicant shall utilize the city or special district water system rather than developing an independent public water system. An independent community or non-community public water system can be developed for the use if the applicant can prove that it would be physically or economically not feasible to connect to the city or special district water system. The city or special district must concur in the conclusion that connection of the proposed use is not feasible.*

Finding: The proposed development of the subject property for aggregate and extraction does not involve the development or expansion of a community or non-community public water system. Therefore, this standard is not applicable.

Section 7.040 (10.) Mining, quarrying, or other extractive activity –Plans and specifications submitted to the Commission for approval must contain sufficient information to allow the Commission to review and set siting standards related to the following standards:

(1.) *Impact of the proposed use on surrounding land uses in terms of Department of Environmental Quality standards for noise, dust, or other environmental factors;*

Finding: The applicant has stated that the operation will be almost entirely on bare gravel. Dust is expected to be minimal but if it becomes an issue, the area will be watered down to keep the dust down. In regards to noise, the applicant has stated that there are no buildings within 500 feet of the proposed operation therefore noise should not be an issue.

To insure that other potential environmental impacts have been properly addressed and the proposed aggregate and mineral resource mining and processing activity, if approved, has reduced impacts within the area, it is recommended that 1. the extraction/processing area be delineated on the gravel bar; 2. the access routes for the operation be defined from the point of extraction to Hwy 101; 3. The access roads be maintained to reduce dust and noise caused by equipment and vehicles; and 4. operations be limited to daylight hours with no operations on holidays or weekends.

(2.) *The impact of the proposed use on water quality, water flow, or fish habitat on affected rivers or streams;*

Finding: The applicant has stated that the impact of this proposed operation should be mostly positive. The waterway of this area of Pistol River has been in disarray for many years. The river has eroded hundreds of feet of river bottom away on the south side of the river causing it to fan out, many times its natural width, that's causing water temperatures to rise, which kills fish, algae growth which lowers oxygen levels in the water and removes safe fish habitat. The applicant has further stated that they will work with fish and wildlife to make improvements whenever possible and that anything they do will be an improvement over the way it is now.

The main stem Pistol River, which is where the gravel mining operation is proposed, contains an abundance of aquatic habitat including both resident and anadromous fish species (chinook and coho). The proposed gravel mining activities will require coordination with the National Marine Fisheries Service (NMFS) and the Oregon Department of Fish and Wildlife (ODFW) through Section 404 of the Clean Waters Act for removal of gravel within the jurisdiction of the Corp of Engineers (COE) and the Oregon Department of State Lands (DSL) Fill Removal Permit.

To insure that water quality, water flow and fish habitat is protected from the potential impacts of the proposed gravel mining process, if approved, it is recommended that 1. any surface waters used for the gravel washing operation and stormwater discharges are managed in accordance

with water quality requirements set forth and reviewed by the Department of Environmental Quality (DEQ) Water Quality 401 Certification process; and 2. any gravel removal is conducted in accordance with permit requirement set forth through the conditions and requirements pertaining to fish and aquatic habitat by the NMFS, ODFW, COE and DSL. This CCZO standard can be met provided the applicant is in compliance with all the conditions set forth by DEQ, NMFS, ODFW, COE, and DSL.

(3.) The impact of the proposed use on overall land stability, vegetation, wildlife habitat and land or soil erosion;

Finding: The applicant has stated that the waterway of the Pistol River has been in disarray for many years, and that the river has eroded hundreds of feet of river bottom away on the south side of the river causing it to fan out, many times its natural width. The applicant has stated a goal to comply with ODFW and doing what is necessary to make it better than prior to commencing gravel extraction operations.

Through the federal and state permitting process noted above, the agencies will require that the applicant prepare an extraction plan with proposed extraction quantities and locations along the river bar. This will include a determination of overall land stability to decrease the potential for land and/or soil erosion and assessing impacts to vegetation and wildlife habitat. It is recommended that this application, if approved, include a requirement to submit the detailed extraction plans for County review to insure compliance with this provision of the CCZO.

(4.) The adequacy of protection for people residing or working in the area from the proposed mining activity through fencing of the site;

Finding: The applicant owns all of the land including and surrounding the proposed gravel extraction location and most of the land within 500 feet of the proposed operation. It would appear that no fencing is necessary since the proposed use is in a rural area and no residences are nearby. It is recommended, if approved, that the road to the extraction operation be gated and locked when not in use to insure compliance with this section of the CCZO.

(5.) The rehabilitation of the land upon termination of the mining activity. The proposed rehabilitation must at least meet the requirements of state surface mining or gravel removal permits.

Finding: To meet this standard, it is recommended that the applicant be required, as a condition of approval, to obtain all required permits and licenses from all federal and state agencies including but not limited to COE, DOGAMI, DEQ, NMFS, ODFW, DEQ and DSL that are necessary for aggregate mining activities and equipment used in these operations prior to

initiating any activity approved herein and shall be kept current with those permits and requirements as necessary. Copies of all current permits and licenses shall be submitted to the Planning Department prior to commencement of operations. All operations approved herein shall be conducted as required by these permits. This CCZO standard can be met if the applicant obtains and meets the conditions of all required federal, state and local permits.

(6.) If the proposed extractive activity involves the removal of rock, gravel, or sediment from a river or stream, the proposal shall be reviewed by the Oregon Department of Fish and Wildlife and it may provide a written statement to the county regarding the possible impact on fish habitat associated with the affected river or stream.

Finding: The Oregon Department of Fish and Wildlife (ODFW) was sent notification of this proposed project for gravel extraction along the Pistol River. As noted above, the Pistol River contains both resident and anadromous fish including coho and chinook. The applicant has stated a desire to work closely with ODFW to enhance the river system where feasible during the gravel extraction operations. The required federal and state permits will include review, comment and potential conditions based on input from both NMFS as well as ODFW in regards to fish habitat. This CCZO standard can be met if the applicant obtains and meets the conditions of all federal, state and local permits.

(7.) The County will define an area around the specific removal site which includes all lands within 250 feet of the site, based on the site map for a state mining or gravel permit. The applicant shall provide findings which identify the existing uses on those lands included within this area. The Commission shall evaluate the applicant's findings with regard to the potentially conflicting uses identified in the area based on the factors below:

- i.) If the mining activity can be sited on an alternative site; and*
- ii.) Where conflicting uses are identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and methods developed to resolve the conflict.*

Finding: The applicant has stated that he owns all of the land within 500 feet of the gravel mining site. Those lands are currently being used as a part of a cattle ranch operation. The gravel mining proposal would not be in conflict with the ranching activities therefore alternatives sites were not considered. A determination of economic, social, environmental and energy consequences was not considered because the activities surrounding the proposed gravel mining are not expected to conflict with cattle grazing.

(8.) A rock crusher, washer or sorter shall not be located closer than 500 feet to any residential or commercial use. Surface mining equipment and necessary access

roads shall be constructed, maintained, and operated in such a manner as to eliminate as far as is practicable, noise, vibration, or dust which are injurious or substantially annoying to persons living in the vicinity.

Finding: The applicant has stated that a rock crusher and/or washer may be on site during the gravel mining operation. However, the applicant has stated further that there are no residences or commercial uses within 500 feet of the proposed operation. Roads will need to be maintained and operated in such a manner as to eliminate as far as practicable, noise, vibration, or dust as stated in Section 7.040 (10)(1) above. Since there are no residential or commercial uses within the 500-foot buffer, there are no potential conflicts within the immediate project area.

(9.) No uses are permitted relating to offshore oil, gas or marine mineral exploration or development.

Finding: Offshore oil, gas, or marine mineral exploration or development is not being proposed. Therefore this standard is not applicable.

Section 7.040 (17) Uses on Resource Lands

a) The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agricultural or forest land.

Finding: The proposed gravel operation includes mining gravel along the Pistol River which has been recruited through a series of winter storms. This gravel bar recruitment area is not used for cattle grazing and therefore will not in any way force a change in or increase the cost of the resource use of the property.

b) The proposed use will not significantly increase fire suppression costs or significantly increase the risks to fire suppression personnel.

Finding: The proposed gravel extraction process will be conducted alongside the Pistol River on a gravel bar. It is not expected that such an operation including the equipment used in the mining process will pose a fire risk to adjacent properties.

c) A written statement be recorded with the deed or written contract with the County or its equivalent shall be obtained from the land owner which recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Oregon Forest Practices Act and related Oregon Administrative Rules.

Finding: To comply with this provision of the CCZO, the applicant will be required to record a statement that recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Oregon Forest Practices Act.

Section 7.045 Conditional and Permitted Uses – Director Periodic Review – *The Director may issue Conditional or Permitted Use permits that must be periodically reviewed to ascertain that the conditions of the permit are being complied with on a continuing basis.*

Finding: There are several gravel mining permits authorized within Curry County consistent with the CCZO provisions outlined above. Most of these permits have been issued and then renewed for periods of 1-5 years provided that they are in continued compliance with all federal, state and county permits. It is recommended that, if this permit is issued, that it be valid for a period of 3 years unless there is a failure of the applicant to comply with all the conditions of approval.

VI. Staff Recommended Conditions of Approval

If the Planning Commission approves the conditional use request filed by Ron Adams for the mining and processing of aggregate along the Pistol River in the Forestry Grazing (FG) Zoning District, staff suggests the following conditions of approval:

1. Prior to commencing operations, the gravel extraction area shall be delineated including the estimated quantities of gravel to be removed. This information shall be provided to the Planning Director for review to ascertain consistency with the Conditional Use Permit Conditions.
2. Prior to commencing operations, the access routes for the operation shall be defined from the point of extraction to Hwy 101. This information shall be provided to the Planning Director for review to ascertain consistency with the Conditional Use Permit Conditions.
3. All access routes (roads) shall be maintained to reduce dust and noise caused by equipment and vehicles.
4. Operations shall be limited to daylight hours with no operations on holidays or weekends.
5. Any surface waters used or impacted by the operations shall be managed in accordance with stormwater requirements set forth through the Department of Environmental Quality (DEQ) and contained within Section 401 Clean Water Act.
6. Gravel removal shall be conducted in accordance with permit requirements set forth through the conditions and requirements pertaining to fish and aquatic habitat by the National Marine Fisheries Service (NMFS), Oregon Department of Fish and Wildlife (ODFW), Corp of Engineers (COE), Oregon Department of State Lands (DSL) and the Oregon Department of Environmental Quality (DEQ).

7. The detailed extraction plans required by the COE, the Department of Geology and Mineral Industries (DOGAMI) and DSL shall be submitted to the County for review to insure compliance with the CCZO.
8. The access road to the gravel extraction site shall be gated and locked when not in use.
9. All required federal, state and local permits and licenses for gravel extraction shall be obtained and conditions complied with prior to and during operations. These include but are not limited to: COE, DOGAMI, DEQ, NMFS, ODFW, DSL, and Oregon Water Resources. Copies of all current permits and licenses shall be submitted to the Planning Department prior to commencement of operations. All operations approved herein shall be conducted as required by these permits.
10. A written statement shall be recorded with the County which recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Oregon Practices Act.
11. This Conditional Use Permit shall be valid for a period of three (3) years unless there is a failure of the applicant to comply with all the conditions of approval. Failure to comply with all conditions of approval, or violations concerning the use approved herein, may result in nullification of this approval by the County.

July 22, 2019

Curry County Community Development Department PLANNING COMMISSION STAFF REPORT

Application AD-1907 is a request for conditional use approval for the mining and processing of aggregate along the Pistol River in the Forestry Grazing (FG) Zoning District. A public hearing was held for this application by the Planning Commission on June 20th, 2019. A decision was made by the Planning Commission to close the public hearing at that time and leave the record open for 14 days.

1. Background Information

Owner:	Ronald Adams 26000 Myers Creek Road Gold Beach, OR 97444
Applicant:	Ronald Adams 26000 Myers Creek Road Gold Beach, OR 97444
Land Use Review:	Administrative Conditional Use Review Referred to the Planning Commission by Planning Director.
Property Description:	Assessor's Map 38-14-00, Tax Lot 4900; Assessor's Map 38-14-19D TL 200
Location	Located above the Pistol River Bridge on Pistol River Loop Road, approximately .20 miles east from its intersection with US Hwy 101 and outside the Gold Beach Urban Growth Boundary (UGB).
Existing Development:	None. Property is river/gravel resource with cattle grazing on adjacent lands. Gravel mining has occurred in the area previously.
Proposed Development:	Proposed gravel extraction primarily on the gravel bar which may include some processing.
Zone:	Forestry Grazing (FG) Zoning District

II. Applicable Review Criteria

To approve this application, the Planning Commission must determine that it is in conformance with the following sections of the Curry County Zoning Ordinance (CCZO):

Curry County Zoning Ordinance (CCZO)

Section 3.050	Forestry Grazing
Section 3.052	Conditional Uses Subject to Administrative Approval by the Director
	24. Land Based Mining (1, 10, 17)
Section 2.090	Procedure for Conditional and Permitted Uses
Section 7.010	Authorization to Grant or Deny Conditional Uses
Section 7.040	Standards Governing Conditional Uses
	1. Conditional Uses Generally
	10. Mining, quarrying, or other extractive activity
	17. Uses on Resource Land
Section 7.050	Time Limit on a Permit for Conditional Uses

III. Discussion

On June 20, 2019 the Planning Commission closed the public hearing on this application and left the record open for 14 days to allow for additional written evidence, arguments or testimony. Since closing the hearing and leaving the record open, the Planning Department has received new factual information from the applicant as well as arguments and written testimony from the applicant and citizens.

The applicant's July 15, 2019 submittal specifically identifies the method to be used for gravel extraction. The applicant states "I am proposing to remove the gravel from this site by scalping the river bar that is up away from the river". This information regarding the method to be used and the general location of the removal being the gravel bar as opposed to, for example, the river channel is new factual information that was not contained in the original application or presented by the applicant at the June 20, 2019 hearing.

In adherence to Oregon Revised Statute (ORS) 197.763 (6) *Conduct of local quasi-judicial land use hearings; notice requirements; hearing procedures*, Legal Counsel has reviewed the record to date for this application and provided the attached guidance for the Planning Commission's consideration.

V. Staff Recommendation

At this time staff recommends the Planning Commission follow the legal advice of County Counsel to re-open the record for AD-1907 and allow seven (7) days for any party to submit new evidence or argument in relation to the gravel extraction method disclosed by the applicant.

August 8, 2019

Curry County Community Development Department PLANNING COMMISSION STAFF REPORT

Application AD-1907 is a request for conditional use approval for the mining and processing of aggregate along the Pistol River in the Forestry Grazing (FG) Zoning District. This is a revised and updated staff report that supersedes the original March 28, 2019 staff report to the Planning Commission. It has been revised to reflect and address the issues and information that has been presented in the record. The new information (revisions) are noted in this staff report with underlines in the text.

Guidance has been provided from County Counsel's office for the Planning Commission's consideration in reaching a decision on this proposed use (attached).

1. Background Information

Owner:	Ronald Adams 26000 Myers Creek Road Gold Beach, OR 97444
Applicant:	Ronald Adams 26000 Myers Creek Road Gold Beach, OR 97444
Land Use Review:	Administrative Conditional Use Review Referred to the Planning Commission by Planning Director.
Property Description:	Assessor's Map 38-14-00, Tax Lot 4900; Assessor's Map 38-14-19D TL 200
Location	Located above the Pistol River Bridge on Pistol River Loop Road, approximately .20 miles east from its intersection with US Hwy 101 and outside the Gold Beach Urban Growth Boundary (UGB).
Existing Development:	None. Property is river/gravel resource with cattle grazing on adjacent lands. Gravel mining has occurred in the area previously.

Proposed Development: Proposed gravel extraction primarily on the gravel bar which may include some processing.

Zone: Forestry Grazing (FG) Zoning District

II. Applicable Review Criteria

To approve this application, the Planning Commission must determine that it is in conformance with the following sections of the Curry County Zoning Ordinance (CCZO):

Curry County Comprehensive Plan

Goal 5 – Natural Resources b. mineral and aggregate resources

Curry County Zoning Ordinance (CCZO)

Section 3.050	Forestry Grazing
Section 3.052	Conditional Uses Subject to Administrative Approval by the Director
	24. Land Based Mining (1, 10, 17)
Section 2.090	Procedure for Conditional and Permitted Uses
Section 7.010	Authorization to Grant or Deny Conditional Uses
Section 7.040	Standards Governing Conditional Uses
	1. Conditional Uses Generally
	10. Mining, quarrying, or other extractive activity
	17. Uses on Resource Land
Section 7.050	Time Limit on a Permit for Conditional Uses

III. Findings

Goal 5 – Natural Resources b. mineral and aggregate resources – As was identified and explained at the June 20th, 2019 Planning Commission meeting, the Curry County Comprehensive Plan identifies the proposed gravel extraction area as a mineral and aggregate Natural Resource. The Comprehensive Plan sets forth the following policies with regard Mineral and Aggregate Resources:

- 1. Curry County recognizes the value of the mineral resources present in the county and seeks their development wherever possible to the benefit of the people and other resources of the county with protection for fish and wildlife habitat.*
- 2. Sand, gravel and quarry rock deposits identified in the comprehensive plan are currently the most productive mineral resources in Curry County and the continued utilization of these mineral resources is important to the local economy.*

Facts: The area for the proposed gravel bar scalping operation has a long history of gravel extraction. Gravel has been extracted at the site for the construction of highway 101 as well as multiple County road projects. The site was approved for 50,000 cubic yards to be extracted annually in 2003 (AD-3030). However, the County approval was revoked in 2005 because not all of the federal and state agency permits were able to be obtained. The prior approvals and utilization of the site to provide gravel for projects within the county is consistent with the policies set forth in the Comprehensive Plan. The protection of fish and wildlife is within the jurisdiction of the Federal National Marine Fisheries Services (NMFS) and the Oregon Department of Fish and Wildlife (ODFW).

Finding: The County utilizes the fish and wildlife technical staff of these agencies to determine and incorporate their criteria and conclusions into review of the County's decision by requiring the applicant to satisfy these agency requirements. Both agencies will review and provide documentation on impacts and required mitigation for fish and wildlife resources for this project that can satisfy the County's policy of protection for fish and wildlife. If the applicant is unable to comply with the requirements of the NMFS and the ODFW, then the County's conditions cannot be met and the County permit will be revoked as was the case for AD-3030. The NMFS will review the project through Section 7 of the Endangered Species Act (ESA) as required by the Corp of Engineers Section 404 and Rivers and Harbors Act Section 10 permitting processes and the ODFW will review the project through the Oregon Division of State Lands Fill Removal permit process. This finding can be met with the applicant's compliance and subsequent submittal of documentation of compliance to the County of the requirements of both the NMFS and the ODFW through permits that will be required to be issued for the project by the Corp of Engineers and the Division of State Lands.

Section 3.050 Forestry Grazing (FG) – *The Forestry Grazing Zone is applied to resource areas of the county where the primary land use is commercial forestry with some intermixed agricultural uses for livestock uses.*

Finding: This section of the CCZO states the purpose of the Forestry Grazing zoning district. The primary uses established on the property are a mix of forestry and cattle grazing which are consistent with the purpose of the FG zoning district. Land-based mining and processing of aggregate and mineral resources are allowed as a conditional use in the Forestry Grazing Zone and have historically been established as a compatible use consistent with forestry and grazing activities on this as well as similar properties along the Pistol River. This standard of the CCZO is met.

Section 3.052 Conditional Uses Subject to Administrative Approval by the Director

24. Land-based mining and processing of oil, gas, or other subsurface resources, as defined in ORS Chapter 520 and not otherwise permitted in 3.041 (10), and the mining and processing of aggregate and mineral resources as defined under ORS Chapter 517 but not including support or processing facilities for offshore oil, gas or marine mineral activities (1,10,17).

Facts: The mining of aggregate and mineral resources, as defined under ORS Chapter 517, is allowed in the Forestry Grazing zone provided that a prospective applicant submits a land use application and the County approves the proposed use based upon relevant standards for review. ORS Chapter 517 reads as follows:

ORS 517.750(15)(a): Subsurface mining means “all or any part of the process of mining minerals by the removal of the overburden and the extraction of natural mineral deposits thereby exposed by any method by which more than 5,000 cubic yards of mineral are extracted or by which at least one acre of land is affected within a period of 12 consecutive calendar months..”

Finding: The applicant is proposing to develop an aggregate and mineral mining and processing site on a portion of the subject property on more than one acre of land. The estimated quantity of material to be extracted from the river gravel bar is approximately 10,000 cubic yards. The proposed aggregate project meets the definition of mining as stated above and the applicant has submitted an application for a conditional use permit addressing the criteria set forth as required in the CCZO.

Section 2.090 – Procedure for Conditional and Permitted Use Permits – *After accepting a completed application for Administrative Action pursuant to Section 2.060, the Director shall act on or cause a hearing to be held on the application pursuant to Section 2.062*

Finding: The proposed request for an aggregate mining activity in the FG zone is an administrative decision. However, it is being referred to the Planning Commission for a public hearing.

Section 7.010 Authorization to Grant or Deny Conditional Uses – *In permitting a conditional or permitted use the County may impose conditions in addition to the provisions set for uses within each zone in order to protect the best interests of the surrounding property, the neighborhood, or the County as a whole.*

Finding: After review of this application, information provided by the applicant and interested parties during the hearings process, the Planning Commission may impose additional conditions as appropriate to insure that the proposed use fits the interests of the County.

Section 7.040 Standards Governing Conditional Uses – *In addition to the standards of the zone in which the conditional use is located and the other standards in this ordinance, conditional uses must meet the following standards:.*

Conditional Uses Generally

- a. *The County may require property line set-backs or building height restrictions other than those specified in Article IV in order to render the proposed conditional use compatible with surrounding land use.*

Finding: Since there are no buildings proposed, there is no need for any property line setbacks or height restrictions in order for the proposed use to be compatible with the surrounding land uses.

- b. *The County may require access to the property, off-street parking, additional lot area, or buffering requirements other than those specified in Article IV in order to render the proposed conditional use compatible with surrounding land uses.*

Finding: Access to the gravel bar is proposed to be a private access on property owned by the applicant. There is no need for public access, off-street parking or additional lot area or buffering requirements for the proposed use.

- c. *The County may require that the development be constructed to standards more restrictive than the Uniform Building Code or the general codes in order to comply with the specific standards established and conditions imposed in granting the conditional use permit for the proposed use.*

Finding: No permanent buildings are being proposed for construction. Therefore, this standard does not apply.

- d. *If the proposed conditional use involves development that will use utility services; the applicant shall provide statements from the affected utilities that they have reviewed the applicant's proposed plans. These statements shall explicitly set forth the utilities' requirements, terms and conditions providing or expanding service to the proposed development and shall be adopted by the Commission or Director as part of the conditional use permit.*

Finding: The proposed conditional use does not involve development that will use utility services. Therefore, this standard is not applicable.

- e. *If the proposed conditional use involves the development or expansion of a community or non-community public water system, the applicant shall submit a water right permit(s) or documentation that a permit is not required from the Oregon Water Resources Department which indicates that the applicant has the right to divert a sufficient quantity of water from the proposed source to meet the projected need for the proposed use for the next twenty year planning period.*

Finding: The proposed development of the subject property for aggregate and mineral extraction does not involve the development or expansion of a community or non-community public water system. Therefore, this standard is not applicable.

- f. *If the proposed conditional use involves the development or expansion of a community or non-community public water system, the applicant shall install a raw water supply flow monitoring device (flow meter) on the water system and shall record the quantity of water used in the system on a monthly basis. The monthly record of water usage shall be reported to the Curry County Department of Public Services-Planning Division and Health Department Sanitarian on an annual basis.*

Finding: The proposed development of the subject property for aggregate and mineral extraction does not involve the development or expansion of a community or non-community public water system. Therefore, this standard is not applicable.

- g. *If the proposed conditional use included the development or expansion of a community or non-community public water system and the use is located within the service area of a city or special district water system the applicant shall utilize the city or special district water system rather than developing an independent public water system. An independent community or non-community public water system can be developed for the use if the applicant can prove that it would be physically or economically not feasible to connect to the city or special district water system. The city or special district must concur in the conclusion that connection of the proposed use is not feasible.*

Finding: The proposed development of the subject property for aggregate and extraction does not involve the development or expansion of a community or non-community public water system. Therefore, this standard is not applicable.

Section 7.040 (10.) Mining, quarrying, or other extractive activity –Plans and specifications submitted to the Commission for approval must contain sufficient information to allow the Commission to review and set siting standards related to the following standards:

(1.) *Impact of the proposed use on surrounding land uses in terms of Department of Environmental Quality standards for noise, dust, or other environmental factors;*

Facts: The applicant has stated that:

“The gravel operation will be through a scalping process on the upland river bar. Dust will be minimal but if it becomes an issue, we will water the area down. Noise should not be an issue, reason being there are not any buildings of any kind within 500 feet”.

Finding: The DEQ will be required to review the project through the Clean Waters Act 401 Certification process and will address issues of environmental factors within their jurisdiction including water quality. The County will rely on the technical expertise of the DEQ staff to ascertain impacts, mitigation and conditions appropriate for addressing water quality related to the project and require the documentation and compliance with DEQ’s 401 Certification process as a condition of this conditional use if approved. In regards to the issues of noise, dust or other environmental factors it cannot be determined what the extent of potential impacts will be unless and until a specific defined extraction area has been determined by the applicant and approved by the Corp of Engineers and Division of State Lands.

The County is required to determine whether there is enough information contained in the application to apply the criteria and conclude that based on the review of outside federal and state agency technical expertise whether the County’s criteria can be met. This considers the applicability of the federal and state requirements as directly related to the CCZO criteria. Based on information in the application, including the new information submitted, which identifies the gravel operation to be bar scalping, the impact of the proposed use on surrounding land uses in terms of DEQ standards for noise, dust, or other environmental factors cannot be determined and therefore this criteria cannot be met.

(2.) *The impact of the proposed use on water quality, water flow, or fish habitat on affected rivers or streams;*

Facts: The applicant has stated that:

“The impact of this proposed operation should be mostly positive. The waterway of this area of Pistol River has been in disarray for many years. The river has eroded hundreds of feet of river bottom away on the south side of the river causing it to fan out, many times its natural width, that’s causing water temperatures to rise, which kills fish, algae

growth which lowers oxygen levels in the water and removes safe fish habitat. We will work with fish and wildlife to make improvements whenever possible. Anything we do will be an improvement over the way it is now.”

The main stem Pistol River, which is where the gravel mining operation is proposed, contains an abundance of aquatic habitat including both resident and anadromous fish species (chinook and coho). The proposed gravel mining activities will require coordination with the National Marine Fisheries Service (NMFS) and the Oregon Department of Fish and Wildlife (ODFW) through Section 404 of the Clean Waters Act for removal of gravel within the jurisdiction of the Corp of Engineers (COE) and the Oregon Department of State Lands (DSL) Fill Removal Permit. As was discussed at the June 20th Planning Commission meeting, the site is also within an area of estuarine influence and includes fish species protected under the Endangered Species Act (ESA).

Finding: The County is required to determine whether there is enough information contained in the application to apply the criteria and conclude that based on the review of outside federal and state agency technical expertise whether the County’s criteria can be met. This considers the applicability of the federal and state requirements as directly related to the CCZO criteria. Based on information in the application, including the new information submitted, which identifies the gravel operation to be bar scalping, the impact of the proposed use on water quality, water flow, or fish habitat on the affected Pistol River cannot be determined and therefore this criteria cannot be met.

(3.)The impact of the proposed use on overall land stability, vegetation, wildlife habitat and land or soil erosion;

Facts: The applicant has stated:

“The waterway of this area of Pistol River has been in disarray for many years. The river has eroded hundreds of feet of river bottom away on the south side of the river causing it to fan out, many times its natural width, that’s causing water temperatures to rise, which kills fish, algae growth which lowers oxygen levels in the water and removes safe fish habitat. Rehabilitation will be to comply with ODFW and doing what is necessary to make it better than prior to commencing gravel extraction operations.”

Through the federal and state permitting process noted above, the agencies will require that the applicant prepare an extraction plan with proposed extraction quantities and locations along the river bar. This will include a determination of overall land stability to decrease the potential for land and/or soil erosion and assessing impacts to vegetation and wildlife habitat. It is

recommended that this application, if approved, include a requirement to submit the detailed extraction plans for County review to insure compliance with this provision of the CCZO.

Finding: The County is required to determine whether there is enough information contained in the application to apply the criteria and conclude that based on the review of outside federal and state agency technical expertise whether the County's criteria can be met. This considers the applicability of the federal and state requirements as directly related to the CCZO criteria. Based on information in the application, including the new information submitted, which identifies the gravel operation to be bar scalping, the impact of the proposed use on overall land stability, vegetation, wildlife habitat and land or soil erosion cannot be determined and therefore this criteria cannot be met.

(4.) The adequacy of protection for people residing or working in the area from the proposed mining activity through fencing of the site;

Facts: The applicant owns all of the land including and surrounding the proposed gravel extraction location and most of the land within 500 feet of the proposed operation. The proposed use is in a rural area and no residences are nearby.

Finding: The surrounding area of the gravel operation is the private land of the applicant and is not open to the public. It is recommended, if approved, that the road to the extraction operation be gated and locked for the protection of people when not in use to insure compliance with this section of the CCZO. This criteria is met.

(5.) The rehabilitation of the land upon termination of the mining activity. The proposed rehabilitation must at least meet the requirements of state surface mining or gravel removal permits.

Facts: In regards to rehabilitation of the land, the applicant has stated:

"Rehabilitation will be to comply with ODF&W and doing what is necessary to make it better than when we started."

Finding: To meet this standard, it is recommended that the applicant be required, as a condition of approval, to obtain all required permits and licenses from all federal and state agencies including but not limited to COE, DOGAMI, DEQ, NMFS, ODFW, DEQ and DSL that are necessary for aggregate mining activities including the rehabilitation of the land and equipment used in these operations prior to initiating any activity approved herein and shall be kept current with those permits and requirements as necessary. Copies of all current permits and licenses shall be submitted to the Planning Department prior to commencement of operations. All operations shall be conducted as required by these permits. This CCZO standard can be met for

the rehabilitation of the land if the applicant obtains and meets the conditions of all required federal, state and local permits as stated pursuant to CCZO Section 7.040(10.)(5.).

(6.) If the proposed extractive activity involves the removal of rock, gravel, or sediment from a river or stream, the proposal shall be reviewed by the Oregon Department of Fish and Wildlife and it may provide a written statement to the county regarding the possible impact on fish habitat associated with the affected river or stream.

Facts: The Oregon Department of Fish and Wildlife (ODFW) was sent notification of this proposed project for gravel extraction along the Pistol River. As noted above, the Pistol River contains both resident and anadromous fish including coho and chinook and is within an estuarine habitat. The applicant has stated a desire to work closely with ODFW to enhance the river system where feasible during the gravel extraction operations. The federal and state permits required for this project will include review, comment and potential conditions based on input from both NMFS as well as ODFW in regards to fish habitat.

Finding: A written statement has not been submitted by ODFW, nor has the applicant provided information that indicates that ODFW has provided input to the proposed project that addresses the possible impacts on fish habitat associated with effects on the Pistol River. Therefore this criteria cannot be met.

(7.) The County will define an area around the specific removal site which includes all lands within 250 feet of the site, based on the site map for a state mining or gravel permit. The applicant shall provide findings which identify the existing uses on those lands included within this area. The Commission shall evaluate the applicant's findings with regard to the potentially conflicting uses identified in the area based on the factors below:

- i.) If the mining activity can be sited on an alternative site; and*
- ii.) Where conflicting uses are identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and methods developed to resolve the conflict.*

Facts: The applicant has stated:

“I own all the land where this operation will operate and most of the land within 500 feet of it. All residents are at least 500 feet from operations. Those lands are currently being used as part of a cattle ranch operation. The gravel mining proposal would not be in conflict with the ranching activities therefore alternative sites were not considered.”

Finding: County review using the Geographic Information System (GIS) and field verification determined that the lands within 250 feet of the site are dedicated to cattle grazing. A determination of economic, social, environmental and energy consequences was not considered because the activities surrounding the proposed gravel mining are not expected to conflict with cattle grazing. This criteria is met.

(8.) A rock crusher, washer or sorter shall not be located closer than 500 feet to any residential or commercial use. Surface mining equipment and necessary access roads shall be constructed, maintained, and operated in such a manner as to eliminate as far as is practicable, noise, vibration, or dust which are injurious or substantially annoying to persons living in the vicinity.

Facts: The applicant has stated:

“a rock crusher and/or washer may be on site during the gravel mining operation. There are no residences or commercial uses within 500 feet of the proposed operation.”

Finding: Since there are no residential or commercial uses within the 500-foot buffer, there are no potential conflicts within the immediate project area. This criteria is met.

(9.) No uses are permitted relating to offshore oil, gas or marine mineral exploration or development.

Finding: Offshore oil, gas, or marine mineral exploration or development is not being proposed. Therefore this standard is not applicable.

Section 7.040 (17) Uses on Resource Lands

a) The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agricultural or forest land.

Finding: The proposed gravel operation includes mining gravel along the Pistol River which has been recruited through a series of winter storms. This gravel bar recruitment area is not used for cattle grazing and therefore will not in any way force a change in or increase the cost of the resource use of the property.

- b) *The proposed use will not significantly increase fire suppression costs or significantly increase the risks to fire suppression personnel.*

Finding: The proposed gravel extraction process will be conducted alongside the Pistol River on a gravel bar. It is not expected that such an operation including the equipment used in the mining process will pose a fire risk to adjacent properties. Therefore, this criteria is not applicable.

- c) *A written statement be recorded with the deed or written contract with the County or its equivalent shall be obtained from the land owner which recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Oregon Forest Practices Act and related Oregon Administrative Rules.*

Finding: To comply with this provision of the CCZO, the applicant will be required to record a statement that recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Oregon Forest Practices Act.

Section 7.045 Conditional and Permitted Uses – Director Periodic Review – *The Director may issue Conditional or Permitted Use permits that must be periodically reviewed to ascertain that the conditions of the permit are being complied with on a continuing basis.*

Finding: There are several gravel mining permits authorized within Curry County consistent with the CCZO provisions outlined above. Most of these permits have been issued and then renewed for periods of 1-5 years provided that they are in continued compliance with all federal, state and county permits. It is recommended that, if this permit is issued, that it be valid for a period of 3 years unless there is a failure of the applicant to comply with all the conditions of approval.

VI. Staff Recommendation and Conditions of Approval

In order to determine if this proposed project is in compliance with the provisions of the Curry County Comprehensive Plan and the Curry County Zoning Ordinance (CCZO) the findings set forth above must be addressed and met with a level of confidence that the potentially significant environmental issues associated with the project can be mitigated. This will require the reliance of technical staff from multiple federal and state agencies in coordination with County staff addressing the issues. The fundamental concern that is apparent with this application is that it lacks detail on what the operation entails and there has been little or no coordination and discussion regarding the multiple federal and state agencies that will need to be involved in gaining permit compliance with the currently undefined operation. This situation requires staff to make an assumption that the multiple federal and state agencies will work with the applicant

and do their due diligence in addressing the environmental issues to the satisfaction of meeting the County requirements and thus satisfy the findings. In reflecting on the attached legal memorandum from the County Counsel, whereby “the decisions should be based on evidence in the record not assumptions”, staff recommends that the application be denied.

If the Planning Commission approves the conditional use request filed by Ron Adams for the mining and processing of aggregate along the Pistol River in the Forestry Grazing (FG) Zoning District, staff suggests the following conditions of approval:

1. Prior to commencing operations, the gravel extraction area shall be delineated including the estimated quantities of gravel to be removed. This information shall be provided to the Planning Director for review to ascertain consistency with the Conditional Use Permit Conditions.
2. Prior to commencing operations, the access routes for the operation shall be defined from the point of extraction to Hwy 101. This information shall be provided to the Planning Director for review to ascertain consistency with the Conditional Use Permit Conditions.
3. All access routes (roads) shall be maintained to reduce dust and noise caused by equipment and vehicles.
4. Operations shall be limited to daylight hours with no operations on holidays or weekends.
5. Any surface waters used or impacted by the operations shall be managed in accordance with stormwater requirements set forth through the Department of Environmental Quality (DEQ) and contained within Section 401 Clean Water Act.
6. Gravel removal shall be conducted in accordance with permit requirements set forth through the conditions and requirements pertaining to fish and aquatic habitat by the National Marine Fisheries Service (NMFS), Oregon Department of Fish and Wildlife (ODFW), Corp of Engineers (COE), Oregon Department of State Lands (DSL) and the Oregon Department of Environmental Quality (DEQ).
7. The detailed extraction plans required by the COE, the Department of Geology and Mineral Industries (DOGAMI) and DSL shall be submitted to the County for review to insure compliance with the CCZO.
8. The access road to the gravel extraction site shall be gated and locked when not in use.
9. All required federal, state and local permits and licenses for gravel extraction shall be obtained and conditions complied with prior to and during operations. These include but are not limited to: COE, DOGAMI, DEQ, NMFS, ODFW, DSL, and Oregon Water Resources. Copies of all current permits and licenses shall be submitted to the Planning Department prior to commencement of operations. All operations approved herein shall be conducted as required by these permits.

10. A written statement shall be recorded with the County which recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Oregon Practices Act.
11. This Conditional Use Permit shall be valid for a period of three (3) years unless there is a failure of the applicant to comply with all the conditions of approval. Failure to comply with all conditions of approval, or violations concerning the use approved herein, may result in nullification of this approval by the County.

MEMORANDUM

FROM Shala M. Kudlac, Asst. County Counsel
TO Curry County Planning Commission
RE Adams – AD 1907
DATE August 6, 2019

Introduction

This memorandum addresses the legal standards for processing the above referenced application as it pertains to public comment received after the hearing had closed on June 20, 2019 and the record remained open. This is intended to supplement the staff report provided by the Planning Dept.

It will describe the laws and ordinances that govern the Commission's analysis of the application, and describe possible outcomes given the facts of the application as well as those that developed through submissions of the public and applicant.

Facts

This application is a CUP for a for the mining and processing of aggregate along the Pistol River in the Forestry Grazing (FG) Zoning District

Applicable Law and Issues

The staff report of May 28, 2019 sets out the applicable law for this permit. Comments from the public and applicant received after the hearing closed on June 20, 2019 were predominantly surrounding two areas of discussion:

- 1) Whether the application contained enough information for the Planning Commission to make a decision as required by CCZO 7.040(10)(a) "Mining, quarrying, or other extractive activity – Plans and specification submitted to the Commission for approval must contain sufficient information to allow the Commission to review and set siting standards related to the following standards:
 1. Impact of the proposed use on surrounding land uses in terms of Department of Environment Quality standards for noise, dust, or other environmental factors;
 2. The impact of the proposed use on water quality, water flow, or fish habitat on affect rivers or streams
 3. The impact of the proposed use on overall land stability, vegetation, wildlife habitat and land or soil erosion;
 4. The adequacy of protection for people residing or working in the area from the proposed mining activity through fencing of the site;
 5. The rehabilitation of the land upon termination of the mining activity. The proposed rehabilitation must at least meet the requirements of state surface mining or gravel removal permits.
 6. If the proposed extractive activity involves the removal of rock, gravel, or sediment from a river or stream, the proposal shall be reviewed by the Oregon Department of Fish and

Wildlife and it may provide a written statement to the county regarding the possible impact on fish habitat associated with the affected river or stream.

7. The County will define an area around the specific removal site which includes all lands within 250 feet of the site, based on the site map for a state mining or gravel permit. The applicant shall provide findings which identify the existing uses on those lands included within this area. The Commission shall evaluate the applicant's findings with regard to the potentially conflicting uses identified in the area based on the factors below:
 - i. If the mining activity can be sited on an alternate site; and
 - ii. where conflicting uses are identified the economic, social environmental and energy consequences of the conflicting uses shall be determined and methods developed to resolve the conflict.
8. A rock crusher, washer or sorter shall not be located closer than 500 feet to any residential or commercial use. Surface mining equipment and necessary access roads shall be constructed, maintained, and operated in such a manner as to eliminate, as far as is practicable, noise, vibration, or dust which are injurious or substantially annoying to persons living in the vicinity.
9. No uses are permitted relating to offshore oil, gas or marine mineral exploration or development.”

- 2) Whether the Planning Commission can satisfy the aforementioned code provisions by setting out a requirement that the Applicant comply with all state and federal permitting requirements.

Analysis

The Planning Commission will ultimately need to consider whether it has enough information to apply the code and render a positive or negative decision on this application and how other agencies permitting process can be used to satisfy the required criteria. In making that decision prior court precedent does allow a local jurisdiction “to establish compliance with the challenged definitional criterion with regard to applicable state codes, the city must only establish which, if any, agency codes contain approval criteria, and that as a matter of law, intervenors are not precluded from obtaining such agency permit”. In other words, the County’s findings need to set out what state agencies have applicable codes and whether the applicant is legally precluded from obtaining a permit from those state agencies. *Miller v. City of Joseph*, LUBA No. 96-006 (Or. LUBA 8/21/1996).

The staff report sets out findings applicable to CCZO 7.040(10) for the Planning Commission to either accept, deny or modify during their deliberation process. The Planning Commission can determine from the record before it whether or not it has sufficient information on which to make a decision or whether the application should be denied due to lack of information. In undertaking its analysis the standard which will be used at LUBA should this matter be appealed is whether there was substantial evidence in the record to support the Board’s finding and ultimately its decision. The applicant bears the burden of proof and the decisions should be based on evidence in the records not assumptions. *Wolverton v. Crook County*, LUBA No. 97-233 (Or. LUBA 5/29/1998) (Or. LUBA, 1998). Where there is conflicting evidence the decision must be that which can be reached by a reasonable person presented with the same evidence.

In making a decision based upon the record before it the Board should be mindful that where a local government determines that the approval criterion is met or that feasible solutions to identified problems exist, and impose necessary conditions to deal with those problems—those findings and conditions may be challenged as inadequate or not supported by substantial evidence. *Salo v. City of Oregon City*, 36 Or LUBA 415, 428-29 (1999). The findings should reference evidence found within the record to substantiate the decision.

Summary

The comments received since closing the hearing primarily surrounded a lack of information in the application and object to the County relying upon state and federal agency permits to fulfill the criteria required in CCZO 7.040(10). If the applicant has shown with substantial evidence that his project fulfills the requirements of the code or can do so with conditions, the Commission can approve the application. If the application lacks sufficient evidence on which to base reasonable findings the application is likely subject to attack at LUBA.

Shala M. Kudlac

Asst. County Counsel

MEMORANDUM

FROM Shala M. Kudlac, Asst. County Counsel
TO Curry County Planning Commission
RE Adams – AD 1907
DATE August 6, 2019

Introduction

This memorandum addresses the legal standards for processing the above referenced application as it pertains to public comment received after the hearing had closed on June 20, 2019 and the record remained open. This is intended to supplement the staff report provided by the Planning Dept.

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The comments received since closing the hearing primarily surrounded a lack of information in the application and object to the County relying upon state and federal agency permits to fulfill the criteria required in CCZO 7.040(10). If the applicant has shown with substantial evidence that his project fulfills the requirements of the code or can do so with conditions, the Commission can approve the application. If the application lacks sufficient evidence on which to base reasonable findings the application is likely subject to attack at LUBA.

Shala M. Kudlac

Asst. County Counsel



CURRY COUNTY COMMUNITY DEVELOPMENT
94235 MOORE STREET, SUITE 113
GOLD BEACH, OREGON 97444

Becky Crockett
Planning Director

Phone (541) 247-3228
FAX (541) 247-4579

September 23, 2019

Ron Adams
26000 Myers Creek Road
Gold Beach, Oregon 97444

RE: Notice of Decision
Application AD-1907
Map 38-14-00 Tax Lot 4900 and Map 38-14-19D Tax Lot 200

Following a public hearing on June 20, 2019 and subsequent opportunities for additional testimony, evidence and arguments to be entered into the record until July 31, 2019, the Planning Commission **denied** your request for Conditional Use approval for land-based mining and processing of aggregate along the Pistol River. Enclosed is the Planning Commission Order with the findings supporting the decision. If you have any questions regarding this document, please contact the Curry County Planning Department.

A decision of the Planning Commission may be appealed to the Board of Commissioners by filing an application for appeal together with a fee of \$ 2306.00 with the Planning Department within fifteen (15) days of the mailing date (postmark) of this notice. If no notice is filed within this period, the decision of the Planning Commission is final.

Sincerely,

Becky Crockett
Curry County Planning Director

Enclosure
Copy to file AD-1907



Curry County Community Development

94235 MOORE STREET, SUITE 113
GOLD BEACH, OREGON 97444

Becky Crockett
Planning Director

Phone (541) 247-3228
FAX (541) 247-4579

BEFORE THE PLANNING COMMISSION CURRY COUNTY, OREGON

In the matter of Planning Commission file AD-1907,)
a request for a Conditional Use approval for land-based)
mining and processing of aggregate along the Pistol River)
in the Forestry Grazing (FG) zoning district)

FINAL ORDER
and Findings of Fact

ORDER in the DENIAL of the request to approve the Conditional Use application AD-1907, filed by Ronald Adams., for land-based mining and processing of aggregate along the Pistol River. The subject property is located in the Forestry Grazing (FG) zone, and is designated as Assessor Map Numbers: 3814-00, tax lot 4900 and 3814-19D, tax lot 200, in Curry County, Oregon. Said application was filed as provided for in the Curry County Zoning Ordinance (CCZO) on May 13, 2019.

WHEREAS:

This matter came before the Curry County Planning Commission for a decision on August 15, 2019. The application (AD-1907) sought approval for land-based mining and processing of aggregate along Pistol River on property identified as Curry County Assessor's Map No.: 3814-00, tax lot 4900 and 3814-19D, tax lot 200 within the Forestry Grazing (FG) zone. A public hearing was held before the Planning Commission as a matter duly set upon the agenda of a regular meeting on June 20, 2019, after giving public notice to affected property owners and publication in the local newspaper as set forth in Section 2.070 of the CCZO.

At the public hearing on said application evidence and testimony was presented by the Planning Director in the form of Findings of Fact, Conclusions, and Exhibits. The hearing was conducted according to the rules of procedure and conduct of hearings on land use matters as set forth in Section 2.140 of the CCZO. The Planning Commission received oral and written evidence concerning this application. A decision was made by the Planning Commission to close the public hearing at that time and leave the record open for 14 days, until July 5, 2019.

Additional written evidence was submitted into the record during the 14 days in which the record was left open after the close of the public hearing. The applicant submitted new evidence into the record. The Planning Commission convened on July 25, 2019 to deliberate on the new evidence. At that time, the Planning Commission made a decision to re-open the record for an additional 7 days to provide an opportunity for interested persons to respond to the new evidence submitted by the applicant.

The Planning Commission convened again on August 15, 2019 to deliberate on the evidence submitted into the record. At the conclusion of review and consideration of the evidence in the record and upon a

motion duly made and seconded, the Planning Commission voted to **DENY** Conditional Use Application AD-1907 based on findings of fact and conclusions of law as set forth in this order and in Exhibit 1 attached hereto and included herein by this reference.

FINDINGS OF FACT:

The Planning Commission hereby adopts the findings in Staff Report dated August 8, 2019 (Exhibit 1) and the written and oral testimony submitted into the public hearing record as the basis for this decision.


CONCLUSIONS OF LAW

1. The burden of proof is upon the Applicant to prove that the proposal does fully comply with applicable ordinance criteria, Oregon State Statutes and Oregon Administrative Rules as set forth in CCZO Section 2.100(1) (a).
2. The Planning Commission finds that Exhibit 1, Findings of Fact and Conclusions and evidence and testimony presented at the hearing and submitted into the Record indicates that the Applicant has not provided sufficient information to make a determination to prove that the proposal does fully comply with applicable ordinance criteria, Oregon State Statutes and Oregon Administrative Rules.
3. The Planning Commission finds that the Applicant has not met the burden of proof to support approval of the proposed application for land based mining and processing of aggregate along the Pistol River.

NOW THEREFORE LET IT HEREBY BE ORDERED that AD-1907 a request for Conditional Use approval for land-based mining and processing of aggregate along the Pistol River on property located in the Forestry Grazing (FG) zone, and designated as Assessor Map Numbers as 3814-00, tax lot 4900 and 3814-19D, tax lot 200, in Curry County, Oregon filed by Ronald Adams, be **DENIED**.

This order in the **DENIAL** of AD-1907 was reviewed and approved by the Planning Commission on this 19th day of September, 2019.

CURRY COUNTY PLANNING COMMISSION


Dian St. Marie
Acting Chairperson

9/19/2019
Date


Becky Crockett
Planning Director

9/19/2019
Date

AD-1907 – Adams
Applicant Comments
Received 7-16-19

Attention: Becky Crockett, Planning Director

July 15, 2019

I would like to thank some of the opponents of my gravel permit, for their input. They point out my failure to put in supporting documentation for my claim concerning the water temperature, sediment and overall environmental issues, that have existed for many years. I would like to refer them to The Oregon Coastal Alliance, Kalmiopsis Audubon Society and Eleanor Foskett's input and referrals, look at the pictures as they do an awesome job of telling my story concerning the environmental issues in the river and the estuary about what is wrong with the fish habitat. Their referral to the 200/1 watershed's action plan supports my claim of long term need for something happening to help the endangered fish survival. Over the last several years I have spent more than one million dollars acquiring these properties, (that I don't even live on), so they can be restored.

I am the fifth generation of my family owning and living on Pistol River properties. I am not a gravel company if this permit is granted I will need to find a buyer for the gravel. I have not talked to anyone about selling gravel. I am sixty-eight years old. I know of no one that has made any kind of commitment as I have. I have made this commitment because if I don't it won't be done. Enough said about those issues. The primary issue is about gravel removal, which I believe is a necessary action to improve the estuary and that issue will be addressed by The Army Corp. and DSL as we go forward.

The Army Corp. has put in some stream bank rip rap to protect the Crook property which is directly across the river from my gravel removal site. The purpose of what the Army Corp. of Engineers did was not only to protect the river bank but also to create a deepening of the channel by washing the gravel off the bottom of the river and washing it up onto the gravel bar during high water. The water that was washed up during high water will be high and dry during low water periods. This gravel if not removed will, during the next high water period, put excessive pressure on the bank protection the engineers put in place and will cause the bank protection to be washed away.

I am proposing to remove the gravel from this site by scalping the river bar that is up away from the river. It is new gravel to the site, which means, it will be free of vegetation. I am proposing to scalp it, which will leave a smooth area without holes. When the next high water period comes the gravel I take should be replaced. At no time will I be anywhere near the water. From everything I have been told, unless the other agencies, that I need approval from, set all time records, I will be back for you to renew the permit before this permit ever gets used. If you approve this application, you will be giving me the green light, you will simply be allowing me to take the first step.

The issue about the river having to find a new way to the ocean if the passage under the bridge becomes blocked, is a real one. Whether this permit is issued or not will not fix this problem this year but I believe we have to start.

If you deny this permit, you will only be contribute to the paper shuffle and hoping it will fix itself.

Ronald Adams

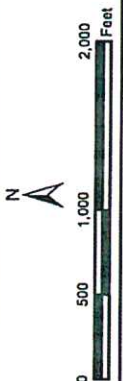
RECEIVED
7/16/19

Adams Ranch Pistol River



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri, China (Hong Kong), Swisstopo, Mapbox, and the GIS User Community

The information on this map was derived from digital databases on the Lane County regional geographic information system. Care was taken in the creation of this map, but is provided "as is". Lane County cannot accept any responsibility for errors, omissions or positional accuracy in the digital data or the underlying information. The information is provided for informational purposes only and is not confirmed with the appropriate agency. There are no warranties, expressed or implied, accompanying this product. However, notification of any errors will be appreciated.



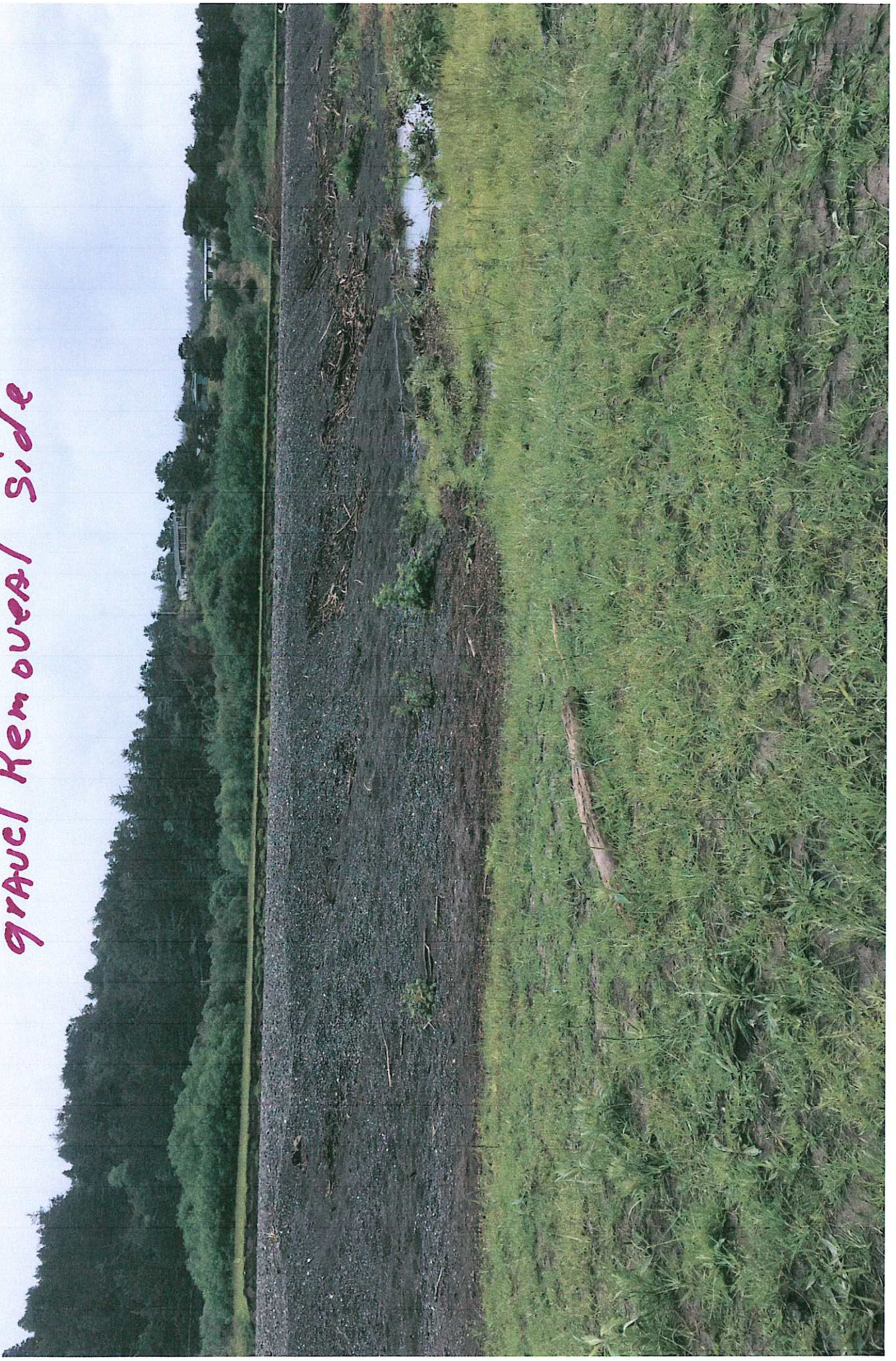
ArcGIS Web Map

Lane County, Oregon AD-1907 Adams

Adams Ranch Pistol River
South Side Looking North
Down River from Rip RAP



Adams Ranch Pistol River
North Side Looking South
gravel Removal Side



AD-1907 – Adams

**Comments during 14 day open
period.**

Closed 7-5-19 @ 11:59pm

Becky Crockett

From: Cameron La Follette <cameron@oregoncoastalliance.org>
Sent: Thursday, July 4, 2019 2:15 PM
To: Becky Crockett
Cc: Sean Malone
Subject: Additional ORCA testimony on AD-1907, Pistol Gravel Mining
Attachments: ORCA to Curry PC re Adams Pistol River Instream Mining add'l July 19.pdf

Dear Becky,

Attached please find the additional testimony of Oregon Coast Alliance in the application AD-1907, a proposal for instream gravel mining on the Pistol River. Please add this to the record, and let me know you received this email with the attachment.

Thank you,

Cameron

—

Cameron La Follette
Executive Director
Oregon Coast Alliance
P.O. Box 857
Astoria, OR 97103
(503) 391-0210
cameron@oregoncoastalliance.org
www.oregoncoastalliance.org

Sean T. Malone

Attorney at Law

259 E. Fifth Ave.,
Suite 200-C
Eugene, OR 97401

Tel. (303) 859-0403
Fax (650) 471-7366
seanmalone8@hotmail.com

July 4, 2019

Via email, Becky Crockett: crockettb@co.curry.or.us

Curry County Planning Commission
c/o County Planning Department
94235 Moore St.
Gold Beach, OR 97444
541-247-3228

RE: ORCA testimony on AD-1907, Conditional Use Application to Mine
for Gravel

On behalf of Oregon Coast Alliance, please accept this responsive testimony on AD-1907, a proposal to mine gravel under a conditional use application.

Here, the applicant is required to carry a significant burden. *See* CCZO 2.150(5)(a) (“The more drastic the change or the greater the impact of the proposal in an area, the greater is the burden on the proponent.”); *Oregon Coast Alliance v. Curry County*, __ Or LUBA __ (LUBA No. 2012-014, June 28, 2012). Here, it is unknown as to how much gravel is going to be extracted, as well as the manner in which the gravel will be extracted. There is also a failure to address water quality impacts, fisheries impacts, estuary impacts, and so forth.

Unfortunately, the application and staff report¹ contain such little information about the impacts of the proposal that it is simply impossible to understand, much less measure, them. There appears to be a complete and total abdication of the responsibility of the local government and its obligations to its constituents to apply the local land use regulations. The Curry County Zoning Ordinance (CCZO) requires that “[p]lans and specifications submitted to the Commission for approval must contain sufficient information to allow the Commission to review and set siting standards related to,” various criteria. CCZO 7.040(10). The County must evaluate the proposal against its own standards, and the County may not defer findings simply because the

¹ The staff report also mislabels much of the criteria under CCZO 7.040(10).

applicant has additional permits to obtain. Significantly, the County also may not defer findings to a time when the public can no longer comment.

Pursuant to the introductory language of CCZO 7.040(10), the application fails on all applicable provisions that require information on aspects of and impacts from the mining operation. CCZO 7.040(10)(a)(1) requires sufficient information on the “[i]mpact of the proposed use on surrounding land uses in terms of Department Environmental Quality standards for noise, dust, or other environmental factors.” As is typical of almost every requirement, the applicant has provided virtually no information about the impacts of the mining operation and the staff report simply alleges that criteria are satisfied based on the existence of state or federal permits. This is a rather disturbing trend in this application, and it entirely negates the existence of the local land use regulations.

Under CCZO 7.040(10)(a)(3), the applicant must submit sufficient information to allow the decision-maker to understand “[t]he impact of the proposed use on overall land stability, vegetation, wildlife habitat, and land or soil erosion.” Again, there has been a basic failure of the applicant to sufficiently carry its burden under this criterion.

The two criteria above should be consistent with the Pistol River Watershed Action Plan and the Pistol River Watershed Analysis (previously submitted). Almost half of the watershed is in private hands, and, therefore, compliance with land use criteria related to habitat and erosion from private lands that may affect species of concern must be consulted. The Watershed Analysis cautions that prior timber harvest and road construction have adversely affected the watershed. The applicant acknowledges vegetation and trees on the property, which will undoubtedly produce increased sedimentation if removed. Also of significant concern in the watershed analysis is sediment production, and it is clear that this proposal would increase sediment production and turbidity from the mining alone.

The Watershed Analysis counsels that the mainstem of the Pistol River provides both spawning and rearing habitat for fall chinook and winter steelhead. According to ODFW, the chinook run has declined about 70% since the late 1970s and has never rebounded; and the winter steelhead population have recently been proposed for listing as Threatened. Moreover, the Pistol River is on the 303(d) list as impaired for temperature from mouth to headwaters and is being investigated for flow modification and sediment concerns. Despite these well-known facts, there is a failure on the part of the applicant to address the impacts to this habitat from increased sedimentation, turbidity, and erosion. The applicant has not even begun to address other non-aquatic species, such as Threatened spotted owls or murrelets.

CCZO 7.040(10)(a)(5) requires that the applicant submit sufficient information for the “rehabilitation of the land upon termination of the mining activity. The proposed rehabilitation must at least meet the requirements of state surface gravel mining or gravel removal permits.” Again, as is the case with virtually all criteria, the applicant simply defers findings of compliance and relies on the state permit, without providing the public process provided here. This is unacceptable.

CCZO 7.040(10)(a)(7)(i) requires the consideration of whether the mining activity can be located on an alternative site. There has been no showing of any alternative sites.

Under CCZO 7.040(17), the applicant must assure the proposed use will not increase the cost to or risk of fire suppression or risk to fire suppression personnel. It is likely that the applicant will use gasoline, diesel, and other fuels stored on the property, but the applicant has not been forthcoming on this, as in all other aspects of the proposal.

For the foregoing reasons, and those set forth in earlier testimony, the application must be denied. The applicant, and the County, have both abdicated their responsibilities under County ordinance to provide information and analysis of the proposal to such a degree that the application cannot stand, and cannot be approved.

Sincerely,

A handwritten signature in blue ink that reads "Sean T. Malone". The signature is written in a cursive, flowing style.

Sean T. Malone

Attorney for Oregon Coast Alliance

Cc:
Client

Becky Crockett

From: MARIAN AND ELDEN TIDWELL <etmw1228@msn.com>
Sent: Wednesday, July 3, 2019 5:06 PM
To: Becky Crockett
Subject: Application AD-1907, Ron Adams

Dear Ms. Crockett

After attending the June 20, 2019 Planning Commissioners meeting, we strongly oppose Mr. Adams request for Approval for Mining and Aggregate Processing on the Pistol River.

Mr. Adams did not provide any information on the amount of gravel, what type of equipment would be brought in, how many truck loads and what weight would be on the road , and other information pertinent to this application.

This operation would have a negative impact on the wildlife that live in and around the river. The equipment and noise levels would also have a serious impact on the property values of our homes. Mr. Adams does not live near this site, therefore the operation would not affect him as much as those of us who live near the river.

The Pistol River is pristine and this operation could have a serious detriment. We ask that the council please vote not to approve this application.

Sincerely
Elden & Marian Tidwell
24120 Carpenterville Rd
Pistol River

Becky Crockett

From: Eleanor Foscett <ef0skett@hotmail.com>
Sent: Wednesday, July 3, 2019 10:42 AM
To: Becky Crockett
Subject: Request to Reject AD-1907
Attachments: Request to Reject AD-1907.pdf

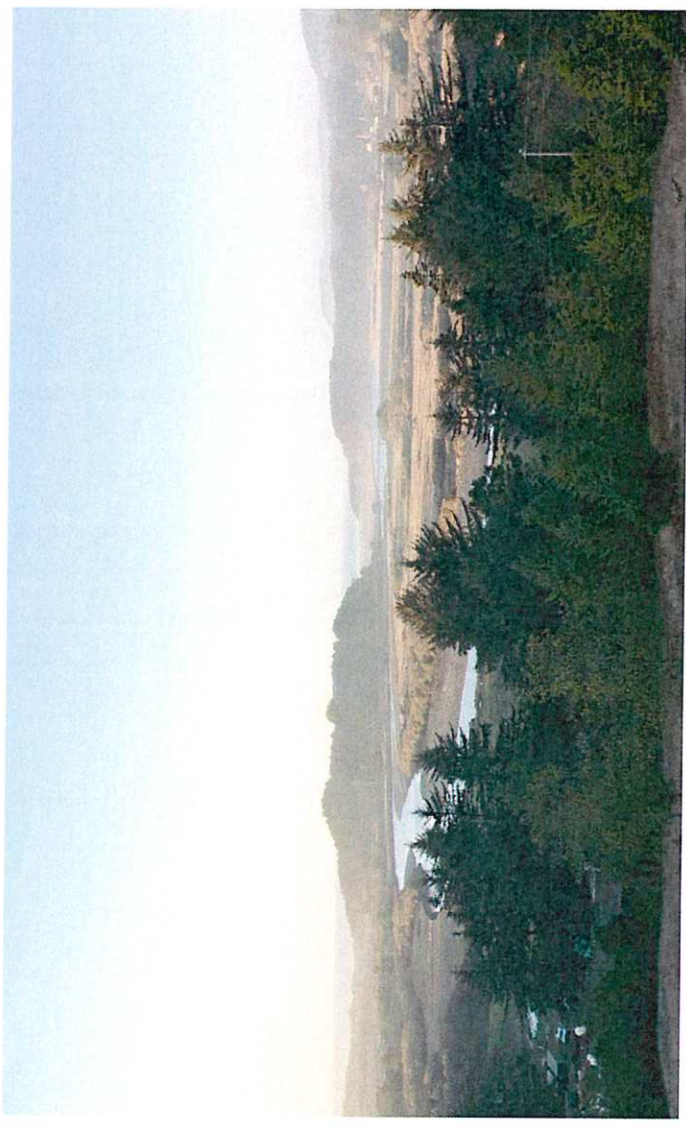
See attached document with my objections to any approval of AD-1907 and additional photos showing more specifics on impacted residences, etc.

Eleanor Foscett

Sent from [Mail](#) for Windows 10

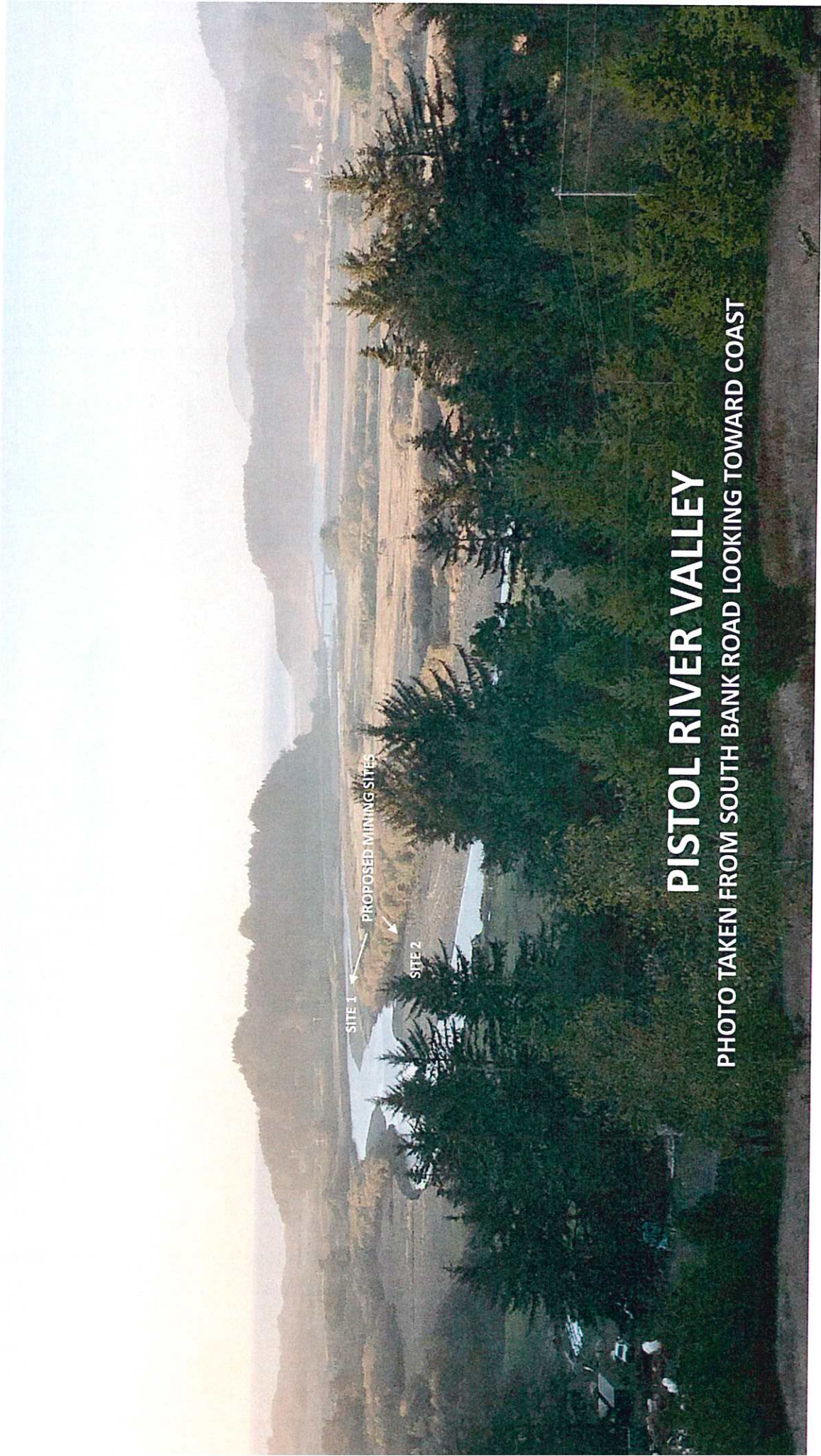
Request to Reject AD-1907 Pistol River Aggregate Mining and Processing Conditional Use Permit

Submitted by:
Eleanor Foscett
24299 Carpentryville Road
July 2, 2019



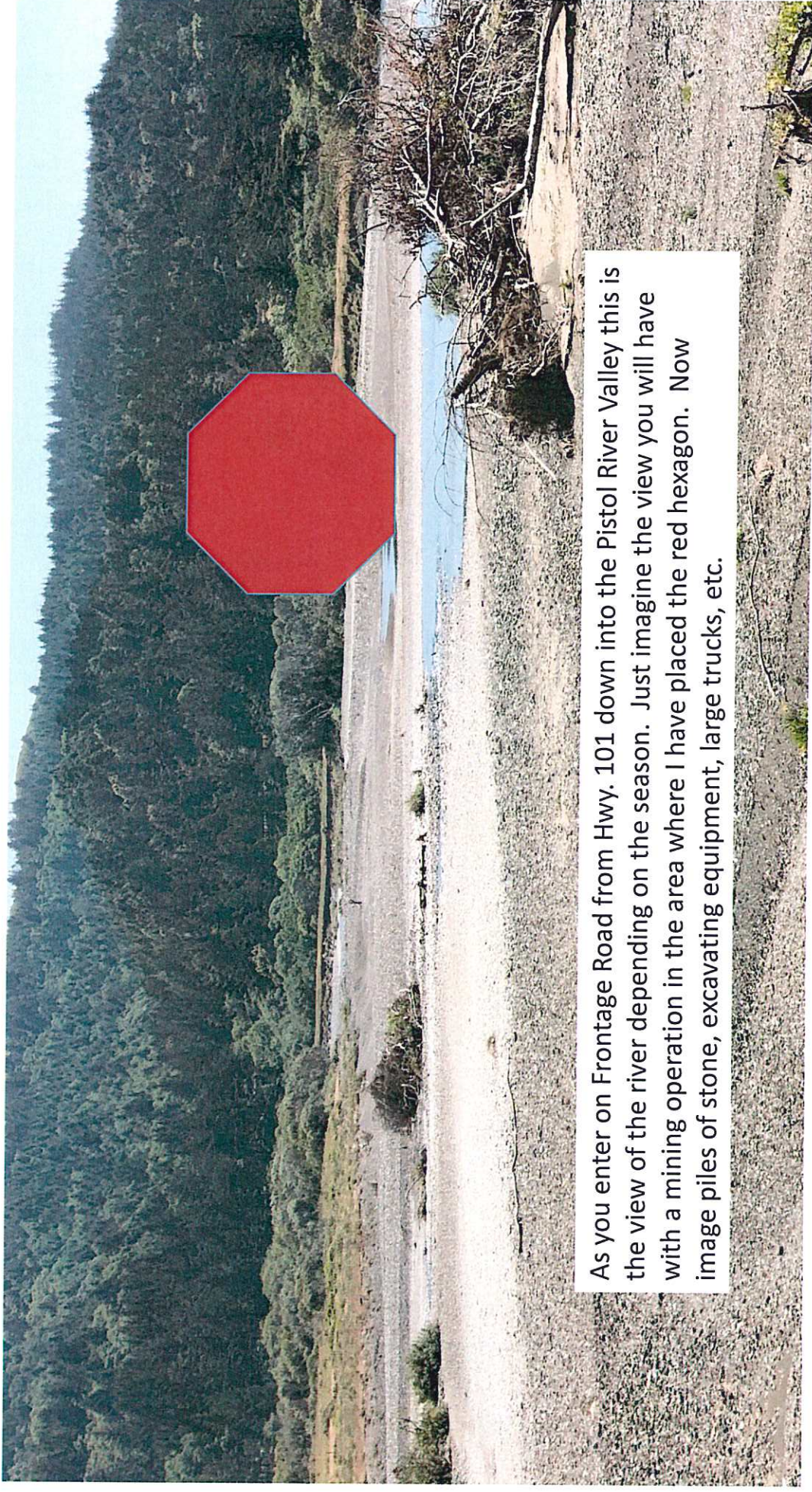
Request to Reject AD-1907 Conditional Permit to Mine & Process Aggregate in the Pistol River

- An unbelievably incomplete application was submitted by Mr. Adams. His document makes broad statements with no fact, evidence, or documentation to support them. This alone is reason enough for the Planning Commission to vote to reject this permit.
- During the hearing the applicant was unable to articulate a plan proposal defining operations, safeguards, equipment, mitigation of noise, dust, traffic, etc.
- Mr. Adams stated that he is trying to make the river better but demonstrated no knowledge of the environmental impact and devastation he could bring about for the river, fish, birds and other wildlife in the area for decades to come.
- There has been no regard for the residence or those visiting the Pistol River for recreational purposes. The impact of this operation will eliminate the serenity and beauty of the environment in our valley.
- And yes, there will be a financial impact to everyone here in Pistol River. Our property values will decrease, and the future sale of homes will be challenging. This operation will be a blight on the community. Plans place the operation directly in line of site as prospective buyers enter the Pistol River Valley.
- Attached you will find images that demonstrate proximity of mining operations to residences as well as a sampling of homes around the valley. There are many more homes that will be impacted. To see full impact of home placements review the lot maps available through the County offices.

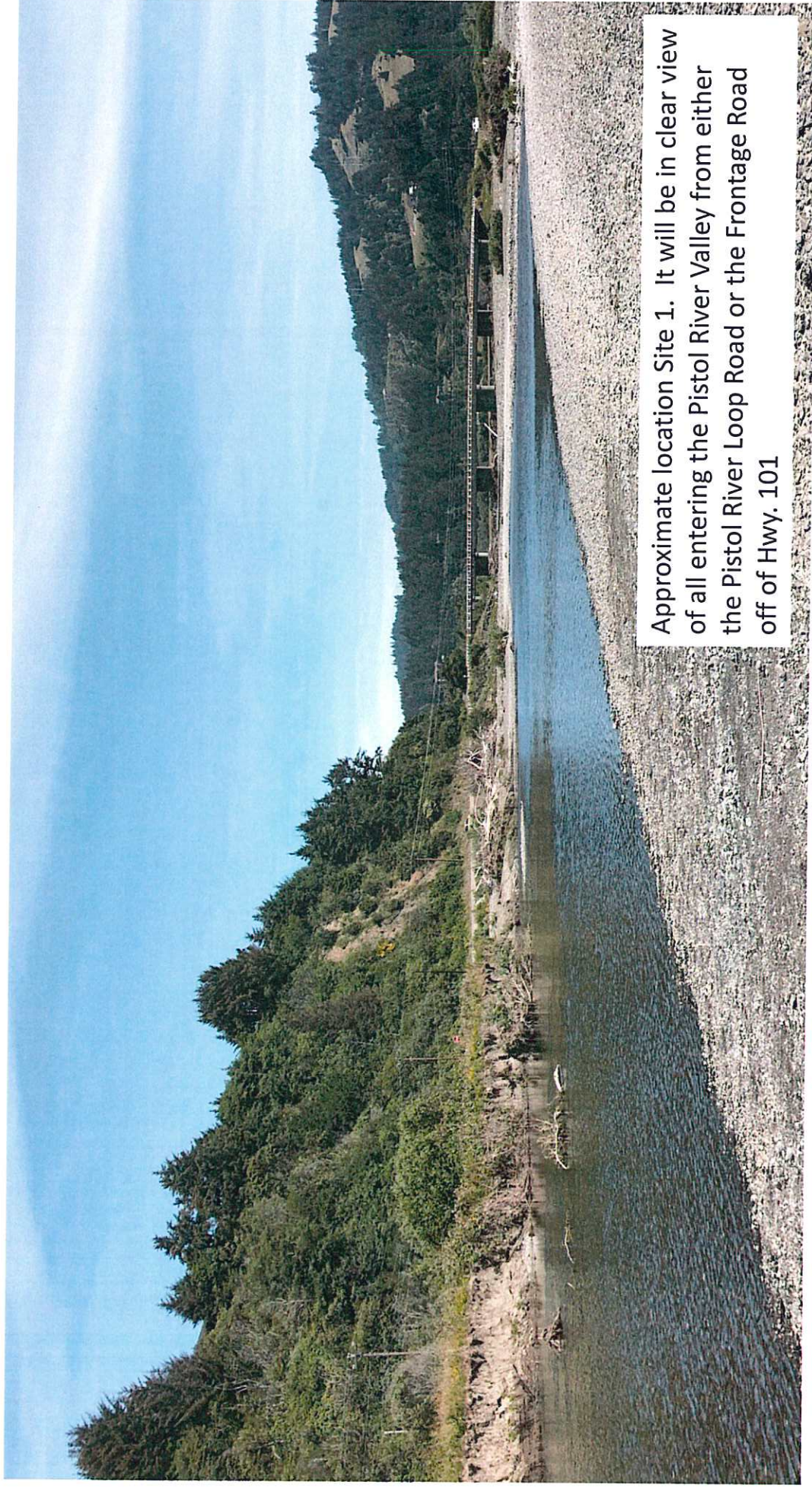


PISTOL RIVER VALLEY

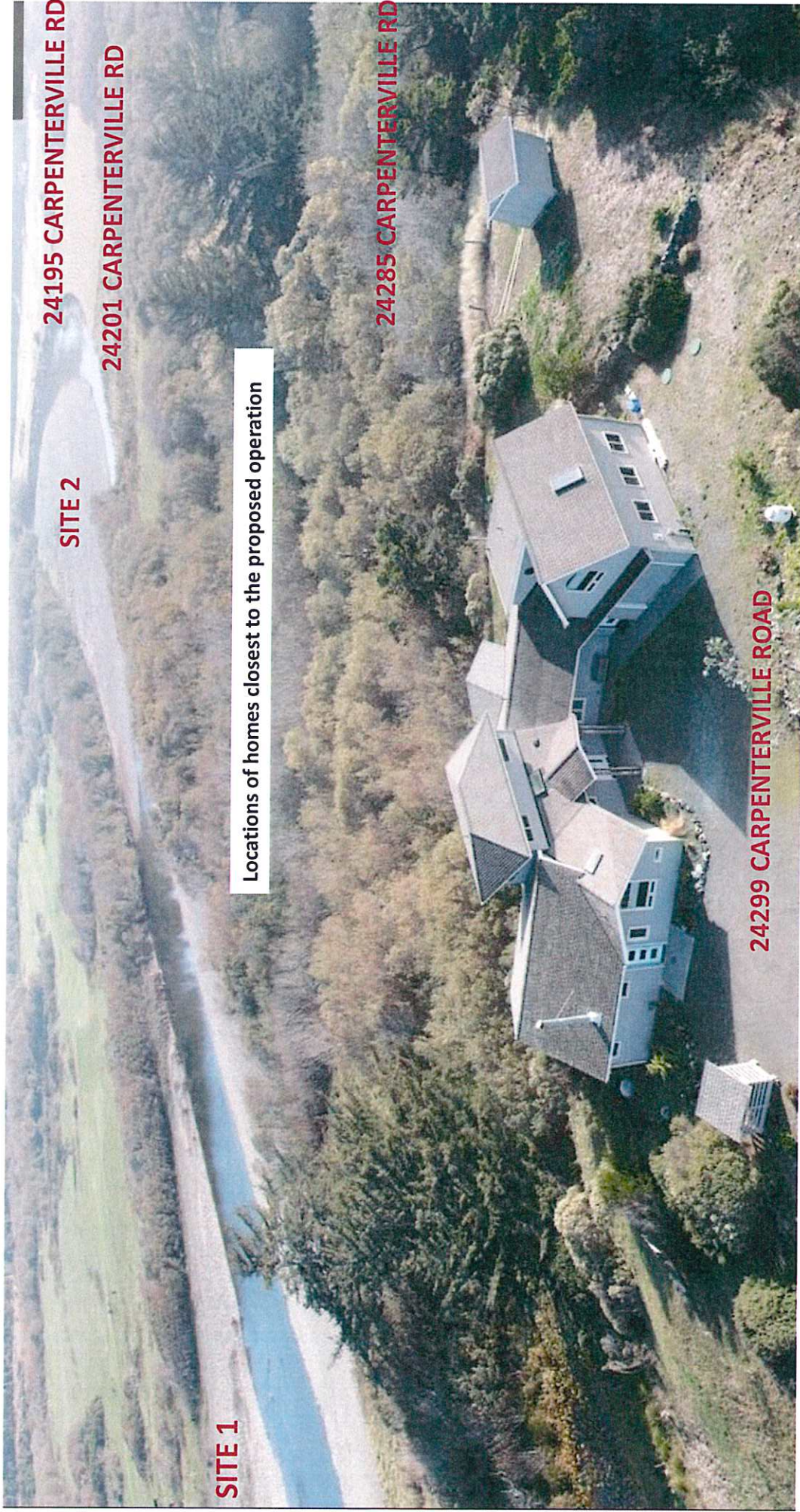
PHOTO TAKEN FROM SOUTH BANK ROAD LOOKING TOWARD COAST



As you enter on Frontage Road from Hwy. 101 down into the Pistol River Valley this is the view of the river depending on the season. Just imagine the view you will have with a mining operation in the area where I have placed the red hexagon. Now image piles of stone, excavating equipment, large trucks, etc.



Approximate location Site 1. It will be in clear view of all entering the Pistol River Valley from either the Pistol River Loop Road or the Frontage Road off of Hwy. 101



SITE 1

Locations of homes closest to the proposed operation

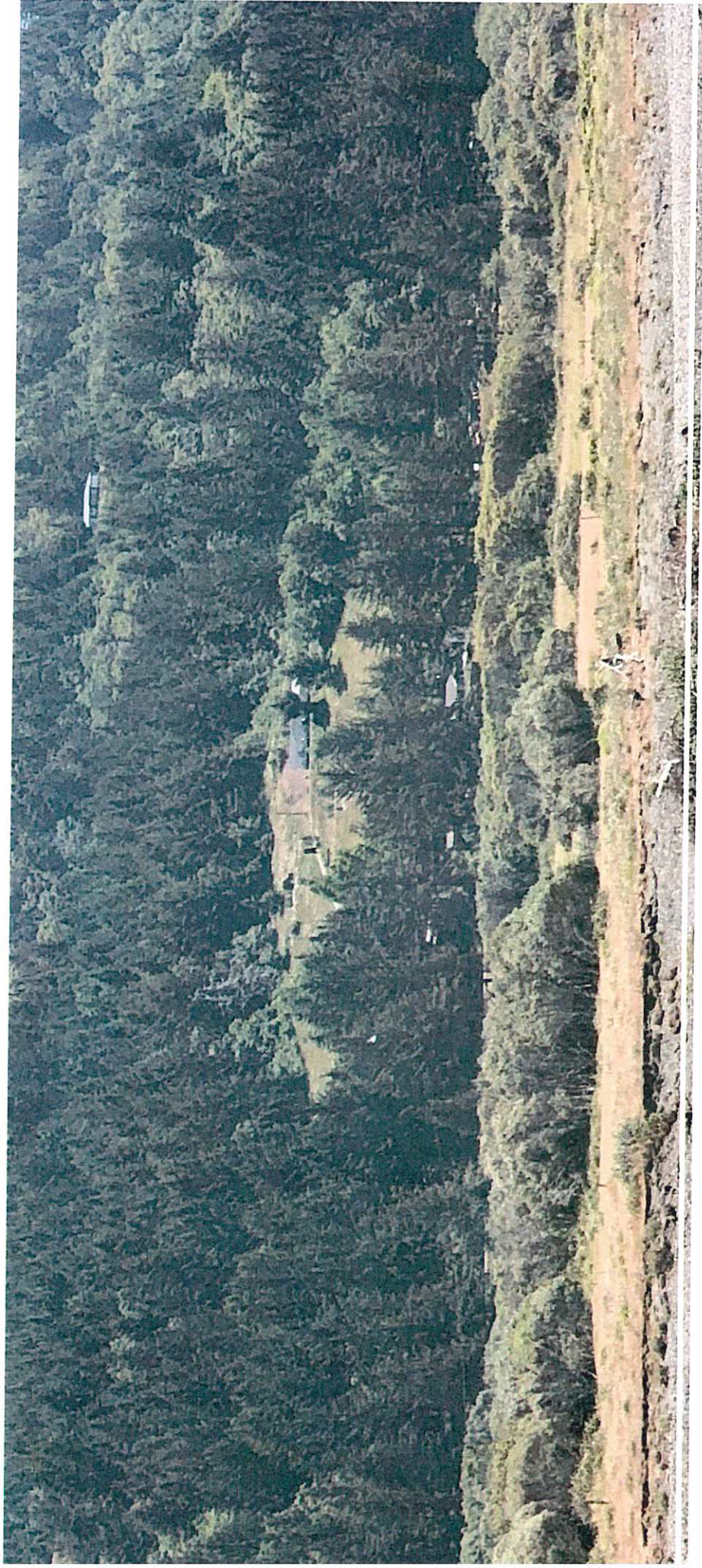
SITE 2

24195 CARPENTERVILLE RD

24201 CARPENTERVILLE RD

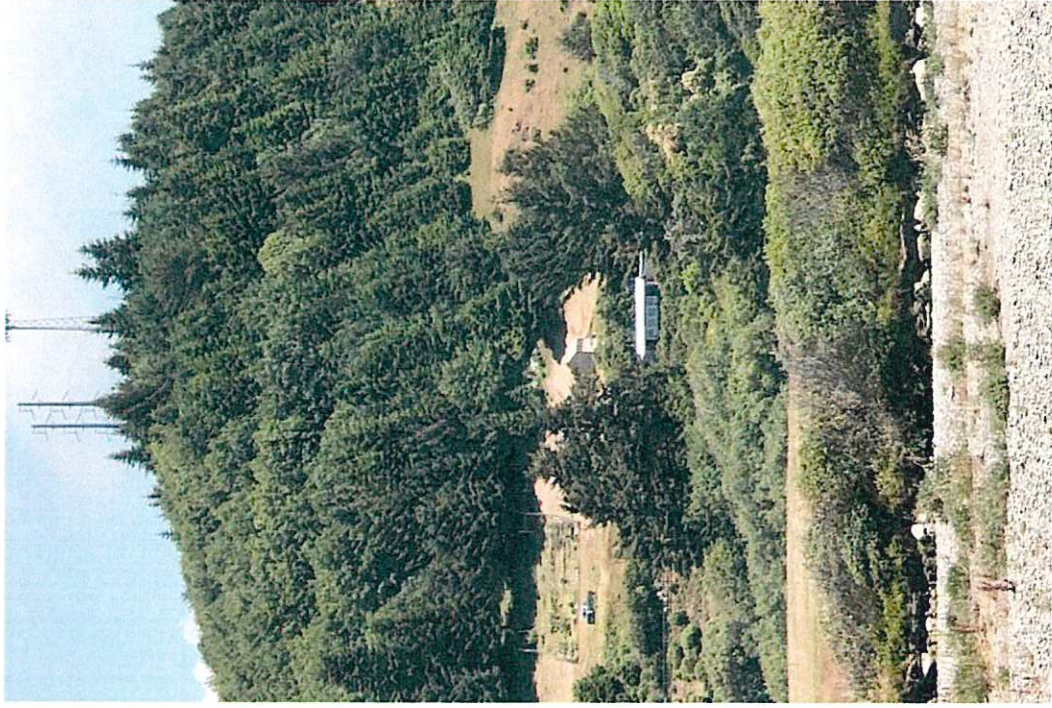
24285 CARPENTERVILLE RD

24299 CARPENTERVILLE ROAD



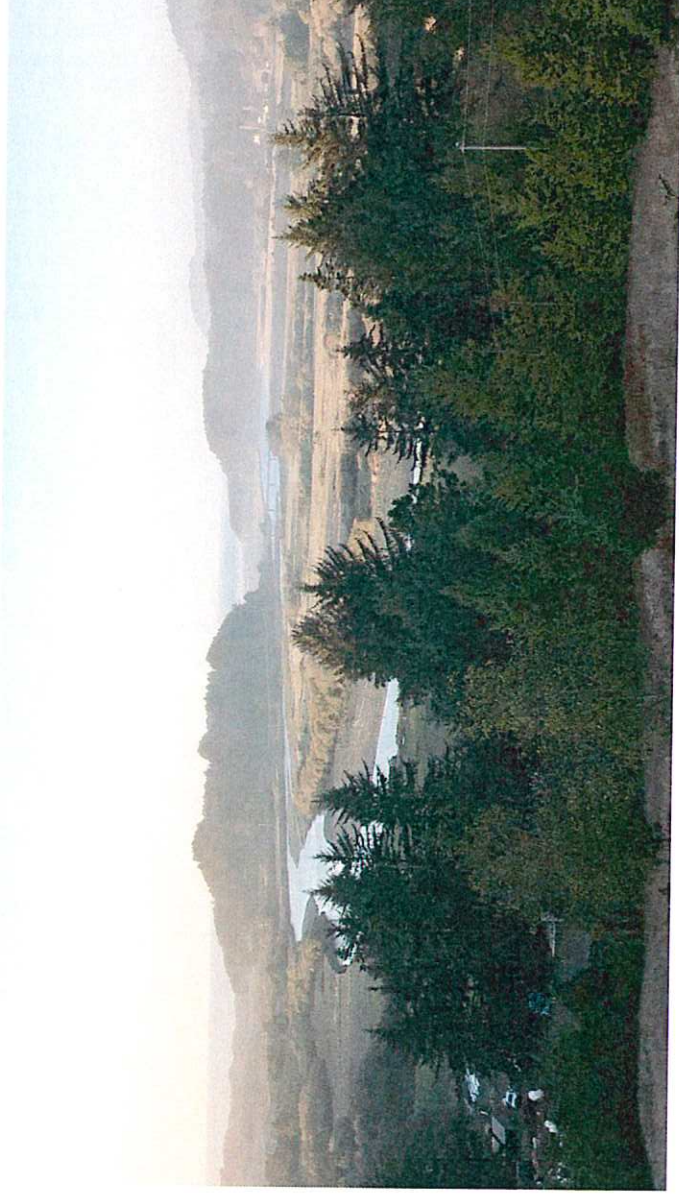
Homes dot the hills and tree line along South Bank Rd.





Homes along North Bank Road
close to the river

Reject AD-1907
It's the Right Decision for the Pistol River
and Our Community



Becky Crockett

From: vimla maharaj <vimlamaharaj@gmail.com>
Sent: Monday, July 1, 2019 3:56 PM
To: Becky Crockett
Subject: Re: AD1097 opposition

Hi Mrs Betty Crockett

I am Vimla Maharaj Banks of 94721 Scouts View, Pistol River OR 97444, 541-247-6240.

We are not in favor of disrupting the Pistol River with gravel excavation.

We have dealt with a similar scenario in 2003 with Tidewater. Extensive time, energy and money was spent on this and we are not in favor of this gravel excavation which Mr Ron Adams has requested.

Pistol River is one of the few areas which is a pristine environmentally and let us keep it that way.

Let's do what is best for this universe that we all live in and not selfishly for a few of our benefits.

Thanks for your time.

Vimla Maharaj Banks



Hand Delivered
after 6/20/2019
Hearing. *AF*

June 20, 2019

Becky Crockett, Planning Director & Planning Commission
Curry County Planning
94235 Moore Street Ste. 113
Gold Beach, OR 97444

Re: Conditional Use Permit for Gravel Mining in Pistol River Estuary - In Person Comments

Dear Planning Director Crockett and members of the Planning Commission,

My name is Mark Sherwood. I'm a resident of Pistol River and the Executive Director for the Oregon based non-profit the Native Fish Society. The goal of the Native Fish Society is to revive abundant wild fish, free-flowing rivers, and thriving local communities. Personally, I enjoy swimming, fishing, and boating on Pistol River and I can't wait to share this special place with my 4-month-old son.

The proposed mining site is located within Pistol River's 1.4 mi estuary. Estuaries are incredibly important habitats for fish - where marine and freshwater ecosystems mix with the rhythms of the daily tide. Pistol River is home to runs of Chinook salmon, steelhead and cutthroat trout. It is also home to Coho salmon protected under the federal Endangered Species Act. These fish swim to and from the ocean into Pistol River where they return marine-derived nutrients that make our trees grow and feed everything else in the forest, including our community members.

All the salmon and trout species I've mentioned use the Pistol River estuary and so this area of the river is highly regulated from development by Oregon's land use policies, the Clean Water Act, the Endangered Species Act, and is designated as Essential Salmon Habitat by the Department of State Lands to regulate removal-fill activities.

One of the reasons why estuaries are so protected is because their health has a direct impact on the abundance and health of our salmon. Salmon don't just zip through the estuary - they hang around to feed and prepare for the ocean. Juvenile chinook spend 3-4 months of the summer in these areas. Coho juveniles spend a year or more. Steelhead juveniles and cutthroat trout spend 1-3 years before they go the ocean. The success or failure of our adult salmon returns depends almost entirely upon what happens to them as juveniles in the estuary. As a result, gravel mining operations are not recommended in these areas and instead, moved to larger rivers and/or upslope onto terraces, inactive flood plains, and out of the channel migration zone.

This isn't just about fish hugging. Salmon are critical for our local commercial and recreational fishing economies. Curry County derives \$22 million annually of travel related expenditures from fishing and wildlife viewing in places like the Pistol River estuary. River and estuary health equals dollars for our

county.

What additionally, I believe is worth sharing with the Planning Commission is a quick review of what the Curry County Zoning Ordinances require before issuing a conditional use permit for mining, quarrying, or other extractive activity. Namely, that “plans and specifications that come before the Planning Commission must contain *sufficient information* to allow the Commission to review and set siting standards related to standards 1-9.”

When I review Mr. Adams’ application and the staff response, in particular to standards 1,2, and 3, which includes providing information on the impact to surrounding lands; water quality, water flows, fish habitat; overall land stability, vegetation, wildlife habitat, and land and soil erosion - it’s clear this application does not contain *sufficient information* for Commission review.

There is no empirical evidence of current environmental conditions provided. There are no studies referenced or undertaken to detail potential impacts and mitigation measures from gravel mining operations. Nor are there formal plans for when and how gravel extraction will occur. The application and staff report fail to even mention the word “estuary.” This application has been submitted without sufficient information to allow for the Planning Commission to provide the review our county zoning ordinance requires.

I strongly encourage the Planning Commission to deny the conditional use permit, unless the applicant can provide sufficient evidence for review, including proof that gravel operations will not harm fish, their habitats, and water quality.

Thank you for your time and your consideration of these comments.

Respectfully,

A handwritten signature in black ink, appearing to read "Mark Sherwood". The signature is fluid and cursive, with the first name "Mark" and last name "Sherwood" clearly distinguishable.

Mark Sherwood, Executive Director

**INDEPENDENT
MULTIDISCIPLINARY
SCIENCE TEAM
(IMST)**



State of Oregon

**John Buckhouse
Wayne Elmore
Stan Gregory
Kathleen Kavanagh
William Percy
Carl Schreck**

July 31, 2002

The Honorable John A. Kitzhaber
Governor of Oregon
State Capital Building
Salem, OR 97301

The Honorable Gene Derfler
Oregon Senate President
State Capital Building
Salem, OR 97301

The Honorable Mark Simmons
Oregon House Speaker
State Capital Building
Salem, OR 97301

This letter report addresses issues related to instream aggregate (gravel and sand) mining regulated by the Division of State Lands (DSL) in Oregon and how operations may affect salmonid habitat. Five general features determine the suitability of aquatic habitats for salmonids: flow regime, water quality, habitat structure, food sources, and biotic interactions (Spence et al. 1996). Habitat requirements vary by life stages and salmonid species. Spawning areas are selected on the basis of instream flow, water quality, substrate size (gravels), and groundwater upwelling. Embryo survival and fry emergence depends on substrate condition including gravel size, porosity, permeability, dissolved oxygen, substrate stability during high flows and water temperature. Instream aggregate mining (and placer mining) can directly impact salmonids by degrading and simplifying spawning and rearing habitats, increasing turbidity and decreasing substrate stability thereby influencing lower trophic levels upon which salmonids depend on for food (Spence et al 1996).

This report is narrowly focused to address the Independent Multidisciplinary Science Team's (IMST) technical review of the 1995 report released by the Oregon Water Resources Research Institute entitled "Gravel Disturbance Impacts on Salmon Habitat and Stream Health" as requested by former DSL Director, Paul Cleary (letter dated June 11, 1999). This request was a result of Governor Kitzhaber's Executive Order No. EO 99-01, Sections (3)(K) and (3)(I). The Executive Order directed DSL to 1) in conjunction with Oregon Department of Fish and Wildlife (ODFW), "consult with OWRC [Oregon Water Resources Commission] to determine where necessary to administratively close priority areas (including work under [DSL's] General Authorizations) to fill and removal activities in order to protect salmonids", and 2) "seek the advice of the IMST regarding whether gravel removal affects gravel and/or sediment budgets in a manner that adversely affects salmonids".

This report is organized to 1) present background information on the 1995 Oregon Water Resources Research Institute's report, 2) IMST's independent review of this 1995 report, 3) issues needing further consideration by DSL, and 4) specific recommendations to DSL, the State Land Board, ODFW, and the Core Team for the Oregon Plan for Salmon and Watersheds. This report does not include an in-depth examination of DSL's Removal-Fill Law or flood plain mining under the Department of Geology and Mining Industries' (DOGAMI) Mined Land Reclamation Program but rather a broader view of managing gravel as a resource and potential effects on salmonids.

Kondolf (1994) suggested that since floodplain mining pits can become part of the active channel, they should be viewed as being potentially instream when viewed on a time scale of decades. Loss of aquatic habitat may occur when river channels are captured by mining pits present in active flood plains. This has occurred during a 1997 flood on the Rogue River in Jackson County, Oregon (DOGAMI 2001) and has been documented in other areas of Oregon, California, Washington, and Alaska (Kondolf 1997, Dunne and Leopold 1978, Woodward-Clyde Consultants 1980). DOGAMI regulates floodplain mining and is also in the process of examining how floodplain mining operations can help provide off channel habitat for salmonids and other aquatic resources. Therefore discussions within this report may benefit both DSL and DOGAMI as they manage mined resources.

Oregon Water Resources Research Institute's 1995 Report

Senate Bill 81, section 101 (Fish Habitat) revised statutory requirements of ORS 196.810 (Removal-Fill Law) included requirements that 1) DSL require permits for any removal or fill activity proposed in *essential indigenous anadromous salmonid habitat* except for specific activities defined in the legislation, and 2) DSL conduct a study to examine the relationship between the removal of material from streams and stream health as it relates to carrying out the provisions in the Removal-Fill Law.

In 1993, in order to fulfill the second listed requirement, DSL entered into an interagency agreement with Oregon State University's Oregon Water Resources Research Institute (OWRRI) to conduct an assessment, which would:

- Examine the relationship between the removal of material (rock, gravel, sand, silt, or other inorganic material) from streams and stream health in support of essential indigenous salmonid habitat,
- Enhance DSL's knowledge of stream processes and impacts on salmon habitat for application to review of permit requests to remove gravel bars,
- Examine potential benefits and problems of gravel removal in streams, and
- Answer questions about gravel removal impacts on salmon habitat such as pool depths, sedimentation at spawning beds, stabilization, of riverine habitat, removal rate vis-à-vis recruitment rate, and channel and bank stability.

In 1995, OWRRI issued a report on this work entitled: *Gravel Disturbance Impacts on Salmon Habitat and Stream Health, Vols. I and II* (OWRRI 1995). The report made several recommendations (listed below) to improve management of removal-fill operations (nos. 1 and 2), to improve comprehensive management of removal-fill operations (nos. 3 -6), and for research activities related to removal-fill operations (nos. 7-9).

In this section we summarize each OWRRI recommendation and list actions taken by DSL, as determined through available reports and information provided by DSL personnel. The OWRRI (1995) recommendations were discussed with Ann Hanus, DSL Director, and John Lilly, DSL Assistant Director, at IMST's public meeting July 12, 2001. Comments from the discussion and ones prepared by Director Hanus after the meeting were used in revising summaries of DSL actions.

OWRRI Recommendation 1. Improve data collection related to removal and fill laws

1a. Conduct monitoring and research to evaluate impacts.

IMST Summary: OWRRI found no Oregon-specific studies to evaluate and/or monitor the environmental impacts of aggregate extraction or material filling. This lack of specific field data to support the removal-fill permit process hinders the goals of protection, preservation, and best use of water resources stated under ORS 196.805.

DSL Actions: DSL has significantly increased their compliance monitoring for commercial permits statewide and for recreational and small placer-mining in essential salmonid habitat and/or State Scenic Waterways. DSL is currently able to monitor about 10 to 15% of the active gravel removal permit sites per year; and about the same percentage of the total active permit sites. Gravel bar scalping/removal also has a required pre-harvest and post-harvest surveys and another survey the following spring to determine if enough gravel recruitment occurred over the winter to allow harvest to occur in the next season. They have not started any effectiveness or validation monitoring efforts.

1b. Improve DSL database capabilities and use.

IMST Summary: DSL needs to develop methods to document removal-fill activities and to incorporate this data into Geographical Information System (GIS) supported analysis. The present DSL data collection process is incapable of adequately monitoring removal-fill activities.

DSL Actions: DSL's corporate database called the Land Administrative System (Information Resource Management Plan), which includes new databases for removal-fill permits, complaints/violations and wetland mitigation, was initiated in late 1999. This system was designed with an active GIS interface. Reports from the system and remote access were addressed in 2000.

DSL received grant money to complete fisheries information in the Natural Heritage Data Bank, update and maintain the wildlife and habitat information, convert databases to GIS format, and provide assistance to watershed councils in accessing and using the database.

1c. Implement GIS-based resource management.

IMST Summary: DSL needs to fully implement a GIS-based resource management system for removal-fill activities. This system could identify areas of high resource use or permit application that are in essential habitats for sensitive, threatened, or endangered species. The system could identify reaches being aggraded or degraded, reaches and watersheds where sediment budgets show depleted gravel resources and poor re-supply from up-stream areas.

DSL Actions: DSL's Land Administration System (LAS) was designed with an active GIS interface. The agency has recently solved related hardware problems that were preventing frequent use of the GIS function. Staff training is planned to increase the GIS function of the LAS. In addition DSL is preparing to link other data sets (e.g. Oregon Natural Heritage Program) and some imagery. All Essential Salmon Habitat streams and Scenic Waterways are included as a GIS layer accessible from LAS.

1d. Allocate sufficient financial resources and staff to monitor resource abundance, condition, and use.

IMST Summary: DSL personnel often lack time for site visits to monitor and verify extraction amounts and environmental safeguards. Royalties from mining operations are not used directly for staff, but are transferred to the general school fund. A direct linkage needs to be developed between royalties and support of staff that monitor and issue permits for removal operations.

DSL Actions: The removal-fill program, including its wetland conservation component, is funded in part by gravel royalties and other revenues (including removal-fill permit fees) derived from the use of the State's waterways. The 2001 Legislature authorized the addition of two limited duration staff positions to assist in the waterway and rangeland management programs. DSL largely remains understaffed.

OWRRI Recommendation 2. Minimize additional degradation of salmonid habitat.

2a. Prohibit, regulate, or otherwise manage small operations.

IMST Summary: DSL should regulate small removal operations (less than 50 cubic yards) to prevent direct and indirect impacts to sensitive, threatened, or endangered species and their habitats.

DSL Actions: DSL revised its administrative rules governing issuance of removal-fill permits in spawning and rearing areas identified by ODFW as essential indigenous anadromous salmonid fish habitat (in 1996 the Land Board adopted the Essential Indigenous Salmonid Habitat Maps and Rules).

Permits are now required for operations removing or filling less than 50 cubic yards in these designated areas. Administrative rules were also developed regarding recreational and small-scale placer mining affecting less than 25 cubic yards in designated habitat areas under the Removal-Fill Law. Approximately 17,700 miles of streams (18% of the total stream miles) in Oregon were designated as essential salmonid habitat. Recent revisions increased stream miles to 17,917. The 1997 Legislature removed the artificial limit on Essential Salmonid Habitat designations (i.e. 20% of a waterway).

2b. Conduct removal-fill operations in a manner to minimize potential impacts on salmonid habitat.

IMST Summary: DSL should develop a manual-of-practice that records and describes successful methods to minimize impacts to salmonid habitats. DSL personnel should be regional experts in minimization of removal-fill impacts and they should have written documents that support and foster that expertise.

DSL Actions: Currently ODFW district biologists review all applications for various activities and DSL actively seeks their response as well as Tribe's and Watershed Council's. Similarly National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS) are notified and asked to comment on each application. Recommendations for project changes are taken to the applicant.

DSL developed Best Management Practices (BMPs) for commercial gravel removal in the Umpqua Basin in 1999. Commercial gravel removal BMPs for other basins state-wide and BMPs for other removal-fill activities are under development by DSL with the assistance of a multi-agency and stakeholder group. Completion of these BMPs was planned for 2001, but efforts were redirected to update removal-fill rules and completing a programmatic consultation with NMFS and USFWS on all federally-listed species in connection with obtaining a State Programmatic General Permit from the US Army Corps of Engineers.

2c. Allow bar skimming gravel removal under restricted conditions.

IMST Summary: DSL should conduct bar skimming under the following restricted conditions: 1) the gravel bar is not an active spawning, rearing, or feeding area for salmonids; 2) adequate gravel recruitment exists so that the bar is typically replenished each year; 3) berms and buffer strips be used to control stream flow away from the location of gravel removal; 4) gravel is removed only during low flows and from above the low-flow water level; and 5) the final grading of the gravel bar does not significantly alter the flow characteristics of the river at high-flows.

DSL Actions: All the points listed above are addressed through permit conditions. DSL limits gravel removal from individual bars to annual recruitment for all permits (requires pre- and post-harvest surveys and a follow up survey to determine if sufficient recruitment over the winter has occurred before scalping can continue the following season); the bar can not be scalped below the water line at summer low flows; and the bar must be graded to so it does not interfere with fluvial geomorphology. Instream work is restricted to periods specified by ODFW inwater-work timing guidelines.

DSL's planned review of whether limiting removal to annual recruitment provides adequate protection for fluvial geomorphology and other aquatic resources was referred to the IMST, per Executive Order 99-01.

2d. Restrict deep water dredging for gravel production to areas where presently practiced.

IMST Summary: Deep water gravel dredging represents significant and permanent alteration of stream bed elevations and should not be initiated at new sites or extended beyond its present application without extensive review because of the unknown long-term direct and indirect impacts of this practice may have.

DSL Actions: Deep water dredging is being restricted to existing sites on the Columbia, lower Willamette, and the Umpqua rivers.

2e. Do not allow a net loss of wetlands for all removal-fill operations.

IMST Summary: Preference should be given to the protection and preservation of natural wetlands over reconstructed wetlands resulting from mitigation. Careful monitoring over time should be used as wetland loss is often an unintended, insidious process. Wetlands produced from flood-plain gravel removal could be used to mitigate of necessary fill operations, thus providing incentive for the conversion of former gravel removal sites into functioning wetland systems.

DSL Actions: DSL has found that the regulatory program is an effective, but not a fully comprehensive tool to limiting wetland loss. The program does not regulate all activities that cause loss (e.g. projects in wetlands involving less than 50 cubic yards of material); and the replacement of lost wetland functions through mitigation is not always successful. The new rules now under public review require the establishment of a mitigation goal and success criteria as permit conditions. DSL's current rules require mitigation ratios greater than one to one for such activities as wetland creation (1.5 to 1) and wetland enhancement (3 to 1).

DSL is working with the Oregon Progress Board to establish a Benchmark for wetland loss in connection with regulated activities. DSL wetland program staff is also in the process of developing a hydrogeomorphic wetland and riparian assessment program for the State. This is a specific methodology for assessing wetland and riparian classification, function and values in a geographic context.

2f. Use biological streambank stabilization methods where possible.

IMST Summary: Biological streambank stabilization methods have improved in recent years and these methods should be recommended over riprap, concrete groins, or abutments because they provide benefits to salmonid populations including stream shading and generation of large wood.

DSL Actions: A DSL study in 1997-99 looked at erosion control projects in eastern and western Oregon. In areas sampled, riparian buffers, bioengineered treatments, bank sloping, etc. were conditions of the permits in a very high percentage of projects. The revised General Authorization for erosion control requires that most activities use bioengineering techniques. If riprap is to be used it must consist of clean, erosion resistant angular rock from an upland source.

OWRRI Recommendation 3. Improve present policy by the Burden of Proof of "no significant impact" shifting to permit applicants.

IMST Summary: Resources to clearly identify indirect impacts of removal-fill operations on specific salmon stock are not currently, and may never be, available. In the absence of a clear understanding of removal-fill impacts, salmonids and their habitats need to be conservatively protected. For those proposed activities that are projected to result in significant indirect impacts, it is recommended that the burden of proof of "no significant" impacts be sifted to the persons proposing the activity. Resource coordinators for DSL need to develop and adopt criteria that will assess which activities can be adequately regulated by "business-as-usual" approaches, and which ones cannot. It is proposed that all activities that cause a significant shift in streams away from natural habitat conditions be considered ineligible for the normal permitting process.

DSL Actions: DSL feels that the burden remains on the permit applicant/permittee to demonstrate compliance with the law, DSL's standards for project approval and/or the permit conditions, whichever is applicable.

The volume of work has grown three and half fold over the last 10 years (1989-1991; total permits issued = 717; 1997-1999: total permits issued = 2487) due to the robust economy and the results of several flooding events. The same increases have been seen in violation reporting and case resolution; compliance monitoring; wetland determinations and local wetland land use notices. As a result, DSL added five new positions since 1993-1995

Biennium and devised methods of permitting/monitoring (e.g. small scale placer mining general authorization; tidewater sediment removal general authorization). These efforts by the agency as well as other minor changes to the rules is their attempt to focus agency resources on larger, more complex projects while allowing the smaller projects with less impact to go through an abbreviated review and approval process if the applicants can clearly qualify their project to pre-set permit conditions.

OWRRI Recommendation 4. Do not allow gravel extraction from reaches of DSL-managed streams that support sensitive, threatened, or endangered species.

IMST Summary: Gravel extraction from reaches of DSL-managed streams that support spawning, rearing, and feeding of listed sensitive, threatened or endangered fish species (salmonids or others) should not be allowed. In addition, it is recommended that this restriction be applied to streams that support chum or coho salmon because of their seriously declining populations. The severity of the population declines and the lack of definite information regarding potential impacts of removal-fill operations make this the only reasonable and prudent approach to responsible management of these populations.

DSL Actions: DSL maintains that their database shows that during 1997-99 a total of 690 authorizations were issued for removal-fill work within Essential Salmonid Habitat (ESH) streams; of these 690 authorizations over 400 were for small scale placer mining or fish habitat enhancement. Less than 25 authorizations were for any activity associated with gravel extraction. In 1999, the Land Board increased the ESH stream miles from approximately 4,500 river miles to approximately 17,600 river miles. DSL feels that given the number of approved activities, the level of activity and the operating conditions imposed by the permit on these activities, the impacts have been mitigated or are within an acceptable range.

DSL had about 65 active sand and gravel extraction operations currently under permit on waterways such as the South Umpqua, Willamette, Columbia, Chetco, and Rogue Rivers. Almost all operations are bar scalping; the Umpqua, Willamette, and Columbia are typically deep water dredging.

OWRRI Recommendation 5. Do not allow gravel extraction from reaches of DSL-managed streams that are part of aquatic diversity areas or support source salmon populations.

IMST Summary: Gravel extraction should not be allowed from DSL-managed rivers and streams that support the best remaining examples of aquatic biodiversity and salmon populations. These areas have decreased substantially due to development, yet are significant baseline representations of healthy ecosystems and can be used to measure the impacts of activities such as gravel disturbance.

DSL Actions: Response is similar to that listed with recommendation 4. DSL adds that the location of aquatic diversity areas or reaches that have been identified as source salmon areas are not currently data layers in the agency's GIS system. DSL is reviewing ODFW's recent work on the designation of "anchor habitat areas" to determine: (1) how the designation fits with the DSL's Essential Salmonid Habitat areas; and (2) whether or not there is a need to amend removal-fill permit program rules to require greater consideration to regulated activities within these areas.

OWRRI Recommendation 6. Promote recycling efforts.

IMST Summary: DSL should work cooperatively with the Department of Geology and Mineral Industries (DOGAMI), Department of Environmental Quality (DEQ), and the Department of Transportation (ODOT) to encourage aggregate recycling to decrease the demand for stream gravel resources.

DSL Actions: DSL finds that this recommendation concerns activities that are beyond their ability to carry out. The promotion of sand and gravel recycling efforts is more appropriately the responsibility of the larger aggregate users such as ODOT and DOGAMI.

OWRRI Recommendation 7. Develop plans to increase gravel availability.

IMST Summary: Nearly all current removal-fill activities in Oregon's streams result in a decrease of streambed gravel. While gravel removal is increased or maintained, gravel production from upstream sources is often reduced through erosion control activities. Coupled with large-scale flood-control projects that reduce upland flooding, erosion, and bed-load transport, the availability of gravel in-stream is clearly declining.

DSL Actions: We found no indication that this issue is being addressed by DSL or any other agency. To accomplish this DSL would have to coordinate with other agencies that have regulatory authority over flood-

control projects and upland areas. DSL finds that this recommendation concerns activities that are beyond their ability to carry out.

OWRRI Recommendation 8. Develop strategies to increase salmonid and aquatic habitat.

8a. Develop methods to convert former flood plain gravel pits into productive habitat.

IMST Summary: Lakes and ponds resulting from floodplain gravel operations may represent a valuable resource for the creation of aquatic habitat. DSL needs to work cooperatively with the gravel mining industry and local planning authorities to develop efforts to re-establish and restore these areas for aquatic habitat. Pilot projects should be initiated to demonstrate best methods of development and the advantages and disadvantages of specific approaches.

DSL Actions: DSL is conducting a pilot study funded by a surcharge assessed to gravel operators on the mainstem Willamette to assess the viability of connecting two former gravel pits (Truax and Endicott Lakes) to the mainstem.

8b. Use gravel mining as a potential method for developing wetlands, off-stream channels, lakes and ponds, and potential salmonid spawning beds.

IMST Summary: DSL should develop resource maps of old stream channels in flood plains that contain economically-recoverable quantities of gravel. Cooperative ventures could be developed so that portions of the gravel can be removed to form wetlands, channels, lakes, ponds, and spawning areas. DSL and DOGAMI should develop cooperative plans to facilitate permit applications for such efforts.

DSL Actions: This has not yet been done.

OWRRI Recommendation 9. Ensure compatibility of policies with existing watershed initiatives in Oregon.

Summary: DSL needs to develop a watershed approach to management of gravel resources and this effort should be coordinated with other state watershed programs. DSL policies should not erode options of future watershed initiatives nor create conditions requiring subsequent restoration. Removal-fill operations must be consistent with these watershed programs to ensure efficient use of public funds.

DSL Actions: This recommendation is being approached, in part, through DSL's involvement with the Oregon Plan for Salmon and Watersheds.

IMST's Independent Review of the 1995 OWRRI Report

The IMST conducted an independent review of the OWRRI (1995) report and found it to be technically sound. We endorse the report and the recommendations included. The work for this report was conducted prior to the implementation of the Oregon Plan for Salmon and Watersheds (Oregon Plan) and the IMST.

As part of the IMST's discussions regarding the report, we found it pertinent to determine what DSL has done to address the OWRRI recommendations. Several of the OWRRI recommendations have been addressed, some were incorporated into DSL's tasks under the Oregon Plan and actions were documented in Oregon Plan Implementation Reports (Oregon Plan 1998, 2000a, and 2000b; available at <http://www.Oregon-Plan.org>), and a few have not been addressed for various reasons listed with the recommendations in the previous section.

After examining actions taken by DSL to address the OWRRI recommendations and tasks listed in the Oregon Plan, the IMST finds that DSL still manages site specific actions and has not incorporated landscape management into its regulation of permits under the Removal-Fill Law and General Authorizations. Key issues that need to be addressed by DSL and its administrative board, the State Land Board, are channel morphology, bedload transport rates and sediment budgets, cumulative effects, and effectiveness monitoring. These areas are necessary to move the agency from managing individual site-specific activities to managing activities as part of the landscape. We see these as important to salmonid recovery. In the following section we add

additional technical information on these four areas that was not available at the time the OWRRI (1995) report was written or not sufficiently covered by that report.

1. Channel Morphology

The size and shape of a stream or river channel reflects its prevailing flow and sediment load (Kondolf 1994). Meador and Layher (1998) summarized conclusions from an American Fisheries Society Symposium concerning the effects of instream sand and gravel mining. Instream mining typically alters channel geometry, including local changes in gradient and width-to-depth ratios. Point-bar mining increases stream gradient by effectively straightening the stream during floods. Thalweg relocation can occur when flooding connects the stream to floodplain aggregate mines. Local scouring and erosion can occur as a result of increased water velocity and decreased sediment load associated with aggregate mining. Changes in channel stability can also cause a loss of riparian vegetation (Kondolf 1994).

Channel bed incision can occur upstream or downstream from a mining operation (Kondolf 1994). Upstream progression of channel degradation and erosion can occur (also called headcutting) causing dramatic changes in a stream and channel that can affect instream flow, water chemistry and temperature, bank stability, available cover, and siltation (Meador and Layher 1998). Channel incision can lower alluvial water tables and affect riparian vegetation (Kondolf 1994). Other documented effects of gravel mining include bed coarsening, the loss of small gravels and an increase in larger particles (Kondolf 1994).

The premise that instream aggregate mining sites can be replenished without affecting the channel may ignore downstream bed load requirements for channel maintenance and the complex physiochemical and biotic responses to changes in bed load (Meador and Layher 1998). The majority of the bedload in a river is transported during high flows, particularly floods. Multiple factors can slow water velocity in streams and rivers including decreasing gradient, widening of the channel, and friction of transporting bedload across the streambed. In cases where the bedload is lost upstream due to replenishing mined gravel bars or being trapped behind dams, water velocity does not decrease as quickly and as a result the water picks up sediment and new bedloads by eroding banks and removing gravel from other deposits including downstream gravel bars and salmonid spawning beds. Kondolf (1997) has referred to this situation as "hungry water". Therefore, significant negative changes can occur in channel morphology and aquatic habitat downstream from an instream mining operation.

2. Bedload Transport and Sediment Budgets

DSL does not monitor the actual amount of gravel (cubic volume/operation) or other aggregates removed by instream mining operations, rather it is assumed that the amount removed is less than the amount permitted. The actual harvested volume of a resource is an important determination for any natural resource. With instream aggregate mining a distinction must be made between the total volume removed and replenishment rate (cubic volume replaced/time) (Dunne et al. 1981). The location and form of a gravel bar may be determined by constraints such as bedrock outcrops or other features that control local reach hydraulics, which induces deposition in the same site year after year. Therefore the replenishment rate and abstraction rates must be determined so as not to disrupt the site or the channel downstream (Dunne et al. 1981). In some rivers, large gravel bars may simply indicate long-term deposition rather than a rapid supply rate. In other systems a gravel bar

may be a persistent feature from year to year, but the actual gravel particles may be eroded and replaced every few years with new particles transported from upstream (Kondolf 1994).

Unless viewed within a geological timeframe, gravels are not a renewable resource. The floor of the Willamette Valley consists of thick layers of late Pleistocene and Holocene alluvium that covers all but a few areas of pre-Tertiary rock from Portland to Eugene (Orr et al. 1992). The gravels and sands mined in streams and flood plains were laid down from erosional deposition and glacial outwash from the western Cascades as well as from a series of catastrophic Pleistocene floods from Montana that scoured eastern Washington and Columbia Gorge into what is now the Willamette Valley (Orr et al. 1992). Gravels and other sediments are temporarily stored within river systems in gravel bars, floodplains, and terraces. Klingeman (1987) identified major natural influences on sediment transport including the river's recent geological history, meandering, natural streambed armoring, constraints on bedform development due to natural channel constrictions, and the presence of bedrock outcrops and old cemented gravels. Changes in land uses, bank stabilization, gravel mining activities, and upstream dams may alter sediment transport and supply rates.

The transport of sediment (suspended and bedload) through a river system is continuous on a geological scale but only episodic on a human time scale (Kondolf 1994). Sediment transport occurs as a power function of flow discharge meaning that high flows transport proportionally greater sediment loads than moderate flows (Kondolf 1994). The rate of bedload transport depends on the supply of coarse material from the watershed and the transporting power of the river, which varies over time and space (Kondolf 1994). Gravels and larger particles are mainly transported by high flows and floods. Therefore, annual variations in precipitation, high flows, and flood frequency and magnitude will affect sediment transport. Dams and impoundments can alter the amount of sediment moving through river system by altering high flows and by trapping sediment behind impoundment structures. Therefore, dams interrupt the transport of gravels and decrease the gravel supply to downstream reaches.

A sediment budget is an accounting of sediment sources, rates of sediment flux (quantity and transport) through the stream or river system, losses to or gains from temporary sediment storage reservoirs (such as gravel bars or floodplains) and loss by export from the basin (such as mining or movement to the ocean) (Dietrich and Dunne 1978 as referenced in Kondolf 1994). A sediment budget can typically indicate if exploitation rates approach or exceed annual transport through a mined reach. Studies in Washington's Olympic Peninsula have shown that gravel extraction rates exceeded replenishment rates by more than 10 fold and caused bed incision (Collins and Dunne 1989). In California, a study on gravel mine extraction rates before and after the construction of a dam showed that extraction rates before the dam were 10 times greater than the sediment supply to the reach, but after dam construction, extraction rates were 50 times greater than rate of bedload supply (Kondolf and Swanson 1993). The effects of the mining and sediment trapped behind the dam resulted in the channel incision and lateral migration in the mined reach, and increased erosion rates downstream to regain some of the lost sediment load in the stream flow (Kondolf and Swanson 1993).

Methods for determining bedload and transport rates and sediment budgets are discussed in detail in NCASI (1999) and Collins and Dunne (1990), respectively. The methods used will depend on the nature of the river/stream system and departmental resources. Different

methods could be used on different streams. Both the above publications (as well as others) discuss the pros and cons of the different methods.

3. Cumulative Effects

The Oregon Plan does not define cumulative effects although it does make several references to the necessity of determining cumulative effects particularly for water quality. Cumulative effects have been defined by the National Environmental Protection Act (NEPA) of 1969 as:

The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Fish habitat consists of a wide array of physical, chemical, and biological conditions. Modifications to fish habitat occur along geographic, temporal, and activity-related spectrums (Burns 1991). A geographic spectrum ranges from site-specific to global. A temporal spectrum ranges from instantaneous to long-term, and an activity-related spectrum ranges from a single act to multiple complex actions. Cumulative effects contain elements within all three spectra. Because environmental impacts accumulate over time and space, analysis is difficult (Riser 1988).

From a state agency perspective, cumulative effects should take into account the past and present activities they have regulated and activities regulated by other agencies (State, Federal, and local), as well as known unregulated activities within a given watershed. By knowing which activities are occurring, which ones may interact with DSL's regulated activities, and to what extent they may affect aquatic resources, the agency can make professional judgments on limiting and mitigating cumulative impacts to salmonids and their habitats. Within DSL's program, the agency needs to take into consideration, commercial aggregate mining, recreational placer mining, fill operations, stabilization of eroding stream banks, permanent and temporary dams in addition to activities they do not permit but may have effects on stream processes and functions. This can be done on a reach scale and, eventually, a basin scale.

In their draft Biological Assessment, DSL states that:

Since DSL authorizes activities on a statewide basis over a prolonged period of time, we cannot predict with precision all of the direct, indirect, and interrelated/interdependent effects that may be associated with each action, either individually or cumulatively. Adverse effects will be minimized by the terms and conditions DSL places on each state Removal-Fill permit or letter of authorization (DSL 2000; page 36).

In addition they state:

Cumulative effects will depend on the types and numbers of permits issued. DSL permit statistics from the 97-99 Biennium, provided under Determinations of Affects under the Federal Endangered Species Act, by Species, will be used as a surrogate (i.e., representative sample of the range

and intensity of adverse affects for all types of removal-fill permits expected to be issued for the next five years (DSL 2000; page 38).

Cumulative effects will vary with the type of permitted activity. However, the IMST finds no scientific basis for permit statistics to be used as a surrogate for evaluating cumulative effects. The cumulative effects must be assessed or predicted first and then related to the number and types of permits issued for a given time period and geographical area. Without establishing this information on cumulative effects DSL, can not reasonably meet the goals of the Oregon Plan, properly address and modify best management practices, or protect and maintain sustainable aquatic resources across the landscape.

The Council on Environmental Quality (1997) has laid out a process for analyzing cumulative effects under NEPA. Those steps include: 1) scoping, 2) describing the affected environment, and 3) determining the environmental consequences. The Council found that scoping is the key to analyzing cumulative effects as it provides the best opportunity for identifying important cumulative effect issues, setting appropriate boundaries for analysis, and identifying relevant past, present, and future activities. In the case of removal and fill activities, DSL should document what other major activities have occurred (since EuroAmerican settlement when possible) and are occurring in a given reach or basin, how they are perceived to affect the aquatic environment (based on the best available science) in the absence of proposed activity and how they may interact with the proposed activity.

4. Monitoring

Monitoring provides accountability by reducing uncertainty about whether or not management decisions were properly implemented (compliance or implementation monitoring), whether management objectives of protecting and recovering salmonids and their habitats are being achieved (effectiveness monitoring), and whether the management actions taken explain the changes (validation monitoring) (Independent Science Panel 2000). Adaptive management based on monitoring is the foundation for reducing uncertainty in managing ecological systems (Independent Science Panel 2000).

Monitoring conducted by DSL is restricted to monitoring permit compliance, which is documented in their biennial reports (DSL 1997, 1999, and 2000). Since the 1995 OWRRI report and the implementation of the Oregon Plan, DSL has substantially increased their compliance monitoring (OWRRI (1995) Recommendation 1). This type of monitoring is activity specific and often relies on the permit holder to provide information. For example, permit holders of bar scalping operations are required to conduct pre-harvest and post-harvest surveys of the bar they are mining. This process does not include independent verification by DSL or ODFW unless more than one year has elapsed between harvests.

DSL's monitoring program also does not include areas further downstream or upstream of permitted operations, which may be undergoing channel morphology or habitat changes due to mining operations or erosion control measures. Compliance monitoring alone does not provide sufficient information for the agency to determine if best management practices or permit conditions need to be modified in order to protect riparian and aquatic resources. This can only be accomplished through effectiveness monitoring linked with adaptive management.

Effectiveness monitoring asks the basic question: Was the action (e.g. permit conditions, restoration) effective in attaining or maintaining the desired future conditions and in meeting

objectives (Kershner 1997)? Effectiveness monitoring is more complex than compliance monitoring and requires longer time frames and understanding of the physical, biological, and sometimes the social factors that influence aquatic ecosystems (Kershner 1997). As we mentioned earlier, DSL stated in their draft Biological Assessment that "Adverse effects will be minimized by the terms and conditions DSL places on each state Removal-Fill permit or letter of authorization" (DSL 2000; page 36). Under an effectiveness monitoring program, questions that could be addressed are:

- What are the possible adverse effects to salmonids and their habitat that could be caused by permitted activities?
- Are the adverse effects minimized by the terms of a permit and to what degree?

As part of adaptive management the next steps would include:

- Based on monitoring data analysis and interpretation determine which permit conditions are contributing to the degradation of salmonid habitat, channel morphology, and/or aquatic and riparian ecosystem function.
- Determine how those permit conditions could be modified based on the monitoring information.
- After the permit conditions are modified, continue monitoring, evaluation, and modifications in management.

The Independent Science Panel (2000) outlined the necessary elements for a successful monitoring program in an adaptive management context. These elements were used to help create scientifically credible programs and more information can be found in their report.

1. Monitoring should be based on a set of clearly articulated goals, objectives, or questions that need to be addressed,
2. The statistical designs are appropriate,
3. Indicators and variables are based on needs defined by objectives and the appropriate geographical, temporal, and biological scales,
4. Monitoring protocols are standardized to allow comparison among locations, times, or programs,
5. Programs are in place for quality assurance and quality control of the data,
6. Data are managed to allow easy access and coordination among different collaborators,
7. Funding is stable and adequate to allow planning and implementation of sustained long-term efforts, and
8. The information is analyzed and integrated into decision-making.

Conclusions

The Division of State Lands approaches instream mining from an operation (or project) management perspective instead of from a resource management perspective that includes spatial and temporal aspects. Application of the Removal-Fill Law and General Authorizations are done on a site by site basis through individual permits. A paradigm shift needs to occur to shift this

management procedure to one of managing a resource on a basin scale. Gravel as an extractable resource is regulated by two separate agencies, instream mining is regulated by DSL and floodplain mining is regulated by DOGAMI. Within stream and river systems, floodplains and channels are connected and do not function independently of one another. This separation in thinking maintains site specific management approaches. The IMST advocates managing resources from a landscape perspective, which in the case of gravel resources includes the channel, floodplain, and uplands, which supply sediment to the stream/river system. Based on our review of the 1995 OWRRI report and other reports and publications published since then, the IMST has identified four areas that need to be addressed when managing instream gravel resources; channel morphology, bedload transport and sediment budgets, cumulative effects, and effectiveness monitoring.

IMST Recommendations

IMST recommendations are based on our assessment of the best available science as it pertains to salmonid and watershed recovery and the management of natural resource. Recommendations are directed to one or more agencies or entities that have the ability to implement, or to affect changes in management or regulation that are needed for implementation. It should be noted that the IMST looks beyond an agency's *current* ability to implement the recommendations because current legal, regulatory, or funding situations may need to change. It is the belief of the IMST that if an agency agrees that a recommendation is technically sound and would aid the recovery of salmonid stocks and watersheds, the agency would then determine what impediments might exist to prevent or delay implementation and work toward eliminating those impediments. The Team also assumes that each agency has the knowledge and expertise to determine how best to identify and eliminate impediments to implementation and to determine appropriate time frames and goals needed to meet the intent of the recommendation. In addition, the IMST recognizes that an agency may already have ongoing activities that address a recommendation. Our inclusion of such an "overlapping" recommendation should be seen as reinforcement for needed actions.

Recommendation 1. The Oregon Plan Core Team should develop a statewide policy on the management of stream sediments and bedload transport.

The IMST recognizes the social demand for gravel and other aggregates mined from streams and active floodplains. Because of cost related to transportation, most of the mining occurs near urban and industrial centers where the aggregates are used. Multiple federal, state, and local agencies currently play roles in regulating aggregate mining. The State needs a policy that adequately addresses the sustainability of the resource and protecting the function and quality of riparian and aquatic ecosystems while meeting the future demand for aggregate resources to the degree that is environmentally sound.

During policy development the Core Team may want to consider the following elements:

- Identify one agency to have oversight on all floodplain and instream mining operations.
- Provide the means for the State to conduct impact analysis for stream systems, not just for individual operations.
- Manage sediments trapped behind dams and mitigate for sediment-poor stream sections below dams.

- Incorporate elements of the National Marine Fisheries Service's National Gravel Extraction Policy (NMFS 1996).
- Based on final commercial product, determine priority levels of aggregate mining from within channels and active floodplains. The State could encourage use of products that do not require the high quality sorted aggregates from channels and are more likely to occur in areas that are more suited for reclamation or mitigation. Other sources may include reservoir deltas, dredger tailings, inactive river terrace deposits, upland quarries, and recycling of aggregates (Kondolf 1998).
- Reflect changing land use practices that may affect future sediment inputs to streams, which in turn may affect the availability of commercial aggregates.

Recommendation 2. DSL should develop and integrate a basin level approach into its management policies.

While permits are issued on a site-specific basis, DSL should work toward maintaining the integrity and connectivity of stream ecosystems. This approach requires the integration of individual projects into a landscape framework to allow sound management decisions at both scales. To this end, the following recommendations support managing at a basin level.

Recommendation 3. DSL should determine sediment budgets and bedload transport rates on stream reaches with permitted aggregate mining operations.

Responsible management of natural resources requires information on the status, abundance, quality, and distribution of the resource. Oregon currently issues permits for gravel removal without knowing how much gravel resource remains and the trends in the status of the gravel resource.

Studies conducted in Washington and California have shown that mining within stream channels and active floodplains remove aggregates at rates exceeding the supply from catchments by an order of magnitude or more (Collins and Dunne 1989, Kondolf and Swanson 1993). No comparable studies are available for Oregon. Sediment budgets need to be developed to determine if current practices and future practices are not causing degradation of stream/river beds and or a decline in gravels within a stream/river system and if extraction rates can be sustained. Bedload transport rates must be known in order to estimate the rate of sand and gravel replenishment. These are particularly critical for streams regulated by dams. Method(s) for determining sediment budgets and bedload transport vary by stream systems. See Collins and Dunne (1990) and NCASI (1999) for further discussion on available methods. (Crossed referenced with OWRRI recommendation 7, this report)

Recommendation 4. DSL should track the actual amount of aggregate removed by permit holders.

Presently, DSL does not track the actual amount (cubic volume/operation) of aggregate removed by operators. The agency assumes that the actual amount is less than the permitted amount. As with any sustainable resource, such as timber, the amounts of aggregate harvested must be known in order to determine if the harvested amount exceeds the long-term supply or is deleterious to stream system functions. To properly determine sediment budgets, DSL needs to know the amount of material removed from each operation. Site surveys prior to mining and

after mining could quantify the amount of removal and compared to the amount of material permit operators haul from the site.

Recommendation 5. DSL, in cooperation with ODFW, should assess the cumulative impacts of aggregate mining on streams with declining salmonids.

Cumulative effects include the documentation of current conditions, how past activities may have affected conditions, what other activities are occurring in the reach or basin affecting the operation site and determining how these may interact with a proposed activity. Monitoring of cumulative effects may include short-term monitoring of caged fish during the mining activity, long-term aquatic population trends in the affected reaches, and assessment of aquatic life (macroinvertebrates, aquatic algae and higher plants and all fish species (not just salmonids). To increase the effectiveness of DSL's resource management this recommendation should be applied to all regulated activities including placer mining and fill operations. (Cross referenced with OWRI recommendations 1a, 1c, and 2b, this report)

Recommendation 6. DSL should increase the technical expertise of geomorphology and hydrology within the agency.

Currently DSL does not have a staff geomorphologist. This expertise in channel dynamics and sediment dynamics is essential to properly examine how removal-fill operations may affect channel morphology upstream or downstream from an operation or to conduct on-site evaluation to determine if modifications need to be made to permit conditions or best management practices. Additionally these areas of expertise are needed to determine sediment budgets and if current bar-skimming practices are significantly decreasing gravel supplies downstream from operations.

Recommendation 7. ODFW and DSL should identify critical salmonid migration routes not currently protected under the *Essential Indigenous Salmonid Habitat* (ORS 196.810(b); OARS 141-102-0000 thru 0040) designation where impediments to migration be occurring due to removal-fill activities.

Recommendation 7a. The Land Board and DSL should provide protection for critical salmonid migration routes identified by ODFW and DSL.

Currently the *Essential Indigenous Salmonid Habitat* designation only recognizes critical spawning and rearing areas and may not provide adequate protection for migration corridors, particularly in lowland systems. Anadromous salmonids use lowland river systems as migration corridors two or more times (depending on species) during their life cycle. As juveniles, salmonids may spend several weeks in the lower portions of a river before entering estuaries and oceans and require unobstructed access to these habitats. Juvenile migration may be impeded by physical, chemical, and thermal conditions. Returning adults passing through areas with removal/fill activities require sufficient holding and resting sites. Habitat modification from dredging, bar scalping, or fill activities may change migration patterns, simplify habitat, increase predation rates, and affect rearing potential in these rivers.

Recommendation 8. DSL and ODFW should develop an effectiveness monitoring program to determine if permit conditions under the Removal-Fill Law and General Authorizations maintain and protect salmonid fish habitat including gravel substrate, fish populations, and riparian conditions.

Currently DSL only conducts compliance monitoring on Removal-Fill and General Authorization permits. An effectiveness monitoring program is needed to determine if the conditions of the permits are providing both short- and long-term protection of salmonid habitat and populations, and the condition and function of riparian and wetland areas. DSL should work with ODFW and other agencies as appropriate to develop an effectiveness monitoring program that includes overall strategy and design, assessment of personnel and resource needs, monitoring implementation and evaluation at mining sites and affected reaches.

Recommendation 9. State Land Board and DSL should develop an adaptive management process that is linked to the effectiveness monitoring program.

Information gained from an effectiveness program needs to be linked to policy development through an adaptive management framework. The State Land Board and DSL should evaluate current policies and develop an appropriate framework. They may want to examine the current management structure used by Oregon Department of Forestry and the Forest Practices Act.

Recommendation 10. DSL should incorporate both the technical aspects of the 1995 report, *Gravel Disturbance and Impacts on Salmon Habitat and Stream Health*, prepared by the Oregon Water Resources Research Institute into their operations and policies, and the recommendations in this report.

The IMST independent review finds the Oregon Water Resources Research Institute to be technically sound and endorses both the report and the recommendations included. The information and recommendations within the report will assist DSL in better managing instream gravel sources and salmonid habitats. IMST has added several new recommendations that were not contained in the 1995 OWRI report.

We hope that these comments and recommendations assist the State of Oregon in developing sound management practices of instream gravel resources and to assist in the recovery of salmonids and watersheds.

Sincerely,

Stanley Gregory, Interim Co- Chair
Independent Multidisciplinary Science Team

William Percy, Interim Co-Chair

cc: Ann Hanus, Director DSL
State Land Board
Lindsay Ball, Director ODFW
John Esler, Chair OFWC
John Beaulieu, Director DOGAMI
Louise Solliday, GNRO
Neal Coenen, GNRO
IMST

6/19/2019

Native Fish Society Mail - Pistol River Gravel Mining Operation



Mark Sherwood <mark@nativefishsociety.org>

Pistol River Gravel Mining Operation

Steve Mazur <Steve.J.Mazur@state.or.us>
To: Mark Sherwood <mark@nativefishsociety.org>

Wed, Jun 19, 2019 at 3:53 PM

Mark,

What we use is the Department of State Lands Head of Tide location. It says river mile 1.4. I would interrupt this as the corner where Pistol River turns to East, downstream of the hatchery hole.

The in-water work period has been a really good guide to protect our various native fish. In this case, the applicant's in-water work period should be October 1- May 31. His project location is within the estuary. Protecting chinook juveniles is the main reason for recommending no in water work in our estuaries during the summer.

Steven Mazur

Supervisory District Fish Biologist

Rogue Watershed District

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[Quoted text hidden]

MARK SHERWOOD

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6/19/2019

Native Fish Society Mail - Pistol River Gravel Mining Corporation

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book • Twitter • Instagram

County Bridge

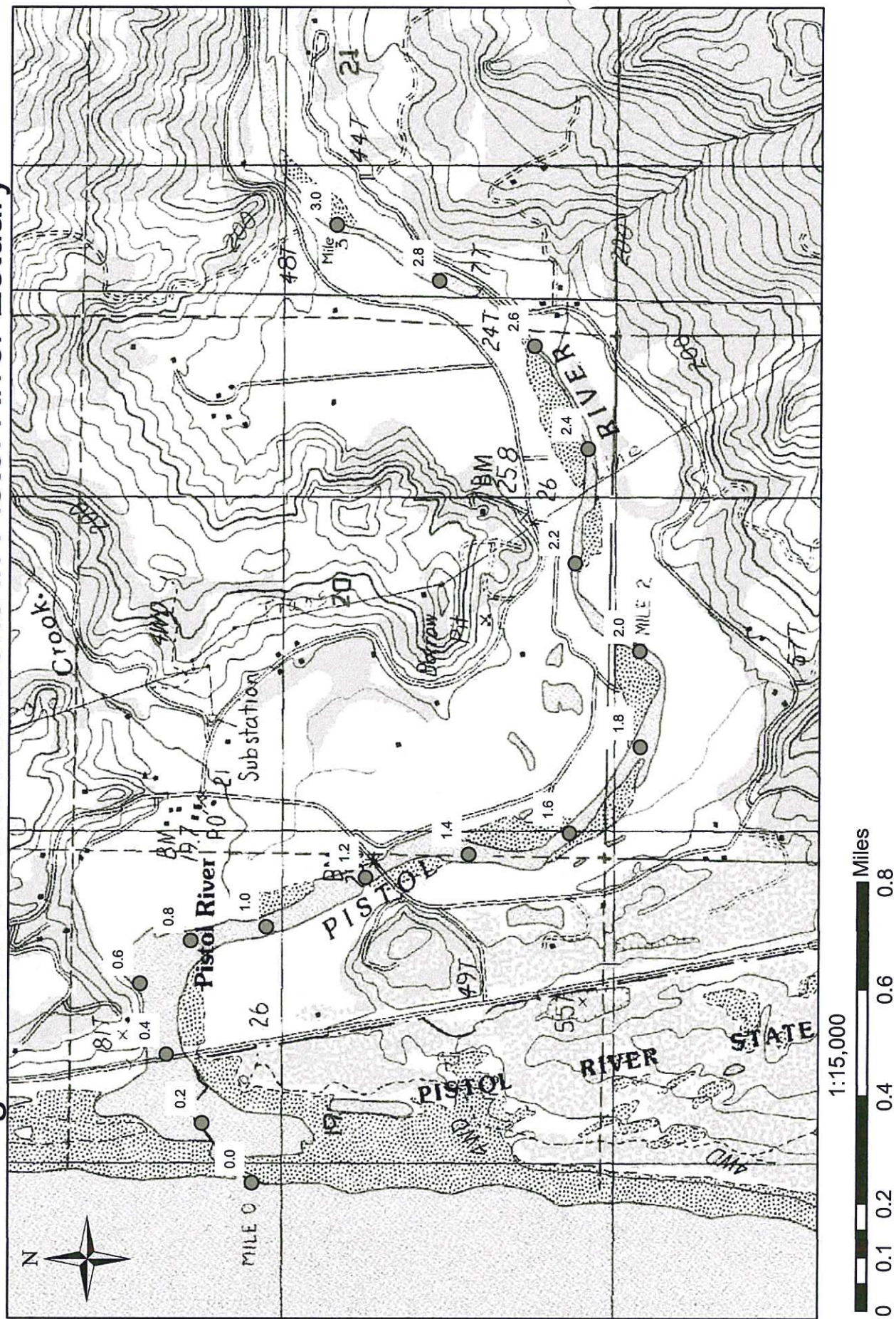


Capture.PNG
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Figure 10: Ecological Priority for Pistol River Tidal Wetlands



Figure 6: River Mile Locations in Pistol River Estuary





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910
THE DIRECTOR

JUN 10 2005

MEMORANDUM FOR: Regional, Science, and Office Directors, NMFS

FROM:

W. T. Hogarth
for William T. Hogarth, Ph.D.

SUBJECT:

Final National Marine Fisheries Service (NMFS) National Gravel
Extraction Guidance

The 1996 NMFS National Gravel Extraction Policy has been revised and reissued as the NMFS National Gravel Extraction Guidance (Gravel Guidance). The revised Gravel Guidance includes updated information, recommendations and references that will provide meaningful assistance to NMFS staff involved in consultation activities where gravel mining in or near streams may affect anadromous fishes and their habitat. Revisions to the Gravel Guidance further support and strengthen NMFS's recommendation that gravel extraction operations should not interfere with anadromous fish migration, spawning, or rearing; or negatively impact viable historic or existing anadromous fish habitat. The Gravel Guidance is reissued as a guidance document, rather than a policy statement, to reflect that it is internal NMFS guidance that should be adapted to address Regional needs and local physical and biological settings.

The process to update the Gravel Guidance was a collaborative effort involving input from NMFS Regional and Science Center staff, other state and Federal agencies, the aggregate industry, and the public. I would like to thank Kerry Griffin and Katie McGlynn of the Office of Habitat Conservation, and Dave Packer of the Northeast Fishery Science Center for managing this collaborative effort and producing the improved version of the Gravel Guidance. I would also like to thank all NMFS staff who contributed their time and insight to make the Gravel Guidance a more useful tool to protect anadromous fish resources and their habitats.

Comments or questions on the Gravel Guidance should be directed to: Dave Packer (F/NEC23) at Dave.Packer@noaa.gov, (732) 872-3044; or to Katie McGlynn (F/HC2) at Katie.McGlynn@noaa.gov, (301) 713-4300.

Attachment



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THE ASSISTANT ADMINISTRATOR
FOR FISHERIES



NATIONAL MARINE FISHERIES SERVICE NATIONAL GRAVEL EXTRACTION GUIDANCE

I. INTRODUCTION

The National Marine Fisheries Service (NMFS) is responsible for protecting, managing and conserving marine, estuarine, and anadromous fishes and their habitats. The watersheds of the United States provide essential spawning and rearing habitat for anadromous fishes including salmon, shad, sturgeon, and striped bass.

A national guidance document on gravel extraction is necessary because extraction in and near streams can cause many adverse impacts to anadromous fishes and their habitats. Potential impacts include: direct harm to trust species; loss or degradation of spawning, rearing, resting, and staging habitat; migration delays and/or blockages; channel widening, shallowing, or ponding; loss of channel stability; loss of pool/riffle structure; increased turbidity and sediment transport; increased bank erosion and/or stream bed downcutting; and loss or degradation of riparian habitat. The impacts can extend far beyond the mining site, and stream recovery can take decades.

In the context of Federal trust responsibilities, as defined in the collective body of Federal law and regulations, NMFS must ensure that federal actions, including authorizations to conduct gravel extraction operations, avoid, minimize, or mitigate to the greatest extent possible, any adverse impacts to anadromous fishes and their habitats. NMFS has been delegated the responsibility and authority under several Federal laws to address the effects of gravel extraction activities when the activities affect marine or anadromous fish under NMFS jurisdiction or their habitats. These authorities are summarized in Appendix I, and include the Endangered Species Act (ESA), Clean Water Act (CWA), National Environmental Policy Act (NEPA), Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), and the accompanying implementing regulations of each law.

This document revises and replaces NMFS' 1996 National Gravel Extraction Policy. The objectives of the NMFS Gravel Guidance are to (1) assist NMFS staff in determining whether proposed gravel extraction operations will be conducted in a manner consistent with Federal law, while (2) avoiding, minimizing, and mitigating any adverse impacts to anadromous fishes and their habitats. NMFS recommends that gravel extraction operations not interfere with anadromous fish migration, spawning, or rearing, or negatively impact viable existing or historic anadromous fish habitat. Further, it is recommended that individual gravel extraction operations be judged in the context of their spatial, temporal, and cumulative impacts, and that potential impacts to habitat be viewed from a watershed management perspective. Although this Guidance applies nationwide, it is not to be regarded as static or inflexible, as project recommendations must be made specific to individual sites, streams, and watersheds.

This Guidance does not specify the measures, if any, which would need to be implemented by parties engaged in gravel extraction activities in any given case to comply with applicable statutory requirements. In formulating its recommendations or prescriptions, NMFS will determine the acceptable means of demonstrating compliance with statutory requirements based

on information available to the agency, as appropriate under the circumstances presented. As such, the language of this Guidance for NMFS staff should not be read to establish any binding requirements on agency staff or the regulated community.

II. SCOPE OF GRAVEL GUIDANCE

This Guidance document addresses freshwater and tidal reaches of rivers and streams, tidal sloughs, and their associated wetlands and riparian zones where anadromous fish are currently or were historically present. Gravel extraction, as well as sand mining and dredging, also occurs in marine habitats such as the lower reaches of large tidal streams, estuaries and offshore. Marine extraction operations generally raise different concerns than those in streams. Although many elements of this Guidance are germane to all areas where gravel extraction occurs, the primary focus of this Guidance is extraction of gravel in streams rather than in marine environments.

The types of gravel extraction activities referred to in this Gravel Guidance generally entail commercial gravel mining (i.e., removing or obtaining a supply of gravel for industrial uses, such as road construction material, concrete aggregate, fill, and landscaping). Gravel can also be removed from stream channels for navigation and flood control purposes. Gravel extraction often occurs at multiple times and at multiple sites along a given stream, resulting in impacts that are likely to be both chronic and cumulative. When the rate of gravel extraction exceeds the rate of natural deposition over an extended time period, a net cumulative loss of gravel occurs (OWRRI [Oregon Water Resources Research Institute] 1995).

This Gravel Guidance document addresses three types of instream gravel mining, described as dry-pit and wet-pit mining in the active channel, and bar skimming (or “scalping”) (Kondolf 1993, 1994a, 1997, 1998a). Dry-pit refers to excavation on dry ephemeral stream beds and exposed bars with conventional bulldozers, scrapers, and loaders. Wet-pit mining involves the use of a dragline or hydraulic excavator to remove gravel from below the water table or in a perennial stream channel. Bar skimming or scalping removes the surface from gravel bars without excavating below the low water flow level.

In addition to the instream mining described above, this Guidance document also addresses another method, which involves the excavation of pits on the adjacent floodplain or river terraces (Kondolf 1993, 1994a, 1997, 1998a). Pits located above the water table are also known as dry-pits, while wet-pits are below, depending on the elevation of the floodplain or terrace relative to the baseflow water elevation of the channel. The isolation of these pits from an adjacent active channel may be only short-term. During a sudden change in channel course during a flood, or as part of gradual migration, the channel may shift into the gravel pits (Kondolf 1998a). Because floodplain pits can become integrated into the active channel, Kondolf (1993, 1994a) suggests that they should be regarded as part of the active channel if considered on a time scale of decades, and managed accordingly.

III. ENVIRONMENTAL EFFECTS OF GRAVEL EXTRACTION

Extraction of alluvial material from within or near a stream bed has a direct impact on the stream's physical habitat parameters such as channel geometry, bed elevation, substrate composition and stability, instream roughness elements (large woody debris, boulders, etc.), depth, velocity, turbidity, sediment transport, stream discharge, and temperature (Rundquist 1980; Pauley et al. 1989; Kanehl and Lyons 1992; Kondolf 1994a, b, 1997, 1998a; OWRRI 1995; Brown et al. 1998; Florsheim et al. 1998; Meador and Layher 1998; Langer 2001, 2003). OWRRI (1995) states that:

Channel hydraulics, sediment transport, and morphology are directly affected by human activities such as gravel mining and bank erosion control. The immediate and direct effects are to reshape the boundary, either by removing or adding materials. The subsequent effects are to alter the flow hydraulics when water levels rise and inundate the altered features. This can lead to shifts in flow patterns and patterns of sediment transport. Local effects also lead to upstream and downstream effects.

Altering these habitat parameters can have deleterious impacts on instream biota, food webs, and the associated riparian habitat (Sandecki 1989; Kanehl and Lyons 1992; Koski 1993; Spence et al. 1996; Brown et al. 1998). For example, impacts to anadromous fish populations due to gravel extraction can include: reduced fish populations in the disturbed area, replacement of one species by another, replacement of one age group by another, or a shift in the species and age distributions (Moulton 1980). Changes in physical habitat characteristics of aquatic systems can alter competitive interactions within and among species; similarly, changes in temperature or flow regimes may favor species that prey on anadromous fish populations (Spence et al. 1996). In general terms, Rivier and Seguer (1985) suggest that the detrimental effects to biota resulting from bed material mining are caused by two main processes: (1) alteration of the flow patterns resulting from modification of the river bed, and (2) an excess of suspended sediment. OWRRI (1995) adds:

Disturbance activities can disrupt the ecological continuum in many ways. Local channel changes can propagate upstream or downstream and can trigger lateral changes as well. Alterations of the riparian zone can allow changes in-channel [*sic*] conditions that can impact aquatic ecosystems as much as some in-channel activities.

One consequence of the interconnectedness of channels and riparian systems is that potential disruptions of the riparian zone must be evaluated when channel activities are being evaluated. For example, aggregate mining involves the channel and boundary but requires land access and material storage that could adversely affect riparian zones; bank protection works are likely to influence riparian systems beyond the immediate work area.

It should be emphasized that cobble and gravel substrates are in and of themselves extremely important habitat for anadromous fish including salmon, shad, striped bass, and sturgeon. Gravel habitat provides

protective crevices and well-oxygenated interstitial spaces that are important for anadromous fish egg hatching. Gravel habitat also contains rich assemblages of benthic nutrients used as food for developing fish larvae and provides macroinvertebrate food sources for post-larval juveniles.

The potential effects of gravel extraction activities on stream morphology, riparian habitat, and anadromous fishes and their habitats are summarized as follows:

1. **Instream gravel mining can disrupt the preexisting balance between sediment supply and transporting capacity, and can result in channel incision and bed degradation** (Kondolf 1997, 1998a; Florsheim et al. 1998; Meador and Layher 1998; Langer 2001, 2003). This is partly because gravel “armors” the bed, stabilizing banks and bars, whereas removing this gravel causes erosion (Lagasse et al. 1980; OWRRI 1995; Kondolf 1997, 1998a). Degradation and erosion can extend upstream and downstream of an individual extraction operation, and can result from bed mining either in or above the low-water channel (Collins and Dunne 1990; Kanehl and Lyons 1992; Kondolf 1994a, 1994b, 1997, 1998a; OWRRI 1995; Pringle 1997; Brown et al. 1998). For example, headcutting (upstream erosion), increased velocities, concentrated flows, and bank undercutting with subsequent loss of riparian habitat can occur upstream of the extraction site due to a steepened river gradient (Kanehl and Lyons 1992; OWRRI 1995; Kondolf 1997; Pringle 1997), resulting in the release of additional sediment to downstream reaches, where the channel may aggrade and become unstable (Kondolf 1997). Accelerated delivery of sediment from upstream can falsely indicate recruitment in balance with removal. Degradation can deplete the entire depth of gravel on a channel bed, exposing other substrates that may underlie the gravel, reducing the amount and quality of usable anadromous spawning and rearing habitat (Collins and Dunne 1990; Kondolf 1994a, 1997, 1998a; OWRRI 1995). For example, gravel removal from bars may cause erosion if they subsequently receive less bed material from upstream than is being carried away by fluvial transport (Collins and Dunne 1990). Thus, gravel removal not only impacts the extraction site, but also may reduce gravel delivery to downstream spawning and rearing areas (Pauley et al. 1989; Brown et al. 1998). Gravel mining itself often selectively removes gravels of approximately the same sizes as needed by salmonids for spawning [median diameters of between 15-45 mm (Kondolf and Wolman 1993); see also Kondolf (2000)], again reducing the amount of usable spawning and rearing habitat.
2. **Instream gravel extraction can increase suspended sediment, sediment transport, water turbidity, and gravel siltation** (Kanehl and Lyons 1992; OWRRI 1995; Kondolf 1997). The most significant change in the sediment size distribution resulting from gravel removal is a decrease in sediment size caused by fine material deposition into the mining site (Rundquist 1980). Brown et al. (1998) also note that the fine material can travel long distances downstream as a plume of turbidity while the gravel is being removed, and during floods, turbidity is likely to be higher than normal for even longer distances downstream due to the higher flow rate and increased entrainment of sediments as a result of channel deformation or armor layer removal. As reviewed by Everest et al. (1987), fine sediments in particular are detrimental to salmonid redds (nests) because (1) interstitial spaces blocked by deposited silt prevents oxygenated water from reaching the incubating eggs within the redd, and inhibits the removal of waste metabolites; (2) embryos or sac fry can be smothered by high concentrations of suspended sediments that enter the redd; and (3) emerging fry can become trapped if enough sediment is deposited on the redd (Koski 1966, 1981; Chapman 1988; Reiser and White 1988; Waters 1995). High silt loads may also inhibit larval, juvenile, and

adult behavior, migration, or spawning (Snyder 1959; Cordone and Kelly 1961; Koski 1975; Bisson and Bilby 1982; Berg and Northcote 1985; Bjornn and Reiser 1991; Kanehl and Lyons 1992; Servizi and Martens 1992; OWRRI 1995). Excessive amounts of suspended material can abrade the protective slime coatings on the surface of the fish and their gills, which can lead to increased bacterial and fungal infections (Cordone and Kelly 1961; Rivier and Segquier 1985). Increased suspended sediments may block vision and impede feeding (Sigler et al. 1984; Rivier and Segquier 1985). Siltation, substrate disturbances and increased turbidity also negatively affect the invertebrate food sources of fishes and severely alter the aquatic food web, thus affecting the growth and survival of the fish (Kanehl and Lyons 1992; OWRRI 1995; Spence et al. 1996; Brown et al. 1998).

3. **Bed degradation can change the morphology of the channel and decreases channel stability** (Moulton 1980; Rundquist 1980; Sullivan et al. 1987; Collins and Dunne 1990; Kanehl and Lyons 1992; Kondolf 1994a, b, 1997; OWRRI 1995; Brown et al. 1998; Florsheim et al. 1998). Gravel extraction can cause a diversion or a high potential for diversion of flow through the gravel removal site (Rundquist 1980). Mined reaches of a river or stream that show decreased depth and/or surface flow, which can occur where the flow is spread over a wide area and there is considerable intergravel flow, could block fish migration during periods of low flows (Moulton 1980). This could be caused by gravel bar skimming in particular (see Environmental Effect Number 4, below), and may compound problems in many areas where flows may already have been altered by hydropower operations, irrigation, or other human uses. Even if the gravel extraction activity is conducted away from the active river channel during low water periods (see Environmental Effect Number 8, below), substrate stability and channel morphology outside the excavated area's perimeter could be affected during subsequent high water events (Kondolf 1997, 1998a).
4. **Gravel bar skimming can significantly impact aquatic habitat.** Bar skimming creates a wide flat cross section, eliminating confinement of the low flow channel, which can then result in a thin sheet of water at baseflow (Kondolf 1994a, 1997). Sediment transport efficiency may be reduced through the unconfined reach due to the increased width to depth ratio, causing deposition and subsequent instability (Kondolf 1998a). Removal of the bar may alter channel hydraulics upstream as well as at the gravel extraction site (Kondolf 1998a). Bar skimming can also remove the gravel "pavement," leaving the finer subsurface particles vulnerable to entrainment (erosion) at lower flows (Kondolf 1994a, 1998a; OWRRI 1995). A related effect is that bar skimming lowers the overall elevation of the bar surface and may reduce the threshold water discharge at which sediment transport occurs (OWRRI 1995). Salmon redds downstream are thus susceptible to deposition of displaced alluvial material, resulting in egg suffocation or suppressed salmon fry emergence, while redds upstream of scalped bars are vulnerable to regressive erosion (Pauley et al. 1989). Gravel bar skimming also appears to reduce the amount of side channel areas, which can reduce and/or displace juvenile salmonid fishes that use this habitat (Pauley et al. 1989). All these effects can be particularly problematic if upstream flows are already reduced by diversions, dams, or other human activities.
5. **Operation of heavy equipment in the channel bed can directly destroy spawning habitat, rearing habitat, the juveniles themselves, and macroinvertebrates; can produce**

increased turbidity and suspended sediment downstream; and has the potential to cause toxic chemical spills (Forshage and Carter 1973; Kondolf 1994a). Heavy equipment usually crosses stream channels where the stream is shallowest, at riffles. Riffle habitat is important for juvenile salmonids (Bradford and Higgins 2001) because, for example, the juveniles often respond to disturbances by entering the interstitial spaces between the gravel substrate at riffles (Shrivell 1990; Meehan and Bjornn 1991). These pore spaces in the gravel substrate are important sources of cover or refuge (Raleigh et al. 1984). Therefore, juveniles in this riffle habitat could be susceptible to crushing from heavy equipment. Additional disturbances to redds may occur from increased foot and vehicle access to spawning sites, due to access created initially for gravel extraction purposes (OWRRI 1995). Also, heavy equipment is powered by diesel fuel and lubricated by other hazardous petroleum products, leading to the potential for toxic chemical spills.

- 6. Stockpiles of overburden and gravel left or abandoned in the channel or floodplain can alter channel hydraulics during high flows.** During high water, the presence of stockpiles can cause fish blockage or entrapment, and fine material and organic debris may be introduced into the water, resulting in downstream sedimentation (Follman 1980). The stockpiles may also concentrate flows on the stream bed or floodplain resulting in increased, localized erosion.
- 7. Removal or disturbance of instream roughness elements during gravel extraction activities can negatively affect both quality and quantity of anadromous fish habitat.** Instream roughness elements, including the gravel itself and large woody debris, play a major role in providing structural integrity and complexity to the stream or river ecosystem and provide habitat critical for anadromous fish (Koski 1992; Naiman et al. 1992; Franklin et al. 1995; Murphy 1995; OWRRI 1995; Abbe and Montgomery 1996; Collins and Montgomery 2002; Collins et al. 2002). These elements are important in controlling channel morphology and stream hydraulics; in regulating the storage of sediments, gravel and particulate organic matter; and in creating and maintaining habitat diversity and complexity (Franklin 1992; Koski 1992; Murphy 1995; OWRRI 1995). Large woody debris in streams creates pools and backwaters that fish use as foraging sites, critical overwintering areas, refuges from predation, and spawning and rearing habitat (Koski 1992; Maser and Sedell 1994; OWRRI 1995). Large wood jams at the head of gravel bars can anchor the bar and increase gravel recruitment behind the jam (OWRRI 1995). Loss of large woody debris from gravel bars can also negatively impact aquatic habitat (Weigand 1991; OWRRI 1995). The importance of large woody debris has been well documented, and its removal results in an immediate decline in salmonid abundance (e.g., see citations in Koski 1992; Franklin et al. 1995; Murphy 1995; OWRRI 1995). It is also important to remember that gravel deposits are themselves instream roughness elements, which is key to recognizing that the same type of effects apply (i.e., linking hydraulics and habitat is also applicable for gravel deposits underwater or on bars).
- 8. Dry pit and wet pit mining in floodplains may reduce groundwater elevations, reduce stream flows, increase water temperature, and create potential for fish entrapment** (Langer 2003; NMFS 2004). A reduction in groundwater elevation may occur when floodplain pits are pumped by operators to increase production, and by evaporation of

surface water in large pits. Reductions in groundwater elevations can consequently result in a decrease in stream flow, which is particularly hazardous to fish during low flow periods. Subsurface connectivity between pits and streams also presents a possibility of increased stream temperatures when pit surface water is heated by the sun and eventually drains to the stream. The risk of fish entrapment associated with floodplain pit mining is due to two processes: (1) floods overtopping the pit perimeter; and (2) natural migration of the channel into the excavated area (Kondolf 1998a). Ponded water isolated from the main channel may strand or entrap fish carried there during high water events (Moulton 1980; Palmisano 1993; Kondolf 1997). Fish in these ponded areas could experience higher temperatures, lower dissolved oxygen, increased predation compared to fish in the main channel, an altered food web, desiccation if the area dries out, and freezing (Moulton 1980; Spence et al. 1996; Kondolf 1997, 1998a).

The likelihood and extent of groundwater, stream flow, water temperature, and entrapment effects associated with floodplain mining are directly related to the pit's proximity to the active stream channel, pit size relative to the stream, and the frequency of flood inundation (Langer 2003; NMFS 2004).

9. **Destruction of the riparian zone during gravel extraction operations can have multiple deleterious effects on anadromous fish habitat.** The importance of riparian habitat to anadromous fishes (Koski 1993) should not be underestimated. For example, Koski (1992) states that a stream's capacity to produce salmonids is controlled by the structure and function of the riparian zone. The riparian zone includes stream banks, riparian vegetation, and vegetative cover. Damaging any one of these elements can cause stream bank destabilization resulting in increased erosion, sediment and nutrient inputs, and reduced shading and bank cover leading to increased stream temperatures. Destruction of riparian trees also means a decrease in the supply of large woody debris. This results in a loss of instream habitat diversity caused by removing the source of materials partially responsible for creating pools and riffles that are critical for anadromous fish growth and survival, as outlined in Environmental Effect Number 7, above (Koski 1992; Murphy 1995; OWRRI 1995).

Gravel extraction activities can damage the riparian zone in several ways:

- If the floodplain aquifer discharges into the stream, groundwater levels can be lowered because of channel degradation. Lowering the water table can kill riparian vegetation (Collins and Dunne 1990).
- Long-term loss of riparian vegetation can occur when gravel is removed to depths that result in permanent flooding or ponded water. Also, loss of vegetation occurs when gravel removal results in a significant shift of the river channel that subsequently causes annual or frequent flooding into the disturbed site (Joyce 1980).
- Heavy equipment, processing plants, and gravel stockpiles at or near the extraction site can destroy riparian vegetation (Joyce 1980; Kondolf 1994a; OWRRI 1995). Heavy equipment also causes soil compaction, thereby increasing erosion by reducing soil infiltration and causing overland flow. As mentioned in Environmental Effect Number 5 above, the use of heavy equipment also leads to the increased risk of chemical pollution; hazardous chemicals may also be used in nearby sediment processing plants. In addition,

roads, road building, road dirt and dust, and temporary bridges can also impact the riparian zone.

- Removal of large woody debris from the riparian zone during gravel extraction activities negatively affects the plant community (Weigand 1991; OWRRI 1995). Large woody debris is important in protecting and enhancing recovering vegetation in streamside areas (Franklin et al. 1995; OWRRI 1995).
- Rapid bed degradation may induce bank collapse and erosion by undercutting and by increasing the heights of banks (Collins and Dunne 1990; Kondolf 1994a, 1997).
- Portions of incised or undercut banks may be removed during gravel extraction, resulting in reduced vegetative bank cover, causing reduced shading and increased water temperatures (Moulton 1980).
- Banks may be scraped to remove “overburden” to reach the gravel below. This may result in destabilized banks and increased sediment inputs (Moulton 1980).
- The reduction in size or height of bars can cause adjacent banks to erode more rapidly or to stabilize, depending on how much gravel is removed, the distribution of removal, and on the geometry of the particular bed (Collins and Dunne 1990).

10. Gravel mining can cause a change in disturbance regimes and patterns with a concomitant change in habitat and species (Castro and Cluer, unpublished report). Stream and river systems are disturbance driven, which can temporarily or permanently alter the character of the system. These disturbances include natural variations in flow regimes and floods events, sediment delivery to the system, large inputs of organic materials, changes in base level, etc. Disturbances can be described by their frequency (e.g., the 100-year flood), duration (length of time), magnitude (areal extent), intensity (force exerted), and severity (the biological response) (OWRRI 1995). The bed within the active stream channel experiences the greatest disturbance frequency, which could be as often as every year (i.e., sediment transport events). The side channel and backwater areas are not as frequently disturbed, but are affected by higher flow events and channel avulsions (perhaps 5 to 10-year flows). Floodplains are disturbed even less frequently than the main and side channels; it may take a major flood event on the order of a decade or longer before the floodplain shows significant alteration. Finally, terraces and hillslopes have the lowest disturbance frequency (e.g., slope failures and mass movements).

Common to all of these disturbances is that the episode of disturbance is followed by a period of recovery (OWRRI 1995). If the disturbance events become so frequent that the system cannot fully recover before the next event, then the system is held in a constant state of disequilibrium or instability (Castro and Cluer, unpublished report). Organisms in these habitats show different responses to these disturbances, depending on such factors as their differences in developmental times, behavior, and their responses to environmental factors (OWRRI 1995). Pringle (1997) contends that anthropogenic activities downstream, including urbanization, dams, gravel mining, etc., can cause effects on organisms upstream, such as genetic isolation, population-level changes, and ecosystem-level changes. Alteration of a punctuated disturbance regime (as described above) to one of chronic disturbance overlain with larger infrequent disturbances often results in a shift of the plant and animal communities to ones that are more adapted to constant disturbance (OWRRI 1995). Incised streams and rivers may be subject to chronic disturbance because of the disconnection of the

floodplain. Instream gravel mining may cause chronic disturbance with a concomitant change in the habitat and associated species. Although sediment transport events may occur annually, and may be compared to gravel mining activities, the latter are temporally distinct from natural events. As OWRI (1995) affirms about salmonids:

Over the last six million years salmonids have evolved within the natural disturbance regime. Novel disturbances can shift the ecological rules governing community structure making the recovery of the original biota impossible.

IV. RECOMMENDATIONS

The following recommendations do not specify the measures, if any, that would need to be implemented by parties engaged in gravel extraction activities in order to comply with applicable statutory requirements. In formulating its recommendations or prescriptions, NMFS will determine the acceptable means of demonstrating compliance with statutory requirements based on information available to the agency, as appropriate under the circumstances presented. As such, the language of this Guidance should not be read to establish any binding requirements on agency staff or the regulated community. The recommendations should not be regarded as static or inflexible, and are meant to be revised as the science upon which they are based improves and areas of uncertainty are resolved. Furthermore, the recommendations are meant to be modified for regional or local use, so a degree of flexibility in their interpretation and application is essential.

In general terms, gravel extraction operations located in or immediately adjacent to streams have greater impacts to anadromous fish resources and habitats than operations located further away from the stream. **Therefore, NMFS recommends that all reasonable efforts be made to identify gravel sources in upland areas and terraces before deciding to site project operations in or near streams.** This is commensurate with the CWA section 404 rationale of *avoiding* impacts, *minimizing* (when not reasonably possible to avoid), and then *mitigating* (when not reasonably possible to minimize).

If, after a thorough alternatives analysis, instream, floodplain, or terrace mining is going to proceed, NMFS recommends that project operations be carefully designed to minimize impacts to trust resources, including habitat. If the recommendations outlined in this Guidance are followed, such that (1) anadromous fishes and their habitats are protected; and, (2) appropriate and timely restoration is implemented to mitigate unavoidable impacts, gravel mining can, as suggested by Langer (2003), take place within acceptable limits. Many factors must be considered when designing a gravel mining project that conforms to environmental constraints. The recommendations below present only a general list of these considerations. Each project should be considered in its own context, based on project design, stream type and condition, natural resources, and cumulative impacts. NMFS Regional Offices are encouraged to adopt more detailed guidelines tailored to specific physical settings and biological needs.

1. **NMFS recommends that upland aggregate sources, terraces and inactive floodplains be used preferentially to active channels, their deltas and floodplains.** It is recommended that gravel extraction sites be situated outside the active floodplain and that the gravel is not

excavated from below the water table. In other words, dry-pit mining on upland outcrops, terraces or the floodplain is preferable to any of the instream alternatives. Bar skimming is generally preferable to wet-pit mining (deep water dredging) within the active channels if no upland or floodplain sources are reasonably available (see Recommendation Number 6, below). In addition, it is recommended that operators not divert streams to create an inactive channel for gravel extraction purposes, and avoid the formation of isolated ponded areas that cause fish entrapment. In all cases, it is recommended that efforts be made to minimize the need for crossing active channels with heavy equipment.

2. **NMFS recommends that pit excavations located on the adjacent floodplain or terraces should be preferentially sited outside the channel migration zone, and as far from the stream as possible. NMFS recommends that pits be separated from the active channel by a buffer designed to maintain this separation for several decades.** As previously discussed in Section II, the effects of floodplain mining are related to the subsurface hydrological connections between pits and streams, as well as the potential for active channel migration into the floodplain pits ('pit capture'). Therefore, as noted by Kondolf (1993, 1994a), NMFS recommends that pits be considered as potentially instream when viewed on a time scale of decades. Consequently, it is recommended that floodplain pits be located outside the channel migration zone and as far from the stream as possible. This is particularly important given that the likelihood and extent of adverse effects associated with floodplain mining is directly related to the pit's proximity to the active channel (Langer 2003; NMFS 2004). It is recommended that buffers or levees that separate the pits from the active channel be sufficient to accommodate long-term channel migration, infrequent flooding or inundation, and to avoid fish entrapment. Kondolf (1997) reminds us that:

A river channel and floodplain are dynamic features that constitute a single hydrologic and geomorphic unit characterized by frequent transfers of water and sediment between the two components. The failure to appreciate the integral connection between floodplain and channel underlies many environmental problems in river management today.

Generally, the physical setback of the pit from the channel should be based on several channel widths, or on the meander belt. Pit size should also be considered in determining appropriate buffers. Larger pits have the capacity to absorb a much greater volume of sediment than smaller pits, upon pit capture.

3. **NMFS recommends that larger rivers and streams be used preferentially to small rivers and streams.** Larger systems generally have more gravel and a wider floodplain, and a proportionally smaller disturbance in large systems will reduce the overall impact of gravel extraction (Follman 1980). On a smaller river or stream, the location of the extraction site is more critical because of the limited availability of exposed gravel deposits and the relatively narrower floodplain (Follman 1980). In either case, NMFS recommends that the extraction volume relative to coarse sediment load be low.
4. **NMFS recommends that braided river systems be used preferentially to other river systems.** The river systems, listed in the order of increasing sensitivity to physical changes

caused by gravel extraction activities, are: braided, split, meandering, sinuous, and straight (Rundquist 1980). Because braided river systems are dynamic and channel shifting may be a frequent occurrence, channel shifting resulting from gravel extraction might have less of an overall impact because it is analogous to a naturally occurring process (Follman 1980). However, gravel extraction from braided streams is still considered instream extraction, and NMFS recommends that it be avoided.

5. **NMFS recommends that instream gravel removal quantities be strictly limited so that gravel recruitment and accumulation rates are sufficient to avoid prolonged impacts on channel morphology and anadromous fish habitat.** While this is conceptually simple, annual gravel recruitment to a particular site is, in fact, highly variable and not well understood. Recruitment is the rate at which bedload is supplied from upstream to replace the extracted material. Kondolf (1993, 1994b) dismisses the common belief that instream gravel extraction can be conducted safely so long as the rate of extraction does not exceed the rate of replenishment. Kondolf (1993, 1994b) states that this approach to managing instream gravel extraction is flawed because it fails to account for the upstream/downstream erosional effects that change the channel morphology as soon as gravel extraction begins. In addition, Kondolf (1993, 1994b, 1997) reiterates that flow and sediment transport for most rivers and streams is highly variable from year-to-year, thus an annual average rate may be meaningless. An "annual average deposition rate" could bear little relation to the sediment transport regimes in a river in any given year. Moreover, sediment transport processes are very difficult to measure and to model, so estimates of bedload transport may prove unreliable (Kondolf 1997). These problems and uncertainties indicate a need for cautious interpretation of sediment yield results, and the conservative application of volume limitations on extraction projects. Any gravel removal in streams or rivers that have a recent history of eroding bars or banks and/or stream bed lowering is not recommended.

Collins and Dunne (1990) recommend that appropriate rates and locations for instream gravel extraction should be determined on the basis of:

- the rate of upstream recruitment;
- whether the river bed elevation under undisturbed conditions remains the same over the course of decades, or the rate at which it is aggrading or degrading;
- historic patterns of sediment transport, bar growth, and bank erosion;
- prediction of the specific, local effects of gravel extraction on bed elevations, and the stability of banks and bars, taking into account an analysis of present or past effects of gravel extraction at various rates; and
- a determination of the desirability or acceptability of the anticipated effects.

In addition, it is recommended that the habitat values of remaining (or newly recruited) sediments be functionally adequate or equivalent for the purposes of migration, spawning, rearing, benthic invertebrate production, and any other identified habitat needs. Upstream recruitment is ineffective if the necessary ecological functions are not replaced or restored.

6. **NMFS recommends that gravel bar skimming be allowed only under restricted conditions.** (See Section III, Environmental Effect Number 4, for the environmental impacts of gravel bar skimming.) Therefore, NMFS recommends that:

- gravel be removed only during low flows and from strictly-defined areas above the low-flow water level;
- berms and buffer strips be used to direct stream flow away from the site and to provide for continued migratory habitat;
- the final grading of the gravel bar not significantly alter the flow characteristics of the river during periods of high flows (OWRRI 1995);
- bar skimming operations be monitored to ensure they are not adversely affecting gravel recruitment or channel morphology either upstream or downstream from the site;
- geomorphic features be monitored using methods that quantify their physical dimensions and changes at appropriate time scales. This will likely include densely spaced cross-sections to cover the geomorphic features, topographic mapping techniques that do not rely solely on cross-sections but follow terrain features, and modern mapping techniques that grid entire areas with closely spaced data; and
- any gravel removal in streams or rivers that have a recent history of eroding bars or banks, or stream bed lowering, be discouraged.

7. **NMFS recommends that prior to gravel removal, a thorough review of sediments and point and non-point sources of contaminants be conducted.** Toxic compounds from a variety of sources (municipalities, manufacturing plants, hardrock mines, etc.) may be present in sediments, and can be released into the stream when disturbed during gravel extraction operations. It is recommended that sediment testing be conducted to detect metals and organic compounds (DDT, PCBs, etc.), and residual acid or heavy metal drainage from hardrock mining operations; and that during project operations, extracted gravel, sand, and sediments not be washed directly in the stream or river or within the riparian zone.

In addition, it is recommended that an assessment of contaminant sources be completed to assist in determining potential problems with contaminated sediments. Sources can include farming, mining, National Pollutant Discharge Elimination System (NPDES)-permitted activities, forestry, sewage treatment plants, and other municipal infrastructure.

To minimize the suspension of sediments, it is recommended that measures be taken to contain turbidity plumes, and to avoid excessive disturbance of sediments. It is also recommended that turbidity levels do not exceed maximum allowable turbidity limits for anadromous fish and their prey.

8. **NMFS recommends that removal or disturbance of instream roughness elements during gravel extraction activities be avoided, and that those that are disturbed be replaced or restored.** As previously stated in Section III, Environmental Effect Number 7, instream roughness elements, particularly large woody debris, are critical to stream and river ecosystem functioning. This may be particularly true in small streams where large woody debris plays a relatively greater role in channel morphology and sediment dynamics than in larger streams or rivers. In addition, it is recommended that gravel itself be considered an instream roughness element, and that consideration be given to leaving similar-sized gravel in the stream bed, in addition to replacing large woody debris.

9. NMFS recommends that gravel extraction operations be managed to avoid or minimize damage to stream/river banks and riparian habitats. Therefore, NMFS recommends that:

- gravel extraction in vegetated (or those that would be vegetated without repeated anthropogenic disturbances) and riparian areas be avoided;
- gravel pits located on the adjacent floodplain not be excavated below the water table;
- berms and buffer strips in the floodplain that keep active channels in their original locations or configurations be maintained for several decades (as in Recommendation Number 2, above);
- undercut and incised vegetated banks not be altered;
- large woody debris in the riparian zone be left undisturbed or replaced when moved;
- all support and processing operations (e.g., gravel washing) be done outside the riparian zone;
- gravel stockpiles, overburden and/or vegetative debris not be stored within the riparian zone, and they be disposed of properly after extraction;
- operation and storage of heavy equipment within riparian habitat be restricted.
- access roads not encroach into the riparian zones; and
- riparian zone protection extend well upstream and downstream from the project site when possible because the erosional effects of instream gravel mining can be manifested miles upstream and downstream from the site of operations.

10. NMFS recommends that the cumulative impacts of gravel extraction operations to anadromous fishes and their habitats be addressed by the Federal, state, and local resource management and permitting agencies and be considered in the permitting process. The cumulative impacts on anadromous fish habitat caused by multiple extractions and sites in a given stream, river, or watershed are compounded by other riverine impacts and land use disturbances in the watershed. These additional impacts may be caused by river diversions/impoundments, flood control projects, logging, grazing, and channel/riparian encroachment. The technical methods for assessing, managing, and monitoring cumulative effects are a future need outside the scope of this Gravel Guidance document. Nevertheless, it is recommended that individual gravel extraction operations be judged from a perspective that includes their potential adverse cumulative impacts (Kondolf 1997, 1998a; see also Council on Environmental Quality, Office of Federal Activities 1997 and U.S. EPA 1999 for general cumulative impact guidance). It is recommended that this be reflected in any gravel extraction management plan. NMFS will promote the same watershed approach to cumulative impact analysis when reviewing non-mining activities in or near the aquatic environment.

11. NMFS recommends that an integrated environmental assessment, management, and monitoring program be a part of any gravel extraction operation, and encouraged at Federal, state, and local levels. Assessment is used to predict possible environmental impacts. Management is used to implement plans to prevent, minimize, and mitigate negative impacts. Monitoring is used to determine if the assessments were correct, to detect environmental changes, and to support management decisions.

Before gravel mining operations commence it is recommended that operators submit plans to

the appropriate Federal, State and local agencies outlining their proposed project, including, but not limited to location, methods, timing, duration, proposed extraction volumes, and post-mining landscape morphology. Prior to extraction, it is important to establish existing biological and physical conditions, evaluate possible environmental impacts, and describe ways in which adverse environmental impacts are to be prevented or minimized, with the goal of achieving and maintaining the natural ecological functions of the habitat. Using a combination of best available technologies and methods, it is recommended that the following be assessed:

- Characterize and identify fish species distributions, abundances, and life stages.
- Identify habitat requirements and determine limiting environmental factors of the anadromous fish populations. In addition to the limiting factors identified by Koski (1992), it is recommended that this analysis evaluate the proposed timing of extraction operations relative to adult and juvenile migration patterns and choose in-water work windows accordingly.
- Develop a flow frequency curve.
- Calculate sediment budgets, taking into consideration such periodic natural events as floods (Meador and Layher 1998).
- Predict possible changes in water quality, channel morphology, and potential adverse cumulative impacts.
- Propose a mitigation and restoration strategy based on preventing impacts, minimizing unavoidable impacts, and mitigating for all immediate and cumulative impacts (see Recommendation Number 12, below).

NMFS recommends that the operators also check with their NMFS Regional Offices for any regionally specific procedures and guidelines.

While gravel mining operations are ongoing, it is important to monitor permitted operations and verify environmental safeguards. At a minimum, it is recommended that the following attributes be monitored on a regular basis:

- extraction rates and volumes;
- impacts to the river bed, banks, and bars be documented adjacent to, upstream, and downstream of the project using benchmarked channel cross-sections, Digital Elevation Models, and aerial photographs;
- species distributions and abundances;
- water quality including turbidity, dissolved oxygen, and contaminants; and
- effectiveness of mitigation activities.

NMFS recommends that permits have a maximum 5 year limit and be subject to annual review and revision to protect anadromous fish and their habitats (e.g., it is recommended that one element of the annual review determine whether resource management and monitoring objectives are being met). NMFS recommends that a third party be responsible for carrying out monitoring activities and reporting these results to the permitting agency, the operator, the appropriate natural resource agencies, and other stakeholders.

12. NMFS recommends that mitigation be an integral part of the management of gravel

extraction projects. It is important that mitigation be based on replacing equivalent habitat values and functions, as per the U.S. Army Corps of Engineers (USACE) Regulatory Guidance Letter No. 02-2 (2002) on compensatory mitigation. It is recommended that a mitigation strategy be included in the management program of each project, and where possible, mitigation activities be initiated concurrently with the gravel mining operations. NMFS recommends that a mechanism for correcting problems identified via monitoring be written into the permit, as monitoring is not worthwhile unless there is a mechanism to address problems that are identified as a result of the monitoring program. In terms of National Environmental Policy Act (NEPA) regulations, mitigation includes, in sequential order:

- avoidance of direct or indirect impacts or losses;
- minimization of the extent or magnitude of the action;
- repair, rehabilitation or restoration of integrity and function;
- reduction or elimination of impacts by preservation and maintenance; and
- compensation by replacement or substitution of the resource or environment.

Thus, restoration follows avoidance and minimization. The preceding definitions recommend that restoration aim to restore the biotic integrity of a riverine ecosystem, not just repair the damaged abiotic components. An overview of river and stream restoration can be found in Gore et al. (1995). A universal, prototype long-term monitoring strategy for watershed and stream restoration can be found in Bryant (1995); see also the various papers by Kondolf and others (e.g., Kondolf and Larson 1995; Kondolf and Micheli 1995; Kondolf 1998b). In addition, see Beechie and Bolton (1999), who discuss approaches to restoring salmonid habitat-forming processes in Pacific Northwest watersheds, and Roni et al. (2002), who review stream restoration techniques and present a hierarchical strategy for prioritizing restoration in these watersheds.

Koski (1992) states that the concept of stream habitat restoration as applied to anadromous fishes is based on the premise that fish production increases when those environmental factors that limit production are alleviated. Thus, an analysis of those “limiting factors” is critical to the restoration process. Koski (1992) further states that effective stream habitat restoration must be holistic in scope, and approached through a three-step process:

1. First, a program of watershed management and restoration must be applied to the watershed to ensure that all major environmental impacts affecting the entire stream ecosystem are addressed (i.e., cumulative impacts). Obviously, an individual gravel extraction project is not expected to restore an entire watershed suffering from cumulative effects for which it was not responsible. Rather, needed mitigation and restoration activities in a riverine system should focus on direct and indirect project effects and must be designed within the context of overall watershed management.
2. Next, restore the physical structure of the channel, instream habitats, and riparian zones (e.g., stabilize stream banks through replanting of riparian vegetation, conserve spawning gravel, and replace large woody debris). This would reestablish the ecological carrying capacity of the habitat.

3. Finally, the fish themselves should be managed to ensure that there are sufficient spawning populations for maximizing the restored carrying capacity of the habitat.

Without restoration, stream recovery from gravel mining can take decades (Kanehl and Lyons 1992). However, NMFS recommends that reliance on restoration be put into proper perspective. It is important to acknowledge that there are significant gaps in our understanding of the methodology and effectiveness of restoration of streams and anadromous fish habitat affected by gravel extraction activities. Overall, restoration as a science is relatively young and experimental, and the processes and mechanisms are poorly understood. Little is known about the functional value, stability and resiliency of many so-called "restored" habitats. To date, existing regulations or plans pertaining to the mitigation and restoration of gravel extraction sites have been simplistic or vague, and because restoration science and planning is still rudimentary, NMFS recommends that each project first begin its mitigation analysis with avoidance and minimization.

As an example, gravel extraction in California is regulated under the concept of "reclamation," which is derived from open-pit surface mining, such as large coal mines. Although the definition and implementation of reclamation may vary among states, Kondolf (1993, 1994b) states the concept of reclamation, as applied to open-pit mines, often assumes that the environmental impacts are confined to the site; therefore, site treatment is considered in isolation from changes in the surrounding terrain. Kondolf (1993, 1994b) suggests that this definition treats the site as an essentially static feature of the landscape. He argues that, while these assumptions may work for extraction operations located in inactive stream or river terraces, active channels and floodplains are dynamic environments, where disturbances can spread rapidly upstream and downstream from the site during and after the time of operation. The stream or river will irrevocably readjust its profile during subsequent high flows, eradicating the gravel pits and giving the illusion that extraction has had no impact on the channel. Kondolf (1993, 1994b) claims that a survey of bed elevations will show a net lowering of the bed, which reflects the more even distribution of downcutting (erosion) along the length of the channel. Even if the channel profile were to recover after project completion due to an influx of fresh sediment from upstream, habitat will have been lost in the meantime. Thus, it is not possible to disturb one site in isolation from the rest of the ecosystem, or confine the disturbance to a single, detached location, and then subsequently reclaim or reverse the impacts (Brown et al. 1998). Kondolf (1993, 1994b) concludes that reclamation can be applied to gravel pits in terrace deposits above the water table, but the reclamation concept is not workable for regulating instream gravel extraction. Similarly, in regards to instream gravel mining, Brown et al. (1998) conclude that, "total restoration of severely affected streams would probably be impossible."

Moreover, Kondolf (1998a) reminds us that:

The effects of instream gravel mining may not be obvious immediately because active sediment transport is required for the effects (e.g. incision, instability) to propagate upstream and downstream. Given that geomorphically-effective sediment transport events are infrequent on many rivers, there may be a lag of several or many years before the effects of instream gravel mining are evident and

Becky Crockett

From: Mark Nelson <mark@nelsonbooks.biz>
Sent: Sunday, June 23, 2019 2:23 PM
To: Becky Crockett
Subject: AD-1907 Pistol River

Becky Crockett, Planning Director
94235 Moore Street
Gold Beach, OR 97444

June 23, 2019

Dear Ms. Crockett,

I am writing to express my concerns over the Planning Commission's actions of June 20, 2019 concerning agenda item AD-1907 which regards the rock operation at Pistol River.

The Commission's official stance seems to be "We don't have nearly enough information presented in the application to make an informed decision, therefore we are going to pass it anyway."

In the PowerPoint presentation, it was noted that Mr. Adam's application was incomplete, lacking any information as to hours of operation proposed, noise levels produced, number and type of trucks to haul rock, impact on the roads and bridges, or any other pertinent information. Then it was stated that a permit had once been granted, then REVOKED, because of the impact on the fish and the surrounding environment. It was reiterated more than once by Commissioner Lange that there simply was not enough information to proceed. He even used the phrase "putting a saddle on a yearling", which I took to mean "highly premature". Then, in a stunning move, the Commission voted to rubber-stamp the application and move it forward. It was reminiscent of Nancy Pelosi's infamous remark, "we have to pass the bill to see what's in it." The action was perceived by many as "the fix is in."

I am further dismayed by the lack of notification of these types of proceedings to all those impacted. I understand that the Commission only has to do the minimum by law to "notify the public". This usually consists of placing an ad in the Personals column of the local newspaper, and posting a notice in a few public places, such as a library or school. But the board must know that those meager actions in no way reach most of the working public, much less those who may have summer homes here or who may be travelling during the summer season.

We were told during the meeting to "trust the system." These actions, the passing of an application which was shoddy and highly incomplete, as well as a lack of good-faith effort to actually notify people as to decisions that directly affect them, lead a reasonable person to wonder if the entire process is trustworthy.

Mark Nelson
23896 Carpenterville Rd.
Gold Beach, OR 97444



OREGON SHORES
CONSERVATION COALITION

June 20, 2019

Becky Crockett, Planning Director
County Planning Department
94235 Moore Street, Ste. 113
Gold Beach, OR, 97444

Via Email to: crockettb@co.curry.or.us

**Re: Application AD-1907, Adams
Request for Conditional Use Approval for Mining and Aggregate Processing
by Ronald Adams
Comments of Oregon Shores Conservation Coalition**

Dear Chair Freeman and members of the Commission:

Please accept these comments from the Oregon Shores Conservation Coalition and its members (collectively "Oregon Shores") to be included in the file for Application AD-1907. Oregon Shores is a non-profit organization dedicated to protecting the Oregon coast's natural communities, ecosystems, and landscapes, while preserving the public's access to these priceless treasures in an ecologically responsible manner. Our mission includes assisting local residents in land use matters and other regulatory processes affecting their coastal communities, as well as engaging Oregonians and visitors alike in a wide range of advocacy efforts and stewardship activities that serve to protect our state's celebrated public shoreline and coastal heritage. For nearly half a century, Oregon Shores has been a public interest participant in legal processes and policy decisions related to land use and shoreline management in Oregon.

Oregon Shores requests that the Planning Commission allow a seven-day continuance of this public hearing to provide an opportunity to respond to any new evidence offered at the hearing, and that the Planning Commission leave the record open to enable submission of

additional information and rebuttal of information presented for at least fourteen days.¹ Please notify us of any further decisions, reports, or notices issued in relation to this Application. Oregon Shores will provide further comments as appropriate and allowed during the continuance period.

Oregon Shores recognizes the necessity of aggregate mining and gravel extraction uses. However, this need must be balanced against the equally important need to protect our vital and vulnerable coastal environments. We provide these written comments in order to underscore the apparent deficiencies in the Application materials and to emphasize the importance of a robust review prior to development in a highly dynamic coastal stream environment—particularly when a proposed development risks altering coastal ecosystems. These deficiencies are discussed in further detail below.

I. Background and General Analysis

A. The Pistol River

Oregon Shores is concerned that the project as proposed may harm the Pistol River's valuable natural resources and recreational opportunities in a manner inconsistent with the requirements of the Curry County Comprehensive Plan ("CCCP"), the Curry County Zoning Ordinance ("CCZO"), as well as a number of state and federal criteria that may be applicable to the proposed uses. We contend that the Application before you does not provide sufficient information to support an assurance that such harm will not occur. The Pistol River drains a watershed entirely contained within Curry County. Of particular importance where this Application is concerned, the river provides habitat for many important aquatic species, including the federally listed Coastal Coho salmon. The mouth of the river crosses public shorelands and a dune conservation area. The area provides many important recreational activities for residents of and visitors to Curry County. It is a popular windsurfing destination and hosts an internationally renowned annual windsurfing competition. The Pistol River is also one of the world's celebrated fly-fishing streams, one of the key water bodies contributing to Curry County's growing reputation as the "Wild Rivers Coast."

B. The Application materials lack sufficient information to analyze potential adverse impacts to the Pistol River and adjacent natural areas.

CCZO Sec. 2.150(5)(a) states that the burden of proof in a land use matter rests upon the proponent. "The more drastic the change or the greater the impact of the proposal in an area, the greater is the burden on the proponent."² A proposal for the mining and processing of aggregate on two parcels adjacent to the Pistol River could have a significant impact on water resources, aquatic habitat, land stability, and existing uses in the surrounding area. Thus, the Applicant has a proportional burden to demonstrate compliance with all applicable criteria. As discussed in this section, the current Application materials do not provide the required data and analysis to meet this burden of proof.

¹ See CCZO Sec. 2.140(2)(k). Hearing Procedure.

² CCZO Sec. 2.150(5)(a).

Per Oregon Shores' review of the Application materials and the Staff Report for this matter, the Applicant appears to be seeking to establish a gravel mining operation on or immediately adjacent to the Pistol River. Oregon Shores was unable to locate a specific description of the exact site for the proposed use or the method of gravel mining. Additionally, the Application materials allude to river "revitalization efforts" proposed to commence following the completion of the mining activities that are the subject of this Application. The Applicant asserts, absent any narrative detail or specifications, that these actions will be taken for the purpose of strengthening the riverbank under Carpenterville Road as well rerouting the river into its "natural width." Neither of these proposed actions can be undertaken by an individual without multiple express permit authorizations from multiple state and federal agencies, including but not limited to the U.S. Army Corps of Engineers ("ACOE"), the Oregon Department of State Lands ("DSL"), and the Oregon Department of Environmental Quality ("DEQ"). These permitting systems are in place so as to prevent unintended damage to protected public resources, species, and ecosystems. The Application materials do not include sufficient information for the Planning Commission to conduct a robust evaluation of the potential adverse impacts that the operation, including the "revitalization efforts," could have on the river and its surrounding environment.

The subject property is upstream from land that is zoned for public facilities (PF), as well as a Beach and Dune Conservation (CON) area. The mouth of the stream cuts directly through the CON area. The Application materials do not provide any meaningful data to assess whether the proposed use will have a detrimental effect on these areas. The Pistol River is a listed 303(d) river for temperature under the Clean Water Act, and as such is required to be managed in a way to limit increases to overall water temperature.³ The Application asserts that the proposed uses will produce a net benefit for river temperature, but provides no data sufficient to assess this claim. Silt from mining operations is known to negatively affect fish habitat. Because the river contains a federally listed species, any negative modification to habitat may be considered "takes" of affected species and risk running afoul of the Endangered Species Act. Changes to the river flow could erode and damage dunes and beaches or cut off access to public areas. More specific information concerning the location, nature, and potential impacts of the operation is necessary prior to any final decision in this matter.

On the basis of the present record, the Applicant has failed to demonstrate that the proposed use substantially complies with the requisite criteria. Absent further information, the Application should not be approved.

II. The Application materials lack sufficient information to demonstrate compliance with CCZDO Sec. 7.040(10).

In addition to the standards of the zone in which a proposed conditional and permitted use is located and the other standards within the CCZO, conditional permitted uses must meet the

³ Section 303(d) of the Clean Water Act authorizes EPA to assist states, territories and authorized tribes in listing impaired waters and developing Total Maximum Daily Loads (TMDLs) for these waterbodies. A TMDL establishes the maximum amount of a pollutant allowed in a waterbody and serves as the starting point or planning tool for restoring water quality.

standards contained in CCZO Sec. 7.040 (Standards Governing Conditional Uses). CCZO Sec. 7.040(10)(a) contains nine standards governing mining, quarrying, and extractive activities, and states that plans and specifications submitted to the Commission for approval must “contain sufficient information to allow the Commission to review and set siting standards” in accordance with the standards.⁴ Of these standards, seven are directly applicable to the Application under consideration. As discussed below, the Application materials do not provide sufficient information regarding plans and specifications to assess compliance with the applicable criteria. On the basis of the present record, the data is insufficient for the Planning Commission to determine whether the necessary standards have been met. The data insufficiencies associated with each applicable standard are discussed in further detail below:

CCZO Sec. 7.040(10)(a)(1): Impact of the proposed use on surrounding land uses in terms of [DEQ] standards for noise, dust, or other environmental factors.

The Application states that dust associated with the proposed use will be controlled and that noise should not be an issue based on the size of the property. No further discussion of how the Applicant proposes to meet environmental quality standards for noise and dust is provided. Further, Oregon Shores was unable to locate any discussion of other environmental factors as required by this criterion. The location of the parcel on the Pistol River is directly upstream of land zoned for Public Facilities (PF) as well as Beach and Dunes Conservation Area (CON). The mouth of the river cuts directly through the CON area. Any changes to the flow and sediment load of this river could have significant effects on the integrity of the dunes, wildlife habitat contained within, or public access. Further specificity is needed to truly evaluate the possible effects on environmental factors.

CCZO Sec. 7.040(10)(a)(2): The impact of the proposed use on water quality, water flow, or fish habitat on affected rivers or streams.

The Application materials fail to discuss the potential adverse impacts that the proposed mining operation may impose on water quality in a manner that would allow for meaningful evaluation against the applicable criteria. Data regarding overall water quality and any potential degradation is omitted. The Applicant’s statement that the operation will be “almost entirely on bare gravel” leaves open the potential for some of the operation to be conducted within the Pistol River, or at least areas that are part of the river’s bed at high flows. Discussion about water flow is largely omitted. Claiming that the river has eroded and fanned out “many times it’s [sic] natural width” is contrary to current and publicly available scientific understanding of lower-river function and thus of best practices regarding proper river management. Likewise, fish habitat is mentioned only in the terms of current state of degradation. Any proposal to contain and reengineer the river would require many more permits and resources than just the “help of odf&w [sic].” On the basis of the present record, the Commission cannot conclude that the Application is consistent with this criterion. The Commission should request more information from the Applicant regarding any proposed uses or activities related to containing or reengineering the river prior to any final decision in this matter.

⁴ Emphasis added.

CCZO Sec. 7.040(10)(a)(3): The impact of the proposed use on overall land stability, vegetation, wildlife habitat and land or soil erosion.

Similarly, no discussion is provided regarding the impact of the proposed uses on overall land stability, vegetation, wildlife habitat, and land or soil erosion. The Applicant explicitly indicates plans to reengineer the river bank near Carpenterville Road and the adjacent bridge. Further permits and detailed engineering plans would be necessary to attempt to undertake a riverbank revitalization near a major thoroughfare, as well as for any work on a public bridge. Absent further information about the Applicant's intended riverbank revitalization, the Planning Commission cannot conclude that the proposed use is consistent with this criterion.

CCZO Sec. 7.040(10)(a)(4): The adequacy of protection for people residing or working in the area from the proposed mining activity through fencing of the site.

No mention of fencing appears in the application. The specific site is not mentioned so there is no way to evaluate if the project will be close to any public access points, although a public road borders the property. Absent further information, the Planning Commission cannot conclude that the proposed uses are consistent with this criterion.

CCZO Sec. 7.040(10)(a)(5): The rehabilitation of the land upon termination of the mining activity. The proposed rehabilitation must at least meet the requirements of state surface mining or gravel removal permits.

Although the Applicant expresses a clear willingness to rehabilitate the land after the completion of the proposed mining activity, there is no specificity for how this rehabilitation or any potential mitigation will be accomplished. As discussed above, the Applicant would require multiple permits and authorizations to move forward with this type of activity. Absent more data concerning the mining operation or grounds for certainty that the Applicant could obtain permits for the proposed rehabilitation activities, the Commission cannot conclude that the proposed use is consistent with this criterion.

CCZO Sec. 7.040(10)(a)(6)" If the proposed extractive activity involves the removal of rock, gravel, or sediment from a river or stream, the proposal shall be reviewed by the Oregon Department of Fish and Wildlife and it may provide a written statement to the county regarding the possible impact on fish habitat associated with the affected river or stream.

Although the Application materials do not explicitly propose the removal of gravel from a river or stream, the narrative provided implies that possibility. Although it is stated that the "operation will be almost entirely on bare gravel," the lack of any data regarding the exact location of the proposed use leaves open the possibility that some of it will occur within the Pistol River, if not in-water work, then disturbance of its high-flow winter bed. Further specificity of the exact nature of the mining operation is needed for the Commission to evaluate the project. Additionally, if any activity will occur within the Pistol River, the Applicant must obtain authorization by permitting agencies with jurisdiction over gravel removal, such as the

National Marine Fisheries Service (NMFS), ODFW, ACOE, DSL, and DEQ prior to commencing any development.

CCZO Sec. 7.040(10)(a)(7): The County will define an area around the specific removal site which includes all lands within 250 feet of the site, based on the site map for a state mining or gravel permit. The applicant shall provide findings which identify the existing uses on those lands included within this area. The Commission shall evaluate the applicant's findings with regard to the potentially conflicting uses identified in the area based on the factors below: i) If the mining activity can be sited on an alternate site; and ii) where conflicting uses are identified the economic, social environmental and energy consequences of the conflicting uses shall be determined and methods developed to resolve the conflict.

The Applicant has provided some discussion of the lands adjacent to the subject property. However, because the removal area is not defined in the Application, it is impossible to evaluate whether the activity can be sited elsewhere or if there are any conflicting uses whether they be economic, social, environmental or energy. Any potential resolutions cannot be properly evaluated. On the basis of the present record, the proposed use fails to demonstrate consistency with this criterion.

CCZO Sec. 7.040(10)(a)(8) A rock crusher, washer or sorter shall not be located closer than 500 feet to any residential or commercial use. Surface mining equipment and necessary access roads shall be constructed, maintained, and operated in such a manner as to eliminate, as far as is practicable, noise, vibration, or dust which are injurious or substantially annoying to persons living in the vicinity.

The Application asserts, without sufficient supporting data, that all residents are “at least 500 feet from operations.” More specificity is required to evaluate this claim. Information about equipment or machinery “lay down” is omitted. On the basis of the present record, the Application fails to demonstrate compliance with this criterion.

CCZO Sec. 7.040(10)(a)(9) No uses are permitted relating to offshore oil, gas or marine mineral exploration or development.

This section does not apply to the Applicant’s proposed use.

III. Conclusion

Oregon Shores understands that sand, gravel, and aggregate are necessary resources, and that mining for them must take place somewhere. However, a mining operation immediately adjacent to, and possibly within the bed of, a river of high ecological, recreational, and economic importance should receive the highest level of scrutiny. Oregon Shores would state firmly that the present Application falls short of supplying the information that would be necessary for this level of analysis. Whether the Applicant can in fact supply this information and meet the required burden of proof seems questionable, but that is a judgment to be reserved for consideration of a fuller Application, should one be submitted in the future. The necessary conclusion with regard to the current Application before the Planning Commission must be that

Oregon Shores Conservation Coalition
Public Comment for Application AD-1907

it falls short and should be rejected for lack of sufficient information. For all the reasons stated above, Oregon Shores recommends denial of the permit application.

Sincerely,

A handwritten signature in black ink, appearing to read "Phillip", followed by a long horizontal line extending to the right.

Phillip Johnson
Executive Director
Oregon Shores Conservation Coalition
P.O. Box 33
Seal Rock, OR 97376
(503) 754-9303
phillip@oregonshores.org

Becky Crockett, Curry County Planning Director
94235 Moore Street,
Gold Beach, OR 97444

June 20, 2019

RE: Public Hearing for Permit AD-1907

Dear Ms. Crockett and Curry County Planning Commission Board of Directors:

We are writing in regards to the hearing regarding issuing a permit to approve a mining operation in the Pistol River area.


We have several concerns we would like to see addressed prior to any approval being given for this operation.

1. How will this affect the water quality of the pristine Pistol River?
2. What about Fish Habitat?
3. What are the projected noise levels in this operation?
4. The request is for daylight hours, 5 days a week. Does that mean it could possibly take place as many as 18 hours a day?

We are also quite concerned on how this will affect the property values of the Pistol River area.

Although we feel that limited gravel removal seems reasonable we are extremely concerned when it comes to the processing (rock crushing/washing/asphalt production) could do to this area.

Respectfully,



Les and Mary Stansell
95100 S Bank Pistol River Road
Gold Beach, OR 97444
les@stansellguitars.com
mary@goldbeachproperties.net



Nectar of Life Coffee Company LLC
Hannah Jennings
94790 S Bank Pistol River Road
Brookings, OR 97415

June 20, 2019

Becky Crockett, Planning Director
94235 Moore Street
Gold Beach, OR 97444

Dear Ms. Crockett,

My husband, Martin Jennings and I own and operate Nectar of Life Coffee Company. In regards to the proposal to mine the Pistol River we are stating that the operation would directly negatively impact our business. We are formally objecting.

Photographs of the river are used on packages, our marketing materials, and social media accounts. The river is the basis of the "life" in Nectar of Life. The images of the river have been shared, and viewed over 80K times in the last year. The "value" of the view to our business translates to about \$15k per year.

We have personal objections as well, but those will be addressed separately. For this hearing, we are stating that we would have a loss of income as a result of the mine. It would create a strain on the infrastructure, the rock trucks would damage the public roads making traversing them a hazard. It is imperative that the roads be clear (not having to maneuver around large rock trucks) so we can make sure our coffee is delivered on-time.

The mining operation could put our business in jeopardy. We need the view. We need the roads. It is imperative.

If the mine is granted access, we reserve the right to seek damages to our business. The actual financial losses could be substantially greater than those stated in the preliminary numbers above. We will be required to seek full financial restitution. Those named in the application will be responsible to cover any and all costs associated with the legal ramifications.

Thank you for allowing our voice in the matter.

Sincerely,

Hannah Jennings

Hannah Jennings

hjj

Becky Crockett
Planning Director
Curry County Planning Department

Dear Ms. Crockett:

I urge you to deny the permit for the Land Use Action (Application AD-1907) on the Pistol River.

My primary concerns are with the impact on the fish populations and on the water quality in general.

My late husband was active in the Salmon Trout Enhancement Program (STEP) and we both enjoyed the Pistol River in myriad ways while still respecting its value and working to protect it.

I have lived on the Pistol River for 35 years and fought this same proposal in 2003. It was a bad idea then and an even worse idea now.


Linda Elfman
Pistol River

Becky Crockett

From: Suzanne Anastasi <jasp475@gmail.com>
Sent: Thursday, June 20, 2019 10:09 AM
To: Becky Crockett
Subject: Protest to Pistol River Gravel Extraction

We, John & Sue Anastasi are totally against the installation of a gravel pit on the Pistol River. It will negatively impact the areas: wild life, scenic value of area, increase noise levels, property values, increase traffic negatively, worsen road that are already in trouble. These are just a few of the problem that will impact individuals & wild life that live in the area. We are totally against putting in a rock &/or asphalt plant on the beautiful scenic Pistol River.

Becky Crockett

From: Maarty Van Otterloo <maartyvo@gmail.com>
Sent: Monday, June 17, 2019 11:14 PM
To: Becky Crockett
Subject: Comments regarding Application AD-1907 Conditional land use request

Respondent

Maarten Van Otterloo
24506 Pistol River Loop
Gold Beach, OR 97444

Comments

General

The application indicates that aggregate mining would occur on a gravel bar on the floodplain estuary of the Pistol River. Because of the salmonid and steelhead characteristics of this river, I had thought that any gravel extraction would be prohibited by statute. Certainly any exposed gravel is below the high water mark level of this river.

At present, fisherman regularly use the stream bed to fish the river for salmon and steelhead in the late fall, for trout in the early summer. Any channelization of the river because of aggregate removal would have the potential of limiting public access to this fishery.

Specific comments

I do take issue with some of the findings, namely

Section 7.040 (10.) subsection 2. Page 6

The finding is based upon a statement of the applicant that the waterway is in disarray. A braided streambed in an estuary always changes its course dependent upon seasonality and the severity of storms. The Pistol River is not a waterway in disarray, it is undergoing a natural phenomenon. It is the applicant's stated opinion that water temperatures have risen, which kills fish. I agree that heated water is detrimental to fish, but no evidence has been provided to back the assertion that water temperatures have risen. No recorded history or scientific data points are referenced as to water temperatures: the planning department has just taken a statement from the applicant at face value with no corroborating evidence. I would suggest a stay of any decision until appropriate data is supplied by the applicant.

Section 7.040(10) subsection 3. Page 7

The applicant has stated again that the river is in disarray, primarily because it is eroding its south side bank. This spring, the river switched sides and is now eroding the North bank. In some sense, it could be stated that the applicant's objective is to dig a trench to direct the water in a central manner to stop the river from eroding his property. Ditching to prevent erosion is certainly not an approved activity for a salmonid stream.

From a long term perspective, the river has wandered throughout its flood plain: 1860 maps of the area show the river's course was actually on the south side of Delta Hill (not on the North side as is now the case.), later maps show the river taking a long northern sweep in the vicinity of the Pistol River Fire Hall. For the river to change course over time, it naturally erodes its banks. It will contract and expand over time. Recent events, such as the widening of its water course, happen repeatedly throughout history. Again no data has been supplied to characterize the river's "natural width" – whatever that term is meant to imply.

Staff Recommended Conditions of Approval

Condition #11.

The way I read it, if the applicant does not adhere to the conditions of the permit, all that happens is nullification of the permit. There does not seem to be any significant penalties or other enforcement actions associated with failure to comply to the conditions of the permit. I would like to see the insertion of significant penalty clauses and I would suggest that at a minimum, the County require a posting of a bond or letter of credit by the applicant in the amount of the economic value that might be achieved through exploitation of the aggregate resource. At \$25 per cubic yard, a bonding requirement of at least \$250,000 would be reasonable.

Suggested additional reporting

Measurement

There seems to be no methodology for monitoring the amount of aggregate that is to be extracted. How will the public or the county know when 10,000 cubic yards is reached? How will the public or the county know if the applicant extracts more than 10,000 cubic yards? I would like to see the implementation of a reporting system.

County Compensation

I would like to see the implementation of an extraction fee -akin to a royalty as part of the mining process- say \$0.25 to \$1.00 a cubic yard, paid as the extraction commences. Again such a system would require measurement reporting

Maarten Van Otterloo

Sent from [Mail](#) for Windows 10



June 19, 2019

Becky Crockett, Planning Director & Planning Commission
Curry County Planning
94235 Moore Street Ste. 113
Gold Beach, OR 97444

Re: Conditional Use Permit for Gravel Mining in Pistol River Estuary

Dear Ms. Becky Crockett and Directors of the Planning Commission,

This testimony is submitted on behalf of the Native Fish Society, an Oregon based non-profit organization, that exists to build the groundswell of public support needed to revive abundant wild fish, free-flowing rivers, and thriving local communities. Our work is advanced by our 4,000 members, supporters, and volunteers including four River Stewards based in Curry County. As the Executive Director of the Native Fish Society and a resident of Pistol River, I've made it my life's mission to work with our community members to revive abundant fish here in Curry County, including the Pistol River a place I'm fortunate enough to call home.

Attached is a photo of my son, Enzo, born in February of 2019, on the county bridge over the Pistol River. Ensuring that he and his generation get to see abundant salmon, steelhead, and trout when they're my age is a big part of my personal motivation for this work and these comments.

Based on my personal observations both fishing and snorkeling this segment of Pistol River and these comments, which are based on the enclosed watershed and fish conservation reports, plans, and guidelines, we believe it is impossible for the applicant to develop an industrial gravel mining operation, within the median higher high water mark of this tidally influence segment of the river without creating significant negative impacts to Chinook and threatened Coho salmon, steelhead, cutthroat trout, and their habitats. I respectfully request the Planning Commission deny the conditional use permit unless the applicant can provide proof that gravel operations will not harm fish species or their habitats.

For the sake of working toward a win-win opportunity, if carefully designed and executed, there does seem to be some potential for an upslope gravel operation that could provide gravel production and benefits for fish if the excavated areas reconnect historic oxbow and floodplain habitats to the mainstem river channel, increasing accessible wetland and estuarine habitats for fish.

Estuaries: Biological and Economic Engines

An estuary is defined as a place where ocean tidal waters meet the freshwater flows of a stream. Estuaries are where marine and river ecosystems meet. This point of convergence creates some of the most biologically productive areas on Earth.

Of the 21 major estuaries on the Oregon Coast, there are just five listed under the Oregon Estuary Classification System as existing in a “natural” condition. Pistol River’s estuary is one of those five - an estuary lacking maintained jetties or channels with little developed for commercial, residential, or industrial uses. In short, Pistol River’s natural estuary is biologically rich, rare, and creates important habitats for fish and wildlife species.

In Pistol River, the estuary (as defined by the upper extent of saltwater influence during annual king tides) extends more than a mile above the county bridge, in the vicinity of the old hatchery site, just downstream of the ODOT easement in the lower river (see Tidal Wetland Assessment pg. 8). As a result, the lands proposed for gravel extraction fall within both the boundary of the estuary of Pistol River and the active river area as defined by the Nature Conservancy. This active river area includes, “1) material contribution areas; 2) meander belts; 3) floodplains; 4) terraces; and 5) riparian wetlands.”

The gravel bars proposed for mining also fall within the median higher high water mark and below riparian vegetation. Notably, this site for gravel extraction is significantly different, and in much more sensitive habitat, than nearby gravel mining operations on the Chetco, Smith, and Rogue rivers, which are not located in the estuaries, active river channels, and below median higher high water levels. Simply put, not all places where gravel exists and could be extracted, are equally sensitive. The location under consideration is a very sensitive habitat for fish species.

Estuaries, like that of Pistol River are also important economically. Estuaries are the source of, “75 percent of the U.S. commercial fish catch, and an even greater percentage of the recreational fish catch (National Safety Council’s Environmental Center, 1998).” Estuaries are valuable places for tourism, boating, recreational angling, and wildlife viewing. According to the Dean Runyan Report on Fishing, Hunting, and Wildlife Viewing, natural estuaries, like the Pistol’s help contribute to the estimated \$22 million of travel-related expenditures from wildlife viewing and fishing in Curry County.

Estuaries = Fish Nurseries & Essential Salmonid Habitat

Often called the nurseries of the sea, estuaries provide critical habitats and play a unique role in the development of fish species, including salmon. During high winter flows, estuaries and their surrounding floodplains provide slower moving waters for juvenile salmon to seek refuge and forage for additional food. Without an estuary, small salmon and steelhead would be flushed into the ocean too early and at too small of a size to survive. All salmon and steelhead that are successful, occupy estuarine habitats at least twice in their life and often for extended periods of time. It’s very valuable habitat for nearly all the fish in Pistol River!

While small gravel operations existed in many coastal river basins in the past, during the mid-1990s state and the federal fisheries agencies revised their guidance around gravel mining to reduce the

impact on fish species. As a result, gravel operations moved from smaller to larger river systems and upslope from areas in or near rivers, to inactive floodplain areas outside the channel migration zone. For reference see the National Marine Fisheries Service, 2005 Gravel Extraction Guidelines included with these comments. As a result, the current area, which is both in and near the active river channel and in an estuary to boot, is not an area NMFS or the various other permitting agencies will suitable as a place for gravel extraction.

In cooperation with ODFW, the Department of State Lands utilizes “Essential Salmonid Habitats” to regulate removal-fill activities under their authority. DSL defines essential salmonid habitat, as “the habitats necessary to prevent the depletion of native salmon species (chum, sockeye, Chinook and Coho salmon, and steelhead and cutthroat trout) during their life history stages of spawning and rearing.” The Pistol River estuary, including the segment under consideration for the conditional use permit, is designated as essential salmonid habitat.

It’s unclear when the gravel mining operation will occur during the year. In the winter, frequent floods typically 20-25k cubic feet per second will inundate the proposed mining area, any mining equipment, and much of the adjacent floodplain. During the fall, rain events fill the estuary portion of the bar bound river causing it to “backup” likely inundating the proposed gravel mining site at that time. During the spring and summer, the river adjacent to the proposed mining area will be home to large densities of juvenile salmon, steelhead, and trout. The proposed site is a dynamic one often flooded and almost always home to important fish species.

Pistol River Fish

Fish species native to the Pistol River include fall Chinook salmon, threatened coho salmon, winter steelhead, and searun cutthroat. For all of these fish, the estuarine habitats provide a critical function and are a significant determining factor on the health of entire populations.

Fall Chinook

Fall Chinook, also known as king salmon, are the largest of the Pacific salmon species with some adult fish growing as large as 100 lbs. These fish return as adults from the ocean in the fall and spawn in the late fall and early winter. Adult Chinook salmon lay their eggs in a rock nest called a redd. All salmon die after spawning. Juvenile fall chinook emerge from the gravel during February and March. During the summer months on average, 160,000 juvenile fall Chinook migrate down to the Pistol River estuary, where they will feed for the next 3-4 months to increase their body size and the likelihood of survival in the ocean.

According to the Rogue Fall Chinook Conservation Plan:

Based on trapping results in the lower portions of the Pistol River and the Winchuck River, it appears that at least one-half of the juvenile fall Chinook salmon entered the estuaries must have reared for a protracted period of time before attainment of a size conducive to survival after ocean entry. With the evidence of density-dependent food and habitat limitations for juvenile fall Chinook salmon in small southern Oregon estuaries, it appears that the volume and quality of rearing habitat in the estuaries is likely a primary factor that limits production in the coastal population areas. (Rogue Fall Chinook Conservation Plan, pg. 86).

Simply put if we further degrade or shrink our estuaries, it will decrease the number of returning Chinook salmon. The health and size of the estuary and its water quality has a direct impact on the health and size of the fall Chinook run.

Annually, Pistol River returns are estimated between 1,000 and 4,300 fall Chinook with a goal of 1,300 spawners every year (Rogue Fall Chinook Conservation Plan). Recent low returns of fall Chinook salmon suggest these fish are already experiencing stress in Pistol River as conservation criteria level have not been met, identified as, "Spawning escapement of naturally produced fall Chinook salmon averages less than 540 age 3-6 fish during any three consecutive years." (Rogue Fall Chinook Conservation Plan, pg. 138). As a result, the recreational salmon fishing season for Pistol River is closed for 2019.

On June 18th 2019 I snorkeled the river adjacent to the proposed gravel mining site and observed juvenile chinook salmon holding in and near the large woody debris found in the river channel. Like coral reefs in the ocean, downed trees and large rock structures create habitat for juvenile fish to use for hiding from predators, feeding on prey, and resting from stream currents.

To increase the health and abundance of these fish, it's important to avoid further channelization of the river in its lower reaches through actions like gravel mining in or near the river channel. Instead, if gravel mining were focused on old dikes and reconnecting historic side channels, oxbows, and flood plains with the river channel, it would increase the wetted area of the estuary, provide additional habitat complexity and cover, and likely reduce flow velocities, reducing bank erosion. For more information see the "Oregon South Coast Estuaries Tidal Wetlands Assessment."

Coho Salmon

Coho salmon, or Silver salmon, in the Pistol River are part of the Southern Oregon/Northern California Coastal Coho Evolutionary Significant Unit or ESU. These fish are protected under the federal Endangered Species Act as a threatened species. Coho salmon have a somewhat similar life history to fall Chinook salmon. The adults return from the ocean in the fall to spawn. They lay their eggs in redds utilizing smaller gravels than fall Chinook. However, coho salmon are smaller bodied fish than Chinook salmon and tend to migrate higher in the watershed. Their offspring occupy freshwater habitats, especially wetland and estuary areas while rearing for longer periods of time, often for a year or more.

Currently, the lower tributaries of Pistol River have the highest potential for coho salmon. However, "The most important factor limiting recovery of coho salmon in the Pistol River is a deficiency in the amount of suitable rearing habitat for juveniles. The processes that create and maintain such habitat must be restored by increasing habitat complexity within the channel, re-establishing off-channel rearing areas, restoring riparian forests, and reducing threats to instream habitat." (SONNC Coho Recovery Plan, Pistol River Section 12-8)."

The applicant has provided no proof that the proposed gravel mining operations in the lower Pistol River would not further impair habitats critical for the recovery of coho salmon. As suggested in the fall Chinook section, as an alternative to the current plan, there could be benefits to threatened coho

salmon if gravel extraction was focused in specific areas to increase the size, complexity, and connectivity of estuarine and floodplain habitats.

Winter Steelhead

Winter steelhead or seagoing rainbow trout return to Pistol River between November and April during higher winter flows. These fish typically spawn between March and May. Like salmon they lay their eggs in rock nests called redds. Unlike salmon, not all steelhead die after spawning. In coastal populations 30% or more of the fish spawn multiple times and these fish can live 7 years or more. Adult steelhead in the Pistol River average 8-12lbs with some individuals weighing 20lbs. Their juveniles emerge from the gravel in the summer and spend 1-3 years in freshwater before migrating to the ocean. As a result, these fish are very susceptible to habitat and water conditions. They also spend a great deal of time in the lower and estuary portion of the river.

On June 18th 2019 I snorkeled the river adjacent to the proposed gravel mining site and observed hundreds of juvenile steelhead rearing and feeding in the riffles and pools above the county bridge. These fish are likely to occupy this habitat throughout the summer until the river reconnects with the ocean in the fall. These fish would be directly impacted by summer gravel extraction, any water quality impacts, or potential spills from equipment. As mentioned in the other fish sections, steelhead would greatly benefit from restoration in the estuary that increased its size and habitat complexity.

Cutthroat Trout

Cutthroat trout, also known as harvest trout, are found in Pistol River's headwater areas as well as in the lower river, including the estuary. Some cutthroat, are sea-run fish, that spend a portion of their lives in the ocean. Cutthroat spawn in fall or spring, typically in small tributaries and their juveniles emerge in June or July. During my recent snorkel of the Pistol River adjacent to the proposed mining site, I observed nearly a dozen large sea-run cutthroat trout. Likewise, these fish would benefit from the estuary restoration as noted in the other fish species sections of these comments.

In Conclusion: Safeguard Our Community River and its Fish

In total, Pistol River supports ecologically and economically significant runs of wild salmon, steelhead, and trout species. Abiding by the guidance of land use agencies, conservation planning efforts, and research, issuing a conditional use permit to site a gravel mining operation in essential salmonid habitat that is directly in or adjacent to the Pistol River estuary is highly problematic for preserving the fish, wildlife, and drinking water values of our state and community.

As a free-flowing river with little development, Pistol River has enormous potential for supporting abundant runs of wild fish. Recent restoration efforts by community members and the watershed council and community support for headwater protection from hard rock strip mining demonstrates the importance of Pistol River, its clean drinking water, and native fish species to our community.

We believe that an alternative gravel extraction site, located upslope, developed in cooperation with local, state, and federal agencies and stakeholders could provide gravel resources, a net benefit to Pistol River and its fish or at minimum avoid additional degradation.

However, as originally stated in this comment, when we evaluate the site of the proposed gravel mining operation we find it impossible for the applicant to gravel mine within the median higher high water mark of this tidally influenced segment of the river without creating significant negative impacts to Chinook and threatened Coho salmon, steelhead, and trout and their habitats. As a result, we encourage the Planning Director and the Planning Commission to deny the conditional use permit unless the applicant can provide proof that gravel operations will not harm fish or their habitats.

Thank you for your review of this comment and your service to our community.

Respectfully,

A handwritten signature in black ink, appearing to read "Mark Sherwood". The signature is fluid and cursive, with the first name "Mark" and last name "Sherwood" clearly distinguishable.

Mark Sherwood, Executive Director

Becky Crockett

From: Bill Fowler <wrfowlerjr@gmail.com>
Sent: Thursday, June 20, 2019 6:26 AM
To: Becky Crockett
Subject: Pistol River gravel mining

To all that this may concern:

Lori and I are presently traveling abroad and are limited to respond properly. In addition, we have not received detailed information regarding the mining location, crushing plant and environmental impact data. Moving forward with assumptions:

Mining the lower river would have devastating impacts of the serenity of and raw beauty of the lower Pistol River area. With this said, it does appear that there is considerable buildup of gravel material that needs to be relocated to each side of the embankments in attempts to prevent further erosion. I am in favor of some removal of material for this reason. However, We are against any industrial mining, crushing and associated business activity. Such an operation would be unsightly, create considerable noise, create unhealthy dust pollution, disturb any contamination that may have been left behind from previous industrial activity and would not contribute to the community in any possible positive way.

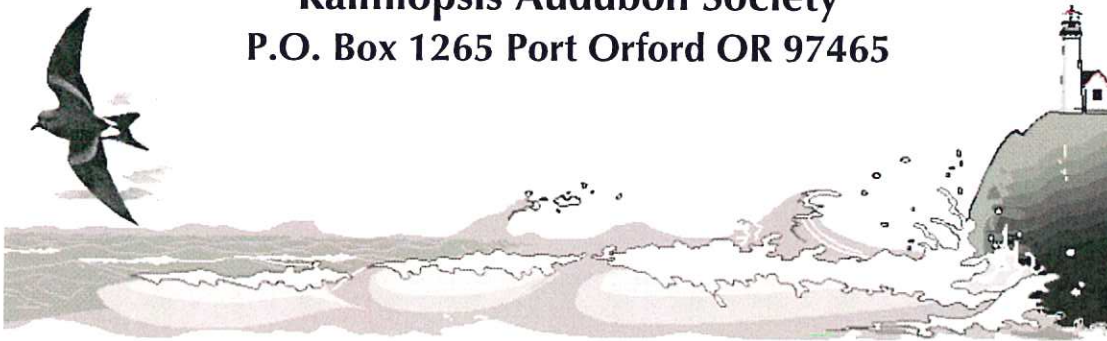
The area targeted provides an environment which many species of wild life frequent. Including but not limit to wild salmon, steelhead, cutthroat, elk, deer, bobcat, cougars and bear. Many residents choose this area for the rural nature that it presently provides.

Maintenance of the embankments?.....Yes. Industrial operations?.....NO, No, No!

If available, please provide any information that the mining folks have presented. It is unfortunate that we have not received any information on this until today.

Bill & Lori Fowler
541 373-0728

Kalmiopsis Audubon Society
P.O. Box 1265 Port Orford OR 97465



June 18, 2019

Curry County Planning Commission
c/o Curry County Planning Department
P.O. Box 746
Gold Beach, OR 97444

Dear Curry County Planning Commission members:

I am writing on behalf of the Kalmiopsis Audubon Society. Our locally-based organization has about 400 members in Curry County who have an interest in conservation of habitat for our local birds, fish and wildlife. We have concerns about the proposed Land Use Action (Application AD-1907) that would allow a conditional use permit for mining and processing aggregate on 2 parcels of land zoned Forestry/Grazing. I regret that I cannot attend your hearing in person so I request that you please consider these written comments.

We appreciate the applicant's stated interest to improve conditions of the lower Pistol River. The Pistol River has been designated a Critical Salmon Habitat by the Oregon Department of Fish and Wildlife (ODFW) and the National Marine Fisheries Service (NMFS, also known as NOAA Fisheries) and has important fishery values that must be taken into careful consideration, including habitat for threatened coho that use lower river and estuary reaches for migration and rearing.

We strongly encourage the applicant to consult not only with ODFW but also with the Army Corps of Engineers and NMFS early in the process to make sure the project can, in fact, be completed in a way that does not further degrade salmon habitat in the Pistol River estuary.

At this point, the project application to Curry County does not provide sufficient information for proper evaluation, but based on the site location at the upper end of the Pistol River estuary and the limited information provided and information derived from a previous proposal to extract gravel from this site (which was considered in 2003 and resulted in no gravel extraction), we are concerned that the proposed project will have unacceptable impacts to salmon.

Unclear gravel amount

There is no specific information within the application about how much gravel will be extracted each year. Only the staff report suggests that roughly 10,000 cubic yards will be removed. Is that in total over the 3-year permit period or for each year? That should be clarified.

To our knowledge there has been no gravel budget study completed for Pistol River. Without such a sediment study, there is no way to know if the river bed is aggrading or degrading. While the presence of new gravel may appear to indicate local accumulation, there are cases where river beds have been deeply lowered in the past, which results in incision and continually eroding banks. In these cases, building up of gravel bars may well be needed for restoration of hydrologic connections between the river and its floodplain and for restoration of meanders and deeper channels and pools that are needed by salmon.

If the operation extracts more gravel than is replenished, there would be environmental consequences in the estuary. In some places where gravel operations have removed more aggregate than a river could replenish, the river has scoured away at banks and bridge abutments or encouraged movement of gravel in unexpected ways (when winter floods come), resulting in high costs and damages to the public and to other downstream landowners. In the Pistol River, in the early 2000s, there was a gravel removal violation not far upstream from the proposed extraction site in which 25,000 cubic yards of gravel was illegally and improperly removed, which resulted in a side-channel being inadvertently filled in, destroying valuable rearing habitat for fish.

If a gravel study determines that there is sufficient aggregate to accommodate extraction, then there will need to be careful consideration of how the bar will be shaped and left after the gravel is removed.

Unclear method of gravel extraction

The application is also lacking in that there are no engineering drawings to show specifically where and how gravel will be removed and how the bar will be contoured at the end to minimize hydrological alterations and disruptions.

If the applicant intends to skim the bar in order to extract gravel, it could change the structure of the river channel in a subtle though significant way for juvenile salmon that rear in waters adjacent to and downstream from the extraction site. By lowering the level of the bar, the river will be made effectively shallower and wider. In the summer when flows are very low, this altered stream structure could lead to warmer water temperatures that could be too high for

juvenile salmon. If the applicant instead digs a deep trench to extract their gravel, the trench could cause the water table to bleed and drop, leading to lower water in the river.

The bottom line is that there are very specific details that must be considered to assure that the proposed operations will not be detrimental.

Although gravel was routinely removed from bars on small rivers like the Pistol in the past, that practice was curtailed in the late 1990s owing to research that showed impacts to salmon. The National Marine Fisheries Service (NMFS) in its National Gravel Extraction Guidance (2005) recommended removing gravel from upland sites and from large rivers rather with higher volume of gravel recruitment than from small rivers like the Pistol River.¹ The Pistol River drains an area of only 100 square miles and has a small annual mean flow. By comparison, the Rogue drains an area of 3,939 square miles (nearly 40 times larger than the Pistol!) while the Chetco drains an area of 271 square miles (nearly three times larger than the Pistol). Curry County already has significant gravel operations on our two largest rivers—the Rogue and the Chetco.

Habitat for threatened coho salmon in the Pistol River is already heavily impacted by altered sediment supply (with lots of fine sediments in gravels), lack of flood plain channel and structure, and lack of any riparian vegetation to provide shading and wood to the stream. Gravel mining could inhibit channel recovery by flattening the stream's profile upstream and downstream from the point of extraction.² That's why it's extremely important to have a specific and vetted plan and to implement it carefully.

Water quality considerations

We are concerned that gravel processing operations, described generally in the application as gravel crushing and washing, could degrade water quality if water for washing gravel is withdrawn directly from the river during the late summer period of low flows, a time at which the river is already stressed by degraded water quality. The application suggests that water is available onsite --but there is no information about how much water will be used and when.

This is especially important because the Pistol River has a unique estuary in that the river becomes bar bound for a couple of months each summer. During this time there is no tidal flushing and so the water temperature becomes elevated.

¹ *National Marine Fisheries Service, National Gravel Extraction Guidance*, 2005.

https://www.westcoast.fisheries.noaa.gov/publications/reference_documents/esa_refs/gravel_policy_2005.pdf (This useful guidance paper identifies important considerations and principles --in layman's terms-- for gravel extraction in salmon streams.)

² *SONCC Coho Recovery Plan*, 2015, pp. 12-1 - 12-8.

https://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/southern_oregon_northern_california/sonccfinal_ch1to6_mainchapters__1_.pdf

The state DEQ has identified the Pistol River as “Water Quality Limited” for temperature and dissolved oxygen. No uses that would further degrade water quality should be permitted.

Fishery considerations

The Pistol River hosts several salmon runs, including fall chinook and steelhead and sea-run cutthroat, and Southern Oregon Northern California Coastal (SONCC) coho. In the American Fisheries Society landmark study of Pacific salmon runs “Pacific Salmon at the Crossroads” (1991), the Pistol River Fall Chinook were considered a species of “special concern” and the Pistol River Coho were considered “at moderate risk of extinction.” In 1997, SONCC coho (of which Pistol River coho are a part) were listed as a federally threatened species.³

Salmonids use the estuary of the Pistol River at two times in their life histories, when they are heading upstream to spawn and when they are rearing as juveniles. This estuary habitat is particularly important for Chinook salmon juveniles that need to spend time smoltifying --to transition from freshwater to salt water —before they head out for the ocean phase of their lives. Salmonid juveniles are present in the river in the Pistol River estuary through the summer, including within the reach adjacent to the proposed extraction site. For this reason, it is critical to avoid impacts to the river during this period.

Owing to significant watershed restoration efforts, habitat in the Pistol River has been improving. In recent years, salmon have returned in greater numbers (coho after a 30-year absence!), and there is potential for the fish to thrive here once again. However, in this past year there were very poor returns, and poor returns are projected again for this coming year to the point that ODFW is not even allowing any fishing for chinook in the Pistol River. After expenditure of so many public funds to restore salmon in this watershed, we want to make sure that permitting gravel extraction on this small stream would not lead to any new obstacles for fish that would be counter-productive to ongoing restoration efforts.

It's important to note that although the proposed aggregate mining site is included in the Curry County Comprehensive plan as a potential site for mining of aggregate based on a past DOGAMI inventory, that inventory was conducted long before it became apparent that SONCC coho were at risk and listed as a threatened species in 1997 and long before the National Gravel Guidance for salmon streams was issued in 2005.

We believe that the burden of proof should be on the applicant to provide more specific information to show that salmon in the Pistol River will not be injured by the proposed aggregate mining.

Estuary considerations

We are concerned that the staff report does not adequately address concerns about the Pistol River estuary. The staff report describes the applicant's property as zoned FG, but there is a discrepancy that needs to be addressed. The Planning Commission should consider that at least

³ *SONCC Coho Recovery Plan*, 2015, pp. 12-1 - 12-8.

some portion of the property is located within the Pistol River estuary, which means it should probably be considered in the "Estuary Resource Zone," defined in the Comprehensive Plan as "all estuarine area within the coastal shoreland boundary from the head of tide to the mouth of the estuary, as defined in the Comprehensive Plan." The discrepancy is that the Comprehensive Plan has an outdated description of the head of tide as 1 mile from the river mouth (downstream from the site). However, it should be noted that local residents know that the tidal influence reaches far upstream of the county bridge, and DSL considers the head of tide as 1.4 miles from the river mouth.

According to the CCZO, "the Goal of the Estuary Resource Zone is to recognize and protect the unique environmental, economic, and social values of each estuary." The Comprehensive Plan identifies several important social and cultural values of the estuary including archaeological sites and recreational sport fishing, but the outdated plan also neglects to recognize the critical value of the estuary to Pistol River salmon runs. Certainly, the Pistol River estuary has unique values—from fisheries and bird habitat to scenic open space and cultural values—that could be affected by this proposal and that should be considered.

Bridge impact considerations

Because there is a bridge just downstream of the proposed gravel extraction site, there should be careful consideration of how the gravel extraction project might impact the bridge structure. In 2003, when gravel extraction was proposed at this same site, an engineer who had worked as a bridge inspector for the Forest Service in Washington and Oregon made a site visit to the bridge and found evidence of scouring downstream of the bridge piers at that time. The engineer recommended an assessment of scour problems and repairs of the bridge, and a scour analysis including modeling of the likely effects of gravel mining just upstream, in order to assure public safety and to protect public infrastructure investments.

In conclusion, because the impacts of gravel mining operations on rivers, especially small salmon streams such as the Pistol River—can be inadvertent yet long-term and irrevocable, this is a matter for very careful consideration.

We appreciate that the Curry County staff report has identified several important matters yet to be addressed.

Given what will likely be unacceptable risks to salmon in the small Pistol River watershed, ***we urge the Planning Commission to deny this permit —unless the applicant can provide proof that the proposed aggregate removal will not be damaging to salmon or salmon habitat.***

If you choose to approve this permit, we urge that you require ALL the conditions of approval recommended by staff.

If water is to be removed from the Pistol River, we urge an additional condition that the applicant show consultation with Oregon Water Resources Department requirements and compliance with their requirements.

Thank you for considering our comments and for your public service to Curry County.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ann Vileisis".

Ann Vileisis
President, Kalmiopsis Audubon Society

Becky Crockett

From: Cameron La Follette <cameron@oregoncoastalliance.org>
Sent: Thursday, June 20, 2019 1:59 PM
To: Becky Crockett; Nancy Chester
Cc: Sean Malone
Subject: ORCA Testimony, AD-1907, Adams gravel mining application
Attachments: Pistol River Action Plan 2001.pdf; ATT00001.htm; Pistol River SONCC Plan.pdf; ATT00002.htm; Pistol River USFS Watershed Assessment 1998.pdf; ATT00003.htm; ORCA to Curry PC re Adams Pistol River Mining June 19.pdf; ATT00004.htm

Dear Curry County,

Attached please find the testimony of Oregon Coast Alliance on AD-1907, the application by Ronald Adams to mine gravel on the Pistol River. There are also three other attachments: the Pistol River Watershed Action Plan, the USFS Pistol River Watershed Analysis, and the Final SONCC Coho Recovery Plan for the Pistol.

Please note that we have requested the record be left open for **fourteen days** in order to have more time to review documents and testimonies.

Please place this testimony in the record for this matter. Please also let me know you received this testimony and were able to open all four attachments and place them in the record.

Thank you,

Cameron
—

Cameron La Follette
Executive Director
Oregon Coast Alliance
P.O. Box 857
Astoria, OR 97103
(503) 391-0210
cameron@oregoncoastalliance.org
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seanmalone8@hotmail.com

June 20, 2019

Via email

Curry County Planning Commission
c/o County Planning Department
94235 Moore St.
Gold Beach, OR 97444
541-247-3228

RE: ORCA testimony on AD-1907, Adams Conditional Use
Application to Mine for Gravel

Dear Members of the Planning Commission,

On behalf of Oregon Coast Alliance (ORCA), please accept this testimony on AD-1907, a proposal to mine gravel under a conditional use application. Oregon Coast Alliance is an Oregon nonprofit corporation whose mission is protection of coastal natural resources and maintenance of community livability.

At the outset, there is so little in the way of information submitted in support of the application, that it is impossible to accurately understand the scope of the proposal (e.g., the duration and maximum amount of gravel to be removed, as well as how that removal is estimated) and the effects (e.g., the application contains no expert reports regarding noise, dust, and so forth. The Curry County Zoning Ordinance (CCZO) requires that “[p]lans and specifications submitted to the Commission for approval must contain sufficient information to allow the Commission to review and set siting standards related to,” amongst others, the “[i]mpact of the proposed use on surrounding land uses in terms of Department

Environmental Quality standards for noise, dust, or other environmental factors.” CCZO 7.040(10)(1). Simply put, this is one of the most sparsely supported applications I have ever reviewed.

The applicant alleges that dust will be minimal without any supporting evidence or rationale. This finding is not supported by substantial evidence. Dust is a well-known product of gravel mining, and there is no expert report in the record to demonstrate how much dust will be produced by the proposed use. Moreover, the inquiry must be in relation to DEQ standards, which have not been discussed.

The applicant alleges that noise will be minimal without any supporting evidence or rationale. The applicant also alleges that there are no buildings within 500 feet of presumably the edge of the property but fails to demonstrate how 500 feet distance satisfactorily mitigates the noise levels at issue, which are wholly unknown. Moreover, the inquiry must be in relation to DEQ standards, which have not been discussed.

The applicant makes numerous claims about how the application is “mostly positive,” but the applicant does not demonstrate that the applicant has expertise in areas such as fish habitat, rise in water temperatures, algae growth, oxygen levels in water, and so forth. The Pistol River is severely abraded and eroded in this area, and yet the applicant has not set forth any information as to whether the gravel mining will worsen the situation or contribute to recovery. CCZO 7.040(10)(2) requires sufficient information to determine the “[t]he impact of the proposed use on water quality, water flow, or fish habitat on affected rivers or streams.”

The staff report, merely quoting the applicant, nevertheless acknowledges that “[t]he waterway of this area of Pistol River has been in disarray for many years. The river has eroded hundreds of feet of river bottom away on the south side of the river causing it to fan out, many times its natural width, that’s causing water temperatures to rise, which kills fish, algae growth, which lowers oxygen levels in the water and removes safe fish habitat.”

The applicant, however, only alleges that gravel mining on top of the deleterious present state of the river will be “positive.” Again, the application lacks anything meaningful in terms of analysis to support the notion that the mining would be “positive.” There is no gravel budget demonstrating the amount of gravel available for mining on the Pistol, no information on the proposed

method of gravel removal, no mention of the timing of gravel removal, nor even the amount of gravel to be removed.

The Pistol River also contains SONCC coho and chinook salmon, and the lack of an adequate floodplain and channel structure are persistent problems in the area. There is high “intrinsic potential” for salmon in the Lower Pistol (i.e., the area of the proposed gravel mining). *See* p. 12-4, Pistol River SONCC plan. In 1997 the SONCC coho were placed on the Endangered Species List, which creates a greater burden on the county to deny projects that will impact coho habitat. The applicant has not demonstrated how mining and other possible activities will affect salmon. Indeed, the applicant cannot know the impact arising from a proposal with an unknown scope and duration. Clearly, the impact of the gravel operation on salmon must be addressed under CCZO 7.040(10)(1), and an analysis of such impacts would require a professional opinion. The applicant has not professed any particular or specialized knowledge related to impacts of gravel mining on salmon.

Under CCZO 7.040(10)(3), the applicant must submit sufficient information to allow the decision-maker to understand “[t]he impact of the proposed use on overall land stability, vegetation, wildlife habitat, and land or soil erosion.” Again, there is no expert report. The mere vague conjectures of the applicant assert unsubstantiated claims. He does not cite the U.S. Forest Service Pistol River Watershed Analysis of 1998, which describes in detail the Pistol’s problem with excessive sediment production from timber-cutting, roads and related landslides (*see* pp. 2-3). Nor does he cite the Pistol River Watershed Action Plan of 2001, which contains a watershed assessment and specific action items to increase watershed health. Even in 2001 it was noted that the Pistol was on the 303(d) list for temperature impairment, and conditions may have worsened since that time. Limiting factors for fish and water quality continue to include sediment sources and transport, as both documents indicate, which this application for instream gravel mining will only exacerbate.

The County cannot simply defer findings under CCZO 7.040(10) because permits are necessary from other agencies. The County must make actual findings, not just repeat the baseless claims of the applicant. It is clear the gaps are many and substantive, in both the application and the county’s staff report.

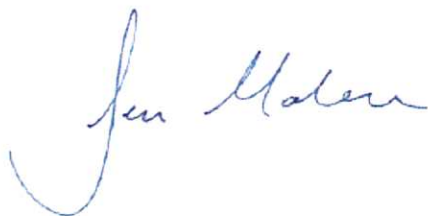
The proposed findings for CCZO 7.040(10)(7) are wholly inadequate because conflicts exist (not the least of which is impacts to water quality and fish habitat), yet they are dismissed because the applicant owns some of the

surrounding property. The applicant does not own the beds of the river; those are held in trust for the public, yet no alternative sites have been proposed and no ESEE analysis has been undertaken. Again, there is simply too little provided to satisfy the criteria and allow such an intensive use.

As this is the initial hearing, Oregon Coast Alliance requests the record be left open for **fourteen days** in order to respond to public comments and conduct further research on the matter.

For the foregoing reasons, the application must be denied.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sean Malone". The signature is fluid and cursive, with a large initial "S" and "M".

Sean T. Malone

Attorney for Oregon Coast Alliance

Cc:
Client

Attachments:

Pistol River Watershed Analysis 1998

Pistol River Watershed Action Plan of 2001

Final SONCC Coho Recovery Plan, Pistol River Population, 2014

PISTOL RIVER WATERSHED

ACTION PLAN



Prepared for

The Pistol River Watershed Council

Prepared by

Chris Massingill
Mainstream Contracting
South Coast Watershed Council

September 2001

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ABSTRACT

The *Pistol River Watershed Action Plan* was prepared for the Pistol River Watershed Council whose members are dedicated to sustaining the health of their watershed. This document utilizes detailed information about the Pistol River watershed from the *Pistol River Watershed Assessment* which followed guidelines described in the *Governor's Watershed Enhancement Board's 1999 Draft Oregon Watershed Assessment Manual*. Funding was provided by the Oregon Watershed Enhancement Board, Oregon Department of Environmental Quality, United States Bureau of Land Management, Oregon Department of Agriculture, Curry County Soil and Water Conservation District and Oregon State University Extension Service.

ACKNOWLEDGEMENTS

The completion of the Pistol River Watershed Action Plan was accomplished through the combined effort of private citizens, watershed council members, contracted technical specialists, and local state and federal government agencies. The South Coast Watershed Council would like to thank the following people who generously provided time and energy to improve the quality of this Action Plan. Additional people helped whose names are not included below. We also acknowledge them.

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WATERSHED ASSESSMENT SUMMARY

The following is an abbreviated summary of a much larger, in-depth watershed assessment available from the South Coast Watershed Office.

INTRODUCTION

The Pistol River watershed drains approximately 67,275 acres or 105 square miles of land. Pistol River, situated entirely within Curry County, is an average size watershed on the southern Oregon coast. Flowing in a westerly direction Pistol River crosses Highway 101 and drains into the Pacific Ocean about ten miles south of the community of Gold Beach. Elevations in the watershed range from sea level to approximately 4,220 feet on Snow Camp Mountain. Major tributaries include the North Fork, East Fork, and South Fork. The upper portion of the watershed is characterized by steeply sloped forested areas with narrow valleys and tributary streams that have moderately steep to very steep gradient. Grazing, rural residential development and other agricultural uses are dominant in the lower portion of the watershed. Over 55% of the watershed is in public ownership.

History

Most Curry County watersheds have received varying impacts from Euro-American populations during the past 150 years (1850 – 2000). The general landscape pattern for Curry streams and rivers is: timber in the uplands (on public & private industrial timberlands) flowing into broader floodplains of the lowlands, where agriculture and some rural residential use predominates. Pistol River tributaries (Crook Creek, Deep Creek, South Fork Pistol) were especially productive for salmon and steelhead. The Pistol River watershed was extensively logged in the 1920's and 30's and again in the 1950's and 60's. This activity occurred before the enactment of the first Forest Practices Act in 1972, so there was widespread erosion, turbidity, and sedimentation from these activities. At one time there were six active lumber mills in the Pistol River area; a series of dairies in the lowlands; and a cheese factory.

Watershed Issues

The Pistol River Watershed Council identified the following issues of concern related to land use; timber harvest (riparian vegetation loss, sedimentation, and herbicides), livestock grazing, and nickel mining in a small area of the North Fork.

Ecoregions

Southern Oregon Coastal Mountains make up 14 percent of the watershed with steep to very steep gradients, high rates of erosion, and high stream densities. Rainfall averages 79-140" per year. High winds, landslides and fires are expected natural disturbances.

The Coastal Siskiyou make up 82 percent of the watershed, with habitat very similar to Southern Oregon Coastal Mountains. Coastal Uplands cover less than 1 percent of the watershed and roughly follow the historic Sitka spruce distribution. High and low gradient habitats are present, with slow moving earthflows common on the hillslopes and many beaver expected in the low gradient streams

Channel Habitat Types

In the Pistol River watershed, 103 miles of stream were classified for channel type. Just over 13 miles were rated as highly responsive/sensitive channel types, including estuary channels, flood plain channels, and moderately confined reaches. Low gradient/moderate confinement (LM), and moderate gradient/moderate confinement (MM) reaches are the most responsive to habitat enhancement activities. Eleven miles of low gradient confined channels were identified, though the confining feature (terrace or hillslope) is not known.

Fish and Fish Habitat Assessment

Aquatic habitat surveys in the Pistol River watershed include the Mainstem and South Fork Pistol in 1991; and Bull Gulch, Deep, Farmer, Koontz and Davis, Scott and Sunrise creeks in 1995. 1991 ODFW surveys lack riparian conifer data as well as "key pieces" of large wood data. Large riparian conifers were not found in the 1995 surveys. Pool quantity is moderate, though simplified pools are a concern. Riffle habitat for spawning is generally moderate. Large wood values are less than adequate for all surveyed reaches, except Bull Gulch reach 2 and South Fork reach 7.

Chinook distribution covers all of the Mainstem Pistol, up to 2/3 of the Sunrise Area, approximately half of the South Fork, and the lower portions of several Mainstem Pistol tributaries. No use is reported on the Upper Pistol and East Fork. Coho distribution is similar to chinook with less use of the South Fork and no use of the Sunrise Area tributary. Steelhead utilize nearly all of the Mainstem, all of South Fork Pistol, one-third of the North Fork, one-third of the East Fork, and all three major mainstem tributaries.

One adult migration barrier, one uncertain adult restricted barrier, and one juvenile barrier are recorded. Hatchery influence was considerable until 1995.

Water Quality Assessment

Water quality is moderately impaired for phosphate and fecal coliform bacteria at Pistol River Loop Road. The Pistol River Mainstem is listed on the 303(d) list for water temperature from the mouth to the headwaters. Temperatures range from the mid to high 60's in the mainstem Pistol above East Fork, the East Fork, North Fork and Deep Creek. Temperatures range from high 60's to low 70's in the mainstem Pistol above the South Fork, Crook Creek, and the South Fork Pistol. Temperatures range from mid to high 70's at the ODFW trap on the mainstem Pistol.

Riparian (Shade) Assessment

Highest potential increases in shade are in Crook Creek, 4th and 5th order South Fork reaches, 5th order Deep Creek reaches, and the Pistol Mainstem reaches. Of the 300 miles of shade assessed, 82 miles have alder/hardwood shade, 16 miles have brush, 6 miles have pioneer vegetation, and 29 miles have high reproduction or mature timber stands.

Wetland Characterization and Functional Assessment

Approximately 177 acres of wetlands (23 wetlands) are found in this watershed. Most have been highly altered and are buffered by either agricultural or rural land use. Most

are connected to another waterbody, and all are located in the Lower Mainstem subwatershed. Assessments were conducted using aerial photographs and field visits are need for confirmation.

Hydrologic Condition Assessment

This assessment is based on runoff estimates for various landuses and soil cover conditions. Peak flow enhancement is an increase in the strongest, and potentially most destructive, part of the flood curve.

The hydrologic assessment of the Pistol watershed rated all watersheds as low risk for peak flow enhancement (PFE) due to timber harvest (rain-on-snow interaction) and forest roads. Risks of PFE due to agricultural use are moderate to low, in those subwatersheds with significant agricultural use. Rural roads pose a high risk (very small acreage) in the Glade and Deep Area, and low risk in the Lower Pistol and South Fork Pistol subwatersheds. All of the roads rankings need to be re-assessed to incorporate revised road data. Flow alteration, road drainage and ditched/drained wetlands, is not addressed in this assessment.

Water Use

In the Pistol watershed, most of the water rights are junior to the 1964 in-stream rights. All subwatersheds are slightly over-allocated from April to October. Pistol River Mainstem is rated a priority streamflow restoration area. Crook Creek has the greatest potential for reduction of consumptive use (restoration of in-stream flows) through conservation and best management practices.

Sediment

The assessment of sediment process in the Pistol River focuses on the density of roads built on slopes greater than 50 percent, and the density of stream/road crossings. These rankings are relative to all South Coast subwatersheds.

Lower Pistol Mainstem, South Fork, and the Sunrise area are ranked low density for roads on steep slopes. Glade and Deep Area and the North Fork are ranked low to moderate density.

The Sunrise Area, North Fork, and South Fork are ranked moderate density for stream crossings. Glade and Deep Area and the Lower Mainstem are ranked moderate to high density.

Pistol River Synthesis

The Pistol River watershed has a mix of ecoregions including the Coastal Siskiyou, Southern Oregon Coastal Mountains, Coastal Uplands and Coastal Lowlands, with a very small portion of Serpentine Siskiyou in the East Fork. All but the Coastal Lowlands have steep hillslope gradients and high natural sediment loads. Over 55 percent of the Pistol watershed is publicly owned.

The lower end of the Pistol near Highway 101 crossing has been straightened and rip-rapped. Hardwood forests dominated the bottomlands in the past. Logging was very heavy in the 1950's and 60's.

Sediment sources and transport are a large concern in the Pistol watershed. Extremely steep gorges, low to moderate densities of roads on steep slopes in Glade and Deep Area, and moderate to high densities of crossings in Glade and Deep Area and the Lower Mainstem all contribute to sediment instability. A high concentration of these roads is in the Deep Creek watershed. Debris flows that alter riparian vegetation and channel structure were most recently triggered in the upper mainstem and South Fork by the November 1996 storm.

The East Fork and Upper Mainstem Pistol have an unknown level of risk of peak flow enhancement (PFE) due to rain-on-snow events relative to timber harvest. Forest roads pose little risk of PFE, and risks due to agricultural use are moderate to low. Risk of PFE is high due to rural roads in the Glade and Deep Creek Area.

Channel habitat typing on non-USFS lands revealed a very high number of stream miles in hillslope confined channels (natural), over thirteen miles in highly sensitive stream types (to disturbance as well as restoration), and eleven miles of low gradient confined (LC) reaches. Most of the LC reaches are in the Glade and Deep Area, South Fork Pistol, and Sunrise Area.

Anadromous fish use all but the upper subwatersheds, with chinook in the mainstem Pistol, half of the South Fork, and the lower mile of Deep Creek. Coho distribution is similar, with less use on the South Fork and some mainstem tributaries. Steelhead use all the tributaries, major and minor, as well as the mainstem itself. Three barriers are reported. Stream habitat surveys in 1991 and 1995 indicate moderate pool and riffle habitat, and poor wood levels for all but one reach in Bull Gulch and the highest reach of the South Fork.

The Pistol Mainstem has about ten miles of large wood production potential, ten miles on the South Fork, seven miles on Sunrise Creek, and 2 miles on the North Fork. The highest potential increases in shade are on the North Fork Mainstem (5 miles at 19%), Crook Creek in 1st, 2nd, and 4th order reaches (12-16%), and the South Fork 4th and 5th order reaches (11-15%).

Water use is not a large issue in the Pistol River. Nearly all of the out-of-stream rights are junior to the large in-stream right which is usually not met.

Pistol River is on the 303(d) list as impaired for temperature from mouth to headwaters and is being investigated for flow modification and sediment concerns. Deep Creek is also being investigated for sedimentation. Temperatures (7-day maximums) are in the mid 70's, with the South Fork as the warmest tributary and Deep Creek as the coolest. Biological oxygen demand is the highest of any South Coast stream, but it has the second best water quality of South Coast streams. All the wetlands in the Pistol watershed are in the Lower Mainstem. Approximately 177 acres are identified with a wide range of alteration, restoration potential and surrounding land use.

Limiting factors to fish production and water quality in the Pistol watershed appear to be: sediment sources and transport, especially in Deep Creek and the South Fork Pistol, the lack of large wood to moderate sediment movement, and simplified and reduced estuary/wetland habitat in the lower end.

SUBWATERSHED SUMMARIES

Lower Pistol Mainstem

The Lower Pistol Mainstem is made up of four ecoregions: mostly Coastal Uplands with low gradients, Southern Oregon Coastal Mountains with high gradients and erosion rates, Coastal Uplands and Coastal Siskiyou. Land use is 65 percent forestry and 34 percent range/agriculture. The lower end of the mainstem has been straightened. construction of Highway 101 has stopped natural channel migration across the lower floodplain. The estuary becomes bar-bound at certain times of the year.

Channel habitat types are mixed between hillslope-confined reaches (mostly tributaries) and highly responsive/sensitive reaches. Two barriers are recorded in this subwatershed, and are both on tributaries. Chinook, coho and steelhead use the mainstem and Crook Creek. Habitat surveys in 1991 recorded high bank erosion, good pool area and frequency, good to moderate riffle habitat, and poor levels of large wood.

The entire Mainstem Pistol is listed as temperature limited and is being investigated for flow modifications and sediment concerns. Temperatures are in the mid 70's. Water quality is rated as moderately impaired for phosphate and fecal coliform bacteria, as measured at Pistol River Loop Road.

Riparian vegetation provides good cover in stream orders 1-4, with an 11 percent potential increase in shade on the mainstem. Most of the riparian areas for the entire watershed are dominated by alder stands (approx. 25 miles), though 15 percent of the watershed has high reproduction and mature conifer forest within the riparian area. All 177 acres of wetlands identified in the Pistol watershed are located in this subwatershed, and have a wide mix of conditions and buffers.

Hydrologic assessment rated the Lower Mainstem as low risk for peak flow enhancement (increased stream power) due to timber harvest, forest roads, and rural roads. Risk is rated as moderate to low for agricultural use.

All water rights allocated in the Pistol River are junior to the 1964 in-stream right. Water use is not a large concern here, as total withdrawals are minor.

Sediment assessment ranked the Lower Mainstem as low density for roads on steep slopes and moderate to high density for stream crossings, when compared to all South Coast subwatersheds.

Glade and Deep Area

The Glade and Deep Area subwatershed is mostly contained within the Southern Oregon Coastal Mountains ecoregion (59 percent) with Coastal Siskiyou making up the remaining 41 percent. Ninety-nine percent of land use is forestry, and nearly all of the subwatershed is in private ownership.

Channel habitat types show a majority of hillslope confined reaches (16 miles), 1.5 miles of highly responsive/sensitive reaches, and 4 miles of low gradient confined reaches. Fish habitat data from 1991 reports high levels of shade, low bank erosion, moderate to good pool habitat, moderate to good riffle habitat and poor levels of large wood. Coho, chinook and steelhead use the Mainstem Pistol and Deep Creek. One barrier is identified on a north tributary.

Deep Creek has high potential increases in shade on 5th order reaches (14%). The Mainstem Pistol shows an eleven percent potential increase in shade. Deep Creek has very little conifer shade.

The Glade and Deep Area is rated as low risk for peak flow enhancement (increased stream power) due to timber harvest and forest roads. Estimated risk is moderate for agricultural use (very small area), and high for rural roads.

Crossings are more concentrated within the Deep Creek subwatershed, and past logging practices produced large volumes of sediment. Analysis of roads rated the Glade and Deep Area as low to moderate density for roads on steep slopes and moderate to high density for stream crossings, when compared to all South Coast subwatersheds.

The Sunrise Area

The Sunrise Area subwatershed is contained mostly within the Coastal Siskiyou ecoregion, with less than 20 percent in the Southern Oregon Coastal Mountains. The US Forest Service manages the upper portion of the sub-watershed. All land use is forestry.

Channel habitat types are less than favorable with 22 miles confined by hillslopes (natural), less than a quarter mile in highly responsive/sensitive reaches, and more than four miles in low gradient confined reaches. More information is needed to assess the type and level of confinement. A 1995 survey of the lower 1700 meters of Sunrise Creek

reported high shade, a lack of riparian conifers, moderate pool and riffle habitat quality, and low levels of wood. A large source of wood (52% high/mature forest) is available in upper Sunrise Creek, but is prevented from coming into the mainstem Pistol by a natural feature. Sunrise Creek shows a ten percent potential increase in shade on its mainstem reaches.

This section of the mainstem Pistol gains 2-4 degrees in temperature from top to bottom. Mainstem temperatures range from high 60's to low 70's.

Assessment of hydrology rates the Sunrise Area low risk for peak flow enhancement (increased stream power) due to timber harvest and forest roads. Agricultural use and rural roads are not an issue here.

The Sunrise Area ranked low density for roads on steep slopes, when compared to all South Coast subwatersheds, and moderate density for stream crossings. Sediment sources in Sunrise are a concern, as are channel responses to sediment on the mainstem above the South Fork.

South Fork Pistol

The South Fork Pistol is contained almost entirely within the Coastal Siskiyou, with only three percent of its area in the Southern Oregon Coastal Mountain ecoregion. Land use is almost entirely (97%) forestry. A quarter of the subwatershed is in public ownership.

Channel habitat types show a large number of hillslope confined miles, approximately 5 miles of highly responsive/sensitive reaches, and 3 miles low gradient confined. Habitat surveys in 1991 reported good shade, moderate pool habitat, mixed ratings for riffles, and poor wood levels.

Chinook and coho use the lower end of the South Fork, and steelhead use most of the length of the South Fork. No barriers are recorded.

The South Fork is the hottest tributary to the Pistol River, with temperatures in the low 70's. Surveys of stream shade show high potential increases in 4th and 5th order reaches. Seventeen percent of stream miles are bordered with high reproduction and/or mature conifer forests.

The South Fork is rated as low risk for peak flow enhancement (increased stream power)s due to timber harvest, forest roads and rural roads. Risk is moderate for agricultural use, though only a very small area (3.5%) is represented.

Movement of sediment is a concern in the South Fork, with several tributaries adding significant amounts. The South Fork ranked low density for roads on steep slopes when compared to all South Coast subwatersheds, and moderate density for stream crossings.

North Fork Pistol

The North Fork Pistol is nearly all contained within the Coastal Siskiyou, with only 5 percent in the Southern Oregon Coastal Mountains. All land use is forestry. The US Forest Service manages the majority of the subwatershed.

Channel habitat typing is only done on non-USFS lands and is very limited for the North Fork. Of the miles assessed, 2 miles are confined by hillslopes, 1.3 miles are highly responsive/sensitive reaches, and 0.2 miles are low gradient confined.

Chinook and coho use only the lowest portion of the North Fork, with steelhead extending into approximately a third of the North Fork mainstem. Temperatures at the mouth are in the high 60's. Riparian shade shows high percentages of potential increases on the Mainstem North Fork (19%), and on 3rd order streams (10%).

This subwatershed is rated as low risk for timber harvest and forest roads. It is not rated for agricultural use or rural roads. Some high runoff serpentine soil types are present in the upper portions of the west side. The small area of private land in the North Fork assessed for sediment ranked moderate density for roads on steep slopes and moderate density for crossings when compared to all South Coast subwatersheds.

East Fork and Upper Pistol

The East Fork and Upper Pistol subwatersheds are contained within the Coastal Siskiyou ecoregion with four percent of Serpentine Siskiyou in the East Fork. Both sub-watersheds have forestry land use and are in the National Forest.

No barriers are identified and anadromous fish use is only steelhead in the lower portions of the subwatersheds. Temperatures range from mid to upper 60's.

These two sub-watersheds have an unknown risk of peak flow enhancement (PFE) due to timber harvest in relation to rain on snow events. They both have considerable areas at high elevation, but more information is needed for adequate assessment. Forest roads pose low risk to PFE and rural roads were not an issue.

Action Items

This list is a product of a synthesis process by natural resource specialists with extensive experience on the South Coast, who reviewed and discussed the watershed assessment for Pistol River. Input from watershed councils is also incorporated. Actions are focused on addressing limiting factors and are listed in order of relative importance, based on the impressions of the resource specialists. For a more complete list of restoration, protection, outreach and assessment activities, refer to the Curry Action Plan. All action items are voluntary, with complete respect for private property rights.

1. Restore/explore wetlands connections (Crook Creek, oxbows).

Field check all wetlands listed in the Wetland Assessment and assess for functionality.

Where possible, protect intact wetlands.

Where possible, restore function, connection to a water body and potential vegetation in less than intact wetlands.

2. Determine impact of sediment on potential planting projects (South Fork and Mainstem).

Identify sediment transport and storage reaches on the South Fork and Mainstem Pistol.

Determine channel stability relative to potential planting projects.

3. Riparian silviculture for shade and large wood recruitment

Plant riparian vegetation for shade and large wood values, where appropriate and with proper protection.

Encourage natural conifer regeneration where possible

Convert alder dominated stands to conifer, where appropriate

4. Large wood for sediment moderation

Identify reaches where wood is critical to stabilizing sediment, especially in tributaries and the upper South Fork.

5. Propose an interpretive site at Pistol River School for education/outreach.

6. Water quality monitoring

Institute water quality measurements in addition to temperature, to identify limiting factors and provide feedback on restoration efforts.

7. Explore road abandonment in the North Fork Pistol (access easements with Forest Service)

8. Road surveys in the South Fork

Assess South Fork subwatershed roads and crossings for suitability, design, and probability and consequences of failure.

9. Conservation easements

Obtain riparian conservation easements where available.

10. Re-examine current water quality data, including other sources if available.

11. Encourage off-stream watering for livestock wherever possible.

PISTOL RIVER WATERSHED ANALYSIS

ITERATION 1.0

September 15, 1998

I have read this analysis and find that it meets the Standards and Guidelines for watershed analysis required by the Northwest Forest Plan Record of Decision dated April 1994.

SIGNED _____ DATE _____

District Ranger
Chetco Ranger District
Siskiyou National Forest

PISTOL RIVER WATERSHED ANALYSIS

Iteration 1.0
September 15, 1998

Introduction

The Pistol River Watershed Analysis, Version 1.0, was initiated to obtain and document information on the aquatic, terrestrial, and social resources of the watershed. The information gathered and analyzed will be used to guide future resource management. It will also be used to ensure that Aquatic Conservation Strategy objectives and other Standards and Guidelines contained in the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (ROD, 1994) will be met.

The watershed analysis was completed by an interdisciplinary team using the six step process outlined in *Ecosystem Analysis at the Watershed Scale (Version 2.2, August 1995)*. The analysis is documented in sections: the Aquatic Ecosystem, the Terrestrial Ecosystem, and the Social Aspects of the Watershed.

Pistol River Watershed

The Pistol River is located in the Klamath Mountain Province in southwestern Oregon (see Vicinity Map). The Pistol River drains into the Pacific Ocean, with the mouth of the river located between Brookings and Gold Beach. The watershed has 67,172 acres, 52% of which is on the Chetco Ranger District of the Siskiyou National Forest. The remaining 48% is divided among the Bureau of Land Management, the State of Oregon, and private landowners (see Ownership Map).

Table 1: Land Ownership

Ownership	Acres	Percent of Watershed
USDA Forest Service	35,097	52
Private	28,869	43
USDI Bureau of Land Management	3,060	5
State of Oregon	147	0.2
Total	67,172	100

The Siskiyou National Forest land management direction is provided by the Siskiyou Land and Resource Management Plan (Forest Plan, 1989) as amended by the Record of Decision and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl (ROD, 1994). Allocations for the National Forest System lands within the Pistol River watershed are listed in Table 2. The definitions and management strategy for these allocations can be found in the ROD and in the Forest Plan (see Management Area Map).

Table 2: Management Allocations

Allocation	Acres	Percent of NF Land
Botanical	473	1
Unique Interest	43	0.1
Backcountry Recreation	2,245	6
Late Successional Reserves	11,298	32
Special Wildlife Site	654	2
Riparian Reserves	4,122	12
Matrix	16,264	46
Total	35,097	100

AQUATIC ECOSYSTEM NARRATIVE

Geologic Characterization

The Pistol River is part of the Klamath Mountains geologic province and includes a mixture of igneous, metamorphic, and sedimentary formations (Irwin 1966, Dott 1971, Jones and Ferrero 1990, quoted in Russell 1994). Primary geologic units include Dothan and Colebrook formations (see Geology Map, from 1991 Geologic Map of Oregon). The Dothan formation dominates the basin and consists of mudstones, sandstones, shales, and undifferentiated volcanics from the Jurassic period. They are similar to the California Franciscan formation. Soils in mudstone, siltstone and shale units tend to be deep (> 1 m), silty and clayey, and poorly drained. Soils on sandstone tend to be sandy and well drained and of medium depth (0.5 to 1 m) on slopes and thin (0 to 0.5 m) on ridges. Dothan volcanics form outcrops or thin, rocky soils. The Colebrook formation, also Jurassic, consists of low-grade metasediments and metavolcanics, predominantly schist and phyllite with abundant quartz. Soils are generally thick on moderate hillslopes and thin in steeper inner gorge and stream-adjacent slopes. Colebrook soils are generally resistant to erosion on gentle slopes but are highly erodible on the steep inner gorges of stream channels. Cretaceous sediments have been mapped in the eastern part of the basin around Windy Valley and Windy Creek. Serpentinized peridotite dominates the upper slopes of the North Fork Pistol landscape although Colebrook schists make up the inner gorges.

What erosion processes are dominant within the watershed?

Natural Processes

Several major fault zones have been mapped in the Pistol River watershed and include north-south trending, high angle reverse, and low angle thrust faults. These faults form contact shear zones which subsequently act as groundwater conduits and form deep, sheared saturated soils. These areas are unstable when combined with steep slopes, and are an important source of sediment to Pistol River.

Mass movements in the watershed are concentrated in the inner gorges and tributary headwalls underlain by Colebrook schist and Dothan mudstone, siltstone, and sandstone units and in contact zones. Landsliding is most prevalent in these over-steepened areas due to saturation as well as groundwater outflow along faults and contact zones. According to Jones and Ferrero (1990), saturation by groundwater is a major cause of mass movement in all rock types, soils, and slopes within the watershed.

Human activities affecting erosion processes

Numerous studies have shown that road construction and timber harvest can increase sediment delivery to streams. A master's thesis (Russell, 1994) examined sediment production and delivery rates specifically in the Pistol River watershed. The estimated sediment production included all lands (private, State of Oregon, Bureau of Land Management, and National Forest) within the watershed for the period 1940-1991. The thesis found that roads within the watershed produce sediment at a rate 32 times that of surrounding undisturbed forest lands.

The thesis also found that timber harvest had increased sediment production rates by 2.8 times that of surrounding undisturbed forest lands. Typically, riparian buffers were not used in harvest areas on National Forest System lands until the mid 1980's. Within the Pistol River watershed, landslide sediment delivery is highest along slopes adjacent to streams (Jones and Ferrero, 1990), particularly when they have been harvested.

Information Needs Sites of specific management-related sediment sources.

Management Opportunities Stormproof or decommission roads that have a high potential for sediment delivery.

What are the dominant hydrologic characteristics and processes?

The Pistol River watershed receives an average annual precipitation ranging from 90 inches near the mouth to 130 inches near the headwaters at Snow Camp. Most of the watershed is within the rain-dominated zone, much of it is within the transient snow zone, and a small portion in the vicinity of Snow Camp (elevation 4221 feet) is within the snowpack zone. Winter storms bring high flows and the transient snow zone contributes to even higher peak flows when warm rains melt an existing snow pack. In sharp contrast to high winter flows, early autumn brings low flows at the end of a dry summer. Many of the upper slope streams do not have surface flow during this time. Small springs are scattered across the basin but do not provide enough surface flow during the dry season to be significant at the watershed scale. However, where they occur they provide significant local relief from the otherwise dry summer environment.

There is no streamflow gage on the Pistol River, but a staff gage can be seen on the abandoned bridge abutments in the lower channel. It is unknown whether or not there are records of stages or corresponding flows at this spot. Flood events on the Pistol River were reported in December 1861, February 1890, February 1927, December 1955, December 1964, December 1965, January 1971, (Floodplain Management Study, SCS, March 1982), and November 1996.

What are the basic morphological characteristics of stream channels and the general sediment transport and deposition processes?

Pistol River streams generally flow through narrow, steeply incised inner gorges. As a result, flood plain development and depositional areas in the active channel are limited to the lower South Fork and the mainstem below South Fork. Well-developed flood plains are only in the first 3.4 miles above the mouth.

Longitudinal profiles of the Pistol River and named tributaries, based on 7.5 minute series USGS topographic maps with 40 foot contours give broad scale information on deposition and transport reaches. See annotated profiles, Appendix A.

Timber harvest and roads can increase sediment production and peak flow, affecting bank and channel stability. The condition of the lower Pistol River will remain uncertain as continued timber harvest and road construction on private lands could delay the system's recovery from excessive sediment produced in past decades. Sediment production has been decreasing since it reached a peak between 1970 and 1986. The lower Pistol mainstem and South Fork received the majority of the sediment and have experienced the greatest effects to the aquatic system.

Sources of Large Wood to Channels

Large wood in streams is important for fish habitat and channel stability. Wood is delivered to streams two ways. Trees tall enough to reach a stream can fall into the channel, or trees growing in unstable areas directly uphill of a stream enter the channel when a landslide or debris flow is triggered along the unstable area.

The high levels of clearcut harvest in the overall Pistol River watershed have probably depleted future supplies of large wood to the mainstem.

Management Opportunities

Increase the restoration rate of the large wood supply within riparian areas on National Forest System lands within the watershed by planting conifers in understocked areas, thinning conifers in overstocked areas, and manual release.

What beneficial uses dependent on aquatic resources occur in the watershed? Which water quality parameters are critical to these uses?

Throughout the watershed, the primary beneficial use is the anadromous fishery. In the residential and agricultural areas of the lower watershed, water is used for domestic and irrigation purposes. There are also several popular swimming holes in the lower mainstem for summer recreation.

Water quality factors that affect all of these uses are temperature and turbidity.

Stream Temperature

Temperature is affected by streamside shade and channel morphology. It is believed that summer stream temperatures in the lower Pistol River have risen significantly, beginning in the 1950's. This is due to the amount of streamside harvest and road construction in the watershed which reduced streamside shade and increased sediment delivery. The increased amount of sediment filled pools and created broader, flatter channels in low gradient sections which heat more quickly. In recent years, stream shade and stream channels have been recovering in the upper Pistol mainstem, reducing stream temperature. Stream surveys in 1979 found only 29% stream shade. Comparison of the same area in a 1989 survey found the stream shade had recovered to 55%.

Harvest of conifers and hardwoods continues on private land, maintaining the warmer stream temperatures in downstream sections. Aquatic species dependent on cooler water are known to be decreasing in numbers, and stream temperature may be a factor in this decrease (ODFW, 1991). Maintaining cooler stream temperature in the tributaries feeding the downstream sections of the river is important.

Stream temperatures were monitored in a cooperative effort between the US Forest Service, ODFW, and OSU as part of the Pistol River Study 1991-1993. This data shows a range of average 7-day maximum temperatures from 62° to 75°F. Monitoring by USFS and ODFW began again in 1997.

Table 4: Average 7-day Maximum Stream Temperatures

Stream	Site Name	1997
Pistol River	above East Fork	66.6
North Fork Pistol	r.m.3.1	—
	bridge	69.0
East Fork Pistol	mouth	65.2

Turbidity

Turbidity is caused by the portion of sediment with small enough particles to be suspended in the water column, rather than transported along the streambed or carried short distances and deposited, as are the "coarse" cobbles and gravels and "fine" sands. Typically, streams in the Pistol River system are turbid during storms and clear quickly. Frequency and duration of turbidity may have increased following management activities that increased peak flows, erosion, or mass failures. Higher turbidity during storms has been anecdotally observed in major tributaries with recent high levels of harvest.

Management Opportunities

Increase the growth of shading vegetation within riparian areas on National Forest System lands within the watershed by planting conifers in understocked areas, thinning conifers in overstocked areas, and manual release.

What is the character of fish habitat in the watershed?

The mainstem of the Pistol River provides both spawning and rearing habitat for fall chinook and winter steelhead. The fall chinook migrate up the mainstem to the confluence with the East Fork. Fall chinook have also been seen in the first 0.5 mile of the East Fork. The winter steelhead migrate up the mainstem to river mile 17.5 where passage is blocked by a 15 foot waterfall. The first 4.0 miles of the East Fork provide spawning and rearing habitat for the winter steelhead, as well as the first 0.1 mile of Meadow Creek. Resident rainbow and cutthroat trout are also present in the streams listed above and several of their tributaries.

The mainstem of the Pistol River below the East Fork has historically provided high quality habitat for anadromous fish (oral histories on file at Chetco Ranger Station). However, extensive road building and logging from 1955 to present along the mainstem of the river and the major tributaries has led to a severe loss of pools and increase in water temperatures. Slopes of several tributaries and stretches of the mainstem are currently major sediment sources for fish habitat (Russell, 1994). Peak summer stream temperatures range from 70-75 degrees Fahrenheit, which is marginal for the survival of salmonids (ODFW, 1991).

On National Forest System lands, timber harvest and road building occurred in the upper mainstem and the North Fork Pistol drainages in the 1960's and 1970's. Stream surveys and aerial photos from the 1970's reveal localized heavy impacts including loss of shading vegetation and increased sediment delivery. The 1980's brought a decline in both rates and intensity of timber harvest, allowing these areas to recover. Recent stream surveys reveal high quality fish habitat. The streams are again shaded and have been flushed of excess sediment. Peak summer temperatures at the Forest Boundary are below 70 degrees.

What is the distribution of fish in the watershed?

The anadromous fish species the Pistol River supports are fall chinook salmon, winter steelhead and sea-run cutthroat trout. (See Map of Fish Distribution) Resident species present are rainbow and cutthroat trout. The fall chinook population is classified as depressed by Oregon Department of Fish and Wildlife (ODFW, 1972) and the American Fisheries Society (Nehlsen, 1991). According to ODFW, the chinook run has declined about 70% since the late 1970's and has never rebounded. The winter steelhead run is just one component of the overall Klamath Mountains Province steelhead population which has been recently proposed for listing as threatened by the National Marine Fisheries Service (NMFS, 1995).

What are the vegetative types of riparian areas in the watershed?

About 12 percent of National Forest lands in the Pistol River watershed have been allocated to Riparian Reserves. These riparian areas can be grouped into four categories of vegetative characteristics: conifer forest, hardwood forest, meadow, and ultramafic riparian areas.

The most common category, conifer forest riparian, is generally located on more productive soils where availability of water is not growth limiting. Because tall conifers such as Douglas-fir, western hemlock and Port-Orford-cedar dominate these areas, more land use activities have taken place in this riparian type. Hardwoods are an important component of these multilayer, generally closed, canopies. Where riparians have not been disturbed by harvest activities, large wood in the form of limbs and boles is continuously delivered to the stream channel.

Hardwood-forested riparian stands tend to replace conifer-riparian stands where either water is limiting or fires have disturbed the riparian zone. These stands are dominated by tanoak trees, with madrone, myrtle, chinquapin, knobcone and sugar pine often present. Scattered Douglas-fir will often grow directly out of the stream channel where there is more water. These stands are generally closed canopy, single-storied structure with low ground cover that do not have the insulating qualities of conifer forest.

Meadow riparian areas occur on dry sites with high fire frequency and wetland soils. Most meadows outside National Forest lands have been homesteaded and grazing of cattle still occurs. A reduction in fire frequency over the past century has increased the forest encroachment on dry site meadows.

The ultramafic riparian areas are primarily located in the Windy Creek and North Fork Pistol drainages. Although they have fewer trees than the conifer and hardwood forest riparian areas, they have a larger component of Port-Orford-cedar. Port-Orford-cedar provides long term structure to the stream channel due to its slow rate of decomposition. The open canopy provides less shade, so stream temperatures are normally warmer than in conifer and hardwood forest riparian areas. Because water provides a natural vector for *Phytophthora lateralis* to infect Port-Orford-cedar, mortality rates in riparian areas are greater than in upland areas.

Management Opportunities

Accelerate the development of large wood and maintain forest health through planting of desired species, release and precommercial thinning of young managed stands. Slow the spread of *Phytophthora lateralis* through road repair, seasonal closures and decommissioning, and trail design and maintenance.

TERRESTRIAL ECOSYSTEM NARRATIVE

Vegetative Characterization

The Pistol River watershed extends from the Pacific Ocean approximately 15 air miles east and to an elevation of 4221 feet. Its coastal exposure and inland areas of ultramafic soils provide growing sites for a variety of vegetation types.

Ultramafic soils found in the North Fork Pistol and Windy Creek drainages support a wide variety of conifers, including Jeffrey pine, western white pine, knobcone pine and scattered sugar pine on drier upper slopes, and Port-Orford-cedar and incense cedar in wet areas. Brewer spruce have been found in the vicinity of Snow Camp Mountain and a stand of lodgepole pine can be found at Flycatcher spring. California pitcher plant (*Darlingtonia californica*) is found in many locations in association with ultramafic plant communities.

The condition of the seral stages within the watershed has been influenced considerably by past and present management activities on public and private lands. On National Forest lands late-seral habitat accounts for roughly 15 percent of the watershed. The acreage allocated to Late-Successional Reserve is 11,298, about 17 percent of the watershed. About 40 percent of the watershed is comprised of Douglas-fir and mixed hardwoods in an early to mid seral stage. Harvest unit and hardwood conversion regeneration efforts throughout the watershed have been successful and managed stands are thrifty. Hardwood competition with conifers and overstocking due to natural reseeding continue to cause the need to release and precommercial thinning in young managed stands.

There are more than 1700 acres of meadow in the Pistol River Watershed. The most notable meadows are: Windy Valley, Snow Camp meadow, Fairview meadow, Crockett's Prairie and Gardner Ranch. Snow Camp Botanical Area is located in the Pistol River and Lawson Creek watersheds. It includes the top of Snowcamp Mountain, Snow Camp Meadow, and Fairview Meadow in the Pistol watershed. The flora is quite varied and the area is home to at least six sensitive plant species. Wet sites are inhabited by species such as *Carex scabriuscula* and *Lilium vollmeri*; and dry sites by species such as *Lilium bolanderi* and *Cypripedium californicum*.

Information Needs

Public and private lands outside the National Forest boundary should be inventoried to determine the current vegetation composition and condition.

What are the special and unique habitats in the watershed and how are they changing?

The Pistol River watershed provides wide variety of important wildlife habitats such as old-growth, meadow, rock outcrop, pond, and riparian.

The late-successional habitat in the watershed provides important nesting habitat for the threatened northern spotted owl. The Southwest Oregon Late-Successional Reserve Assessment determined that 29 percent of the North Chetco LSR is in a late-successional condition and 5 percent is interior LSR habitat. Roughly 27 percent of the watershed is currently suitable owl habitat and there are from 4 to 6 occupied sites. Due to the extensive harvest activities on private land in the lower Pistol basin, old-growth stands

on National Forest lands are the first habitat encountered by nesting marbled murrelets. Within 6 air miles of the Pacific ocean the late-successional habitat is the location for at least 12 known occupied marbled murrelet sites.

Pioneer successional habitat (grass/forb/low shrub) in the watershed is found in recent (less than 15 years old) clearcut areas, meadows, open woodland areas and brushfield areas. About 22 percent (7,800 acres) of the watershed on National Forest lands is currently in this habitat. The majority of the existing clearcut areas that are functioning as pioneer habitat will grow out of this condition within the next 15 years.

Within National Forest land there are about 590 acres of meadow habitat. Meadows are important areas for native grass species and permanent forage for wildlife. Meadows provide rearing habitat for Roosevelt elk, black-tail deer, grouse, quail and neotropical birds. Nearly all the meadows in the watershed have been grazed by cattle. Cattle still graze meadows on private land in the lower basin. The majority of sensitive plants within the watershed are in areas with serpentine soils. These soils are inhabited by a large number of fruit bearing plants such as coffeeberry, red huckleberry and indian plum, important to wildlife for forage.

Open meadow areas are being reduced in size by tree encroachment. Bogs, springs, ponds, and lakes are being encroached at a slower rate; some ponds and lakes are filling in with silt and vegetation. Open serpentine areas are being encroached by conifers and hardwoods.

Information Needs

Identify areas of talus habitat for Del Norte salamander that need protection. Identify and buffer large rock outcrops that may be peregrine falcon nest habitat.

Management Opportunities

Maintain and restore open meadows, open serpentine areas, and pond sites. Treatment options include girdling or cutting and removing encroaching trees in bogs, springs, and meadows; cutting encroaching trees in serpentine areas; burning meadows and open serpentine areas; cleaning out pond sites by removing silt and overgrown vegetation; and conducting protocol surveys for talus habitat in all proposed project areas.

Table 5: Priority Habitat Treatment Areas

Habitat Type	Location
Meadows	Snow Camp Meadow, Windy Valley Meadow, Derringer Meadows, Crockett Prairie, Meadow Creek Meadow, Sunrise Creek Meadows, Hazel Camp Meadows, North Fork Pistol Meadows
Open serpentine areas	Snow Camp Mountain and Botanical Area, North Fork Pistol, Upper East Fork Pistol
Bogs and springs	Flycatcher Springs, Snow Camp Mountain, North Fork, Upper East Fork
Ponds and lakes	Panther Lake, Snow Camp Meadow Area, Elko Pond, and unnamed ponds near Forest Roads 1407210, 1503030, 1503037, 3680360, and 3680361
Large rock outcrops	Snow Camp Mountain, Windy Valley, Upper East Fork, Upper Pistol, North Fork Pistol, Stack Yards, Hog Mountain
Talus habitat	Throughout all Matrix Land Allocation

Where are snags and large down wood lacking in the watershed?

Large hardwoods and conifers, snags, and large down wood are at reduced levels in managed stands throughout the watershed on federally owned as well as privately owned land. Agricultural and residential areas that have been cleared also have reduced levels of these components.

Management Opportunities

Treat stands to retain and develop large trees, down wood, and snags throughout the watershed. Develop snags in areas adjacent to managed stands lacking snag and large woody material habitat. Recruit snags and large down wood in natural stands lacking this habitat component. Priority locations are throughout the watershed, especially in the lower Pistol, South Fork Pistol, Upper Pistol, and areas adjacent to privately owned land.

Treatments could include:

- Creating snags and down wood in areas adjacent to managed stands in the short term, and within managed stands in the long term, by selecting trees with larger or faster growth, or defect.
- Thinning in managed stands to grow larger trees for snag recruitment.
- Identifying green tree retention areas which provide protection for existing snags.

How is road density affecting habitat capability for deer and elk?

Road density in the Upper Pistol portion of the watershed is 4.24 miles per square mile. Road density in the Meadow Creek portion of the watershed is 2.80 miles per square mile. The East Fork subwatershed is mostly near or below 2.0 miles per square mile. Other subwatersheds contain road densities greater than the desired 2.0 miles per square mile.

Management Opportunities

Maintain or reduce road density to 2.0 miles per square mile or below to reduce harassment or disturbance to elk by vehicular traffic. This could be accomplished by closing existing and newly constructed roads to vehicle traffic. Priority locations are Upper Pistol, Meadow Creek, North and South Fork Pistol subwatersheds.

What proposed, endangered, threatened or sensitive (PETS) species, both flora and fauna, are present?

Several species of sensitive wildlife are present throughout the watershed. PETS plant species are limited in the watershed mainly to Botanical Areas and serpentine habitat, and isolated sites. Spotted owls have been recorded for eight known sites. Murrelets occupy 12 known stands and have been detected within the watershed at other locations. Del Norte salamander sites (and habitat) are common throughout the watershed. Red-legged frogs and pond turtles have been documented. Plecotus (big-eared bats) are suspected. Habitat for peregrine falcon is present; none have been documented. Kingsnakes have been documented on the 3680 road and may occur elsewhere in the watershed. Other PETS wildlife species are not expected to occur in the watershed. The East Fork and Meadow Creek portions of the watershed are a Late-Successional Reserve for northern spotted owl and late-successional related species.

The East Fork Pistol and areas in the North Fork Pistol are important areas of habitat for both spotted owl and marbled murrelet due to the lack of habitat for these two species on adjacent private lands, and close proximity to the ocean (murrelets).

Management Opportunities

Maintain or increase populations of sensitive plant and animal species within the watershed. Increase habitat capability for some species (i.e. spotted owl) within the late successional reserve by developing potential habitat into suitable habitat. Maintain known sensitive plant sites and Del Norte salamander sites. Avoid disturbance to sensitive species sites and individuals. Priority locations are known sensitive species sites in the watershed, and potential habitat areas for spotted owls, marbled murrelets, Del Norte salamanders, and peregrine falcon.

What stands need treatment for forest health and late-successional habitat?

Some stands, both managed and natural, are overstocked. Competition from hardwoods and conifers is causing slower development of younger stands. Older forest and interior forest habitat is fragmented into small patch sizes. Some older forest habitat is not functioning as interior forest habitat because of small patch size and edge effect.

Management Opportunities

Accelerate growth and development of early and mid seral stands into late seral stands. Increase patch sizes of older forest and interior forest habitat by developing adjacent early and mid seral stands into late seral stands. This could be accomplished by thinning and manual release of younger stands, and prescribed underburning in areas adjacent to older stands to reduce competition and fuels. Priority locations are:

- Areas in close proximity to older forest and interior forest habitat patches in the North Fork Pistol and Sunrise Creek drainages
- Managed and overstocked natural stands
- Late successional reserve in the East Fork and Meadow Creek portions of the watershed.

Are habitat connections between watersheds and late-successional reserves being maintained?

Habitat connection corridors have been identified for some of the subwatersheds (Upper Pistol, North Fork Pistol, Sunrise Creek, Meadow Creek, East Fork Pistol). Connection corridors are still needed for the remaining subwatersheds and with private and BLM lands. Both current and future proposed connections need identification, development, and maintenance.

Information Needs

Identify and establish current connections using suitable habitat types. Identify and establish future proposed connections using potential and suitable habitat types. Identify areas for improvement of these connections.

Management Opportunities

Establish a network of habitat connection corridors, both current and future, between all subwatersheds and land ownerships, by developing current habitat conditions into suitable habitat connections containing mid to late seral vegetation. Priority areas for connections are:

- Between private and federal lands
- Between North Fork, Sunrise, South Fork and Lower Pistol subwatersheds and their adjacent subwatersheds
- Between the North Chetco LSR and the North Coast LSR.

How are non-native species affecting the watershed?

Noxious Weeds

Noxious weed species are not abundant in the watershed. Gorse plants once found in the watershed have been eradicated and no new plants have been seen for several years. Tansy ragwort, pampas grass, Scotch broom, French broom, and thistles are found along mainline roads. Some sites are spreading along spur roads. Meadows have a higher susceptibility to some weeds.

Management Opportunities

Reduce the spread of noxious weeds by cutting, pulling, or burning plants along roads; closing spur roads not currently needed for management; and cleaning heavy equipment before entering the Forest.

Port-Orford-cedar Root Disease

The Pistol River watershed, along with the adjacent Collier Creek, Lawson Creek, Hunter Creek and Chetco River watersheds, contains Port-Orford-Cedar stands that are infected with *Phytophthora lateralis*. Sites infected are; the East Fork Pistol and Cedar Creek, beginning in a small tributary off road 1407; the North Fork Pistol and many of its tributaries that originate near road 1703 and its spurs; the mainstem of the Pistol River below the National Forest Boundary; and two isolated sites near roads 3680.340 and 3680.360 near Snow Camp Meadow. In addition to seasonal and permanent road closures within the watershed, portions of roads 1376 and 3680 have been sanitized to reduce the risk of further infection.

Management Opportunities

Reduce the risk of spread, and maintain or restore healthy Port-Orford-cedar in riparian reserves. Priority locations for protection are Windy Valley, Snow Camp Mountain and Meadow, Road 1376, and the upper mainstem. Treatment options include:

- Cut Port-Orford-cedar from edges of roads.
- Close roads not in current use.
- Clean heavy equipment before entering these areas.
- Restrict road use to dry season.
- Use uninfested water for firefighting and other uses.

- Place surface rock on segments of infested roadways.
- Plant and release Port-Orford-cedar on lower risk riparian microsites.

White Pine Blister Rust

Blister rust, a non-native disease affecting five-needle pines, was introduced into North America in 1911. Locally it affects western white pine and sugar pine. On Snow Camp Mountain humidity levels favorable to the disease have caused heavy white pine mortality. The limited, scattered sugar pine in the watershed is being killed by competition, blister rust, and mountain pine beetle.

Management Opportunities

Reduce the rate of spread of the disease, and maintain healthy stand components of five-needle pines by cutting dense hardwoods and conifers around sugar pine and white pine, underburning to reduce the risk of fire damage from dense fuels, and planting resistant stock. Priority locations are Snow Camp Mountain and scattered sugar pine sites.

SOCIAL ASPECTS NARRATIVE

What were the prehistoric uses of the watershed?

Known human uses of the Pistol River watershed began with Chetleshin band of the Tututni. Generally, Tututni bands lived in large, permanent winter villages established along coastal areas and rivers. Seasonally, inhabitants would leave the lowland villages for the upland areas to procure a variety of plant foods, other plant products and material for the production of stone tools. Big game hunting, possibly including drives using fire and pit traps, was also an upland occupation. Seasonal upland camps have been found in the watershed. Archeological evaluation has determined that upland sites were used approximately 4000 to 2000 years before present.

What were the historic uses of the watershed?

The first euroamerican settlers were miners who came to the area in the 1850's. Following or accompanying the miners were early settlers, farming in the flat lands along the rivers and major creeks and grazing cattle and sheep in the surrounding hills. Primary settlement was near the mouth of Pistol River, just as the Tututni had settled previously. Two meadow complexes have been used historically and currently for grazing. These areas are in private ownership and called Gardner Ranch and Miller Ranch (also known as Crockett's Meadow). Some of the earliest maps (1919) show Gardner and Miller in the Pistol watershed. The Pistol River Cattle Allotment has 34 cow/calf pairs and has been under permit since 1984.

Currently the flat lands near the mouth of the Pistol River are occupied by residences and ranches. The middle portion of the watershed is primarily owned by private timber companies. The upper portion of the watershed is primarily National Forest ownership. Timber commodity production has been an important human use of the middle and upper portions of the watershed since World War II.

What are the major recreational uses and where do they occur in the watershed?

The primary recreational activities which occur at this time are hunting and dispersed camping, fishing, sight-seeing, firewood gathering, and hiking , with swimming along the lower mainstem. The level of recreational use is not known.

Which roads are needed for future access in the watershed and which roads need treatment to protect the resources of the watershed?

Roads under Forest Service jurisdiction are listed in the Appendix. An interdisciplinary team categorized these roads according to the level of access they provide. Primary and Secondary roads are needed for future access in the watershed. Candidate roads do not provide access needed for administration or management of the forest, and may be eligible for decommissioning if an access need does not surface during public scoping.

Roads and stream crossings have not been inventoried to determine potential resource risks.

No data are available on the year the roads were built. Some private roads could have been built for homesteads in 1900. Public roads were built between 1950 and 1975.

Table 6: Pistol River Watershed Road Summary (FS Jurisdiction)

Number of Roads	Total Miles	Closed Miles	Miles to be Closed	Total Closed Miles
89	111.65	1.68	9.60	11.28 (10%)

Information Needs

Identify roads that are high priority for stormproofing or decommissioning.

Management Opportunities

One watershed restoration opportunity identified for aquatic resources is stormproofing Road 1703101.

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Pistol River Watershed Road List

Road No.	Segment	Length	Maintenance Level	Classification
1600070		2.43 *	2	S
1703000	from Forest boundary to 1503	6.00 *	2	S
100	from pvt to 1703	2.32 *	2	S
108		0.83 *	2	S
101		1.62 *	2	S
102		0.26 *	2	C
103		0.13 *	2	C
110		1.61 *	2	S
114		0.80 *	2	S
115		0.08 *	2	C
spur-1		0.20 *	2	C
120		0.76 *	2	S
122		0.12 *	2	C
150		2.00 *	2	S
156		1.09 *	2	S
158		0.16 *	2	C
159		0.11 *	2	C
190		1.73 *	2	S
1601010		1.12 *	2	S
1503030		8.03 *	2	S
030		1.35 *	1	C
031		0.10 *	2	C
032		2.81 *	2	S
spur-2		0.20 *	2	C
033		0.36 *	2	C
035		1.93 *	2	S
036		0.34 *	2	S
037		0.28 *	2	C
038		0.41 *	2	S
039		0.33 *	1	C
931		0.19 *	2	S
1503050		6.61 *	2	S
052		1.48 *	2	S
525		0.20 *	2	C
053		1.12 *	2	C
055		0.46 *	2	C
056		0.14 *	2	C
057		1.52 *	2	S
058		1.00 *	2	C
059		0.20 *	2	S
1503000	from 070 to 3680	1.00 *	3	P
070		1.65 *	2	S
072		0.50 *	2	C
073		0.11 *	2	S
3680300		0.55 *	2	S=0.3
				C=0.25
310		4.74 *	2	S=4.45
				C=0.29
311		0.58 *	2	S
312		0.84 *	2	S
313		0.62 *	2	S
314		0.83 *	2	S
316		1.70 *	2	S

317		0.13 *	2	S
934		0.19 *	2	C
938		0.20 *	2	C
318		1.10 *	2	S
319		0.15 *	2	C
3680360		8.15	2	S
361		0.11	2	S
975		0.20	2	C
362		4.31	2	S
363		0.35	2	C
364		0.27	2	C
365		0.30	2	C
366		0.41	2	C
367		0.20	2	C
spur-3		0.20	2	C
368		0.54	2	S
964		0.82	2	S
369		1.96	2	S
966		0.47	2	S
967		0.05	2	S
1376000	from 3680 to sec 32	1.00	2	P
		1.00	3	P
590		0.41	2	S
1407000	from 1376 to 180	5.00 *	3	P
290		0.30	2	C
270		0.49	2	C
230		3.90	2	S
237		0.63	2	S
210		2.80 *	2	S
spur-4		0.20 *	2	C
spur-5		0.20 *	2	C
211		1.20 *	2	S
212		0.43 *	2	S
200		0.18 *	2	C
1407130	from sec 34/35 to end	6.00 *	2	S
133		0.62 *	2	S
136		1.36 *	2	S
138		0.27 *	2	S

* Road accesses Matrix

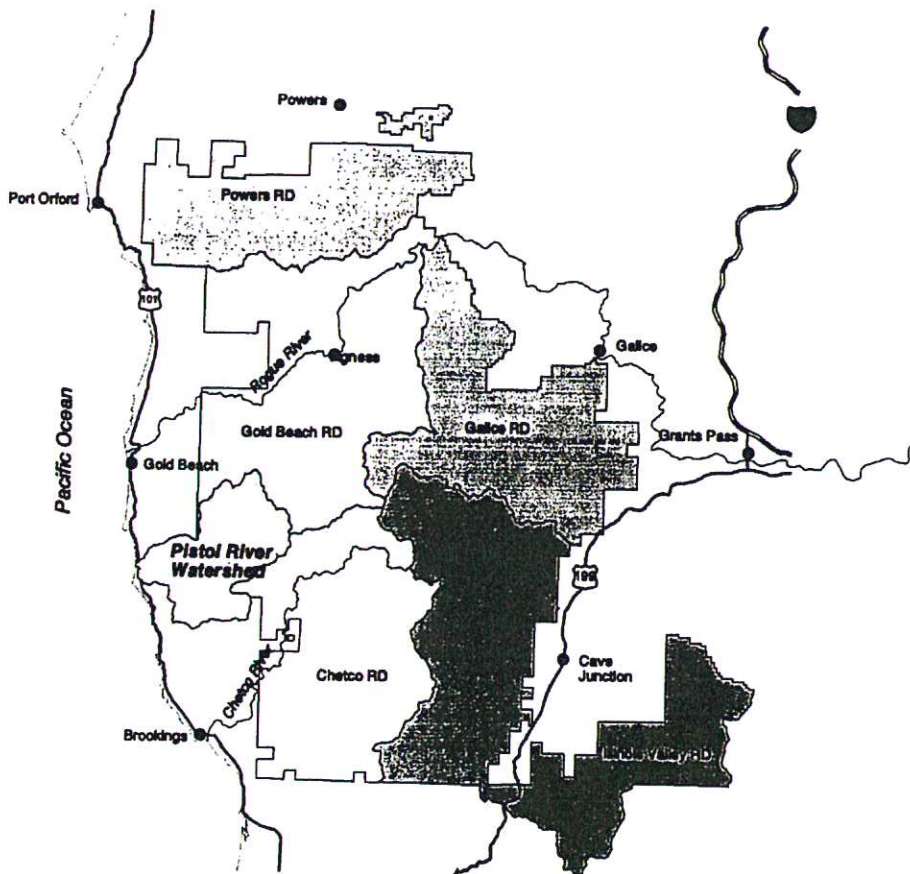
P=Primary Road, Maintenance Level 3,4,5. OPEN

S=Secondary Road, Maintenance Level 2A,2E. OPEN

C=Candidate Road, Maintenance Level 2D (to be closed), Maintenance Level 1 (closed)

Maintenance levels 1, 3, 4, and 5 roads are probably maintained to standard; maintenance level 2 roads are probably not. Transportation Network Analysis was conducted from 11-93 to 5-94.

PISTOL RIVER WATERSHED



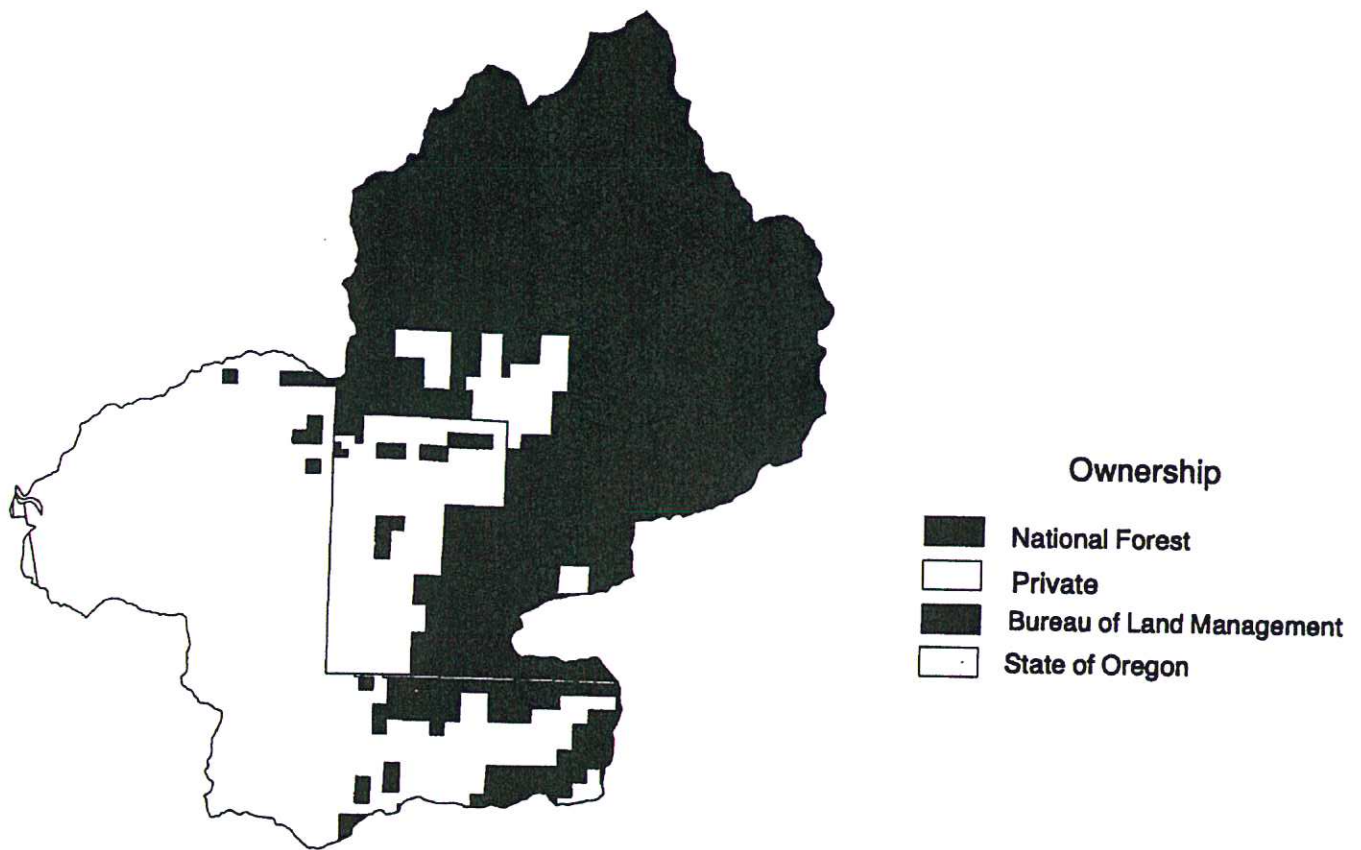
Vicinity Map

0 10 20 Miles

A horizontal scale bar with markings for 0, 10, and 20 miles.

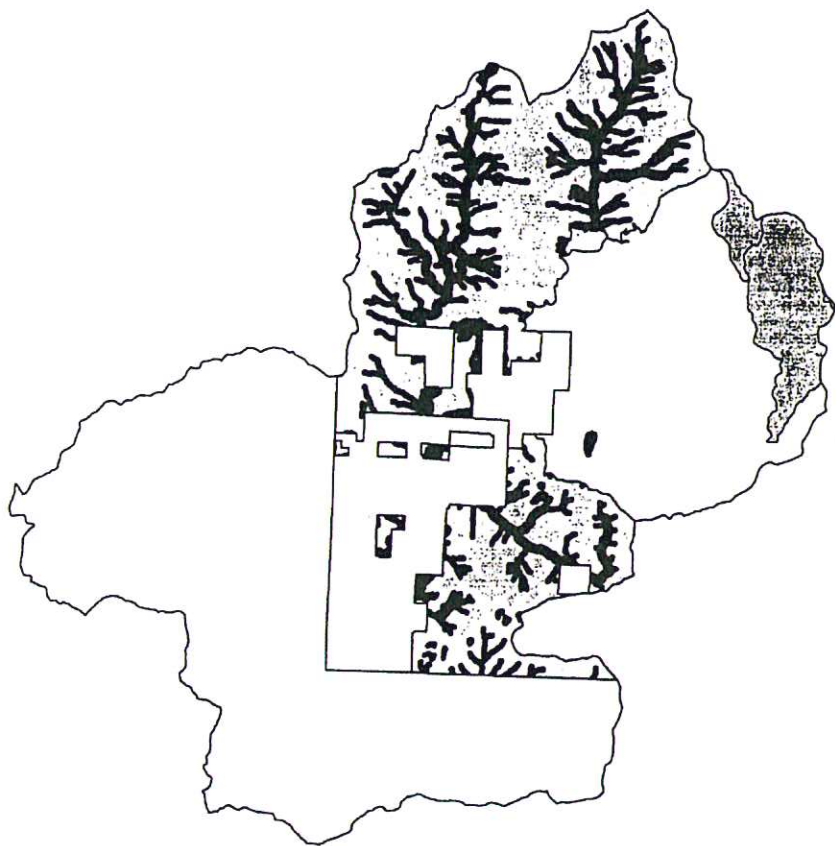
8/5/98 CR

PISTOL RIVER WATERSHED



8/5/98 CR

PISTOL RIVER WATERSHED

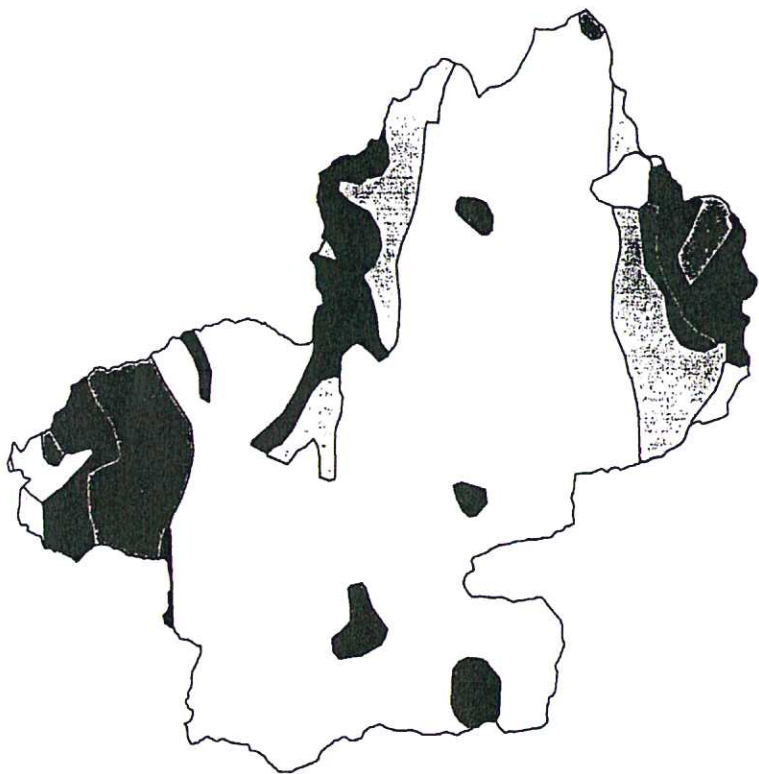


Management Area



8/5/08 CR

PISTOL RIVER WATERSHED

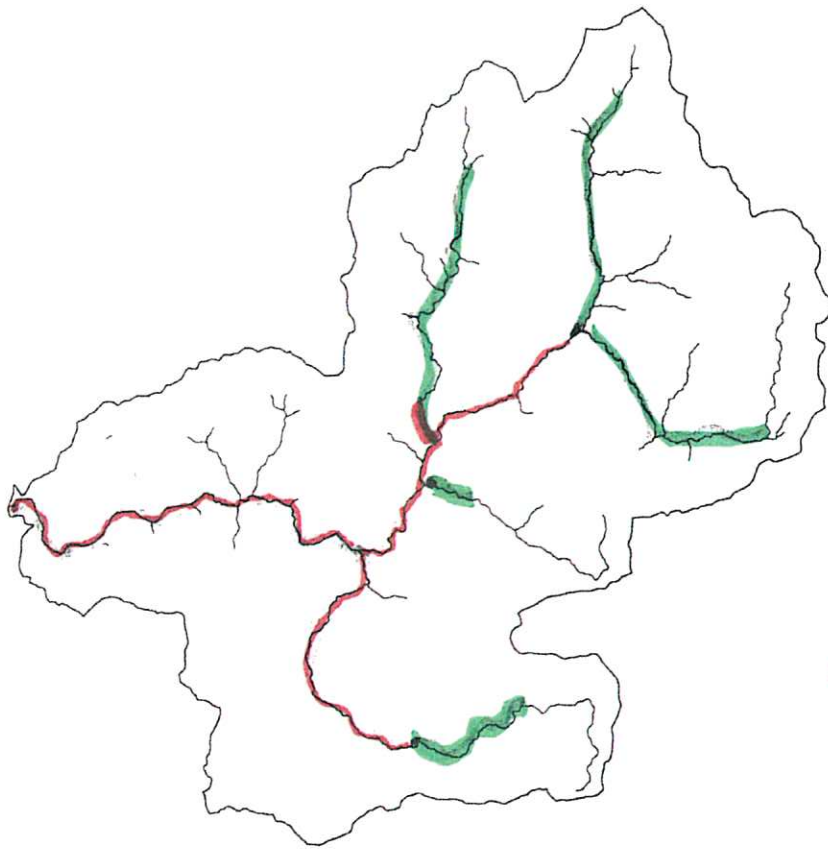


Geology

	Intrusive igneous
	Otter Point sediments
	Dothan sedimentary
	Dothan volcanics
	Myrtle sedimentary
	Cretaceous sedimentary
	Quaternary alluvium
	dune sand
	landslide deposits
	Colebrooke schist

8/5/88 CR

PISTOL RIVER WATERSHED



Fish Distribution



Fall Chinook, Searun cutthroat,
Winter steelhead, and Residents



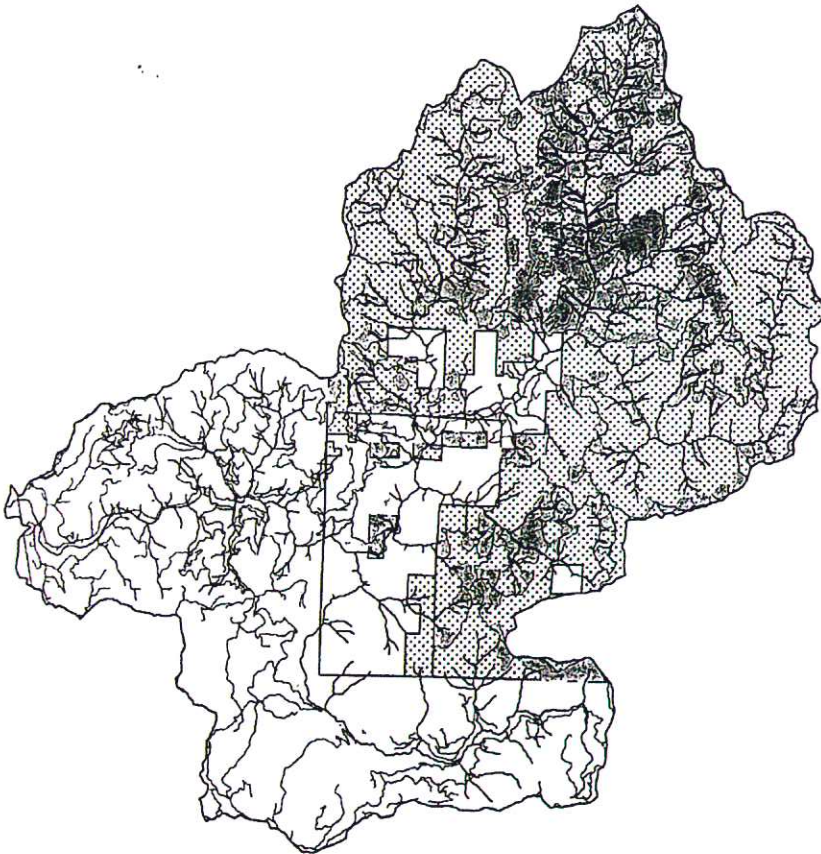
Winter steelhead, Searun cutthroat,
and Residents



Resident cutthroat and rainbow

8/5/98 CR

PISTOL RIVER WATERSHED



Streams
(streams in SW portion
of watershed not shown)

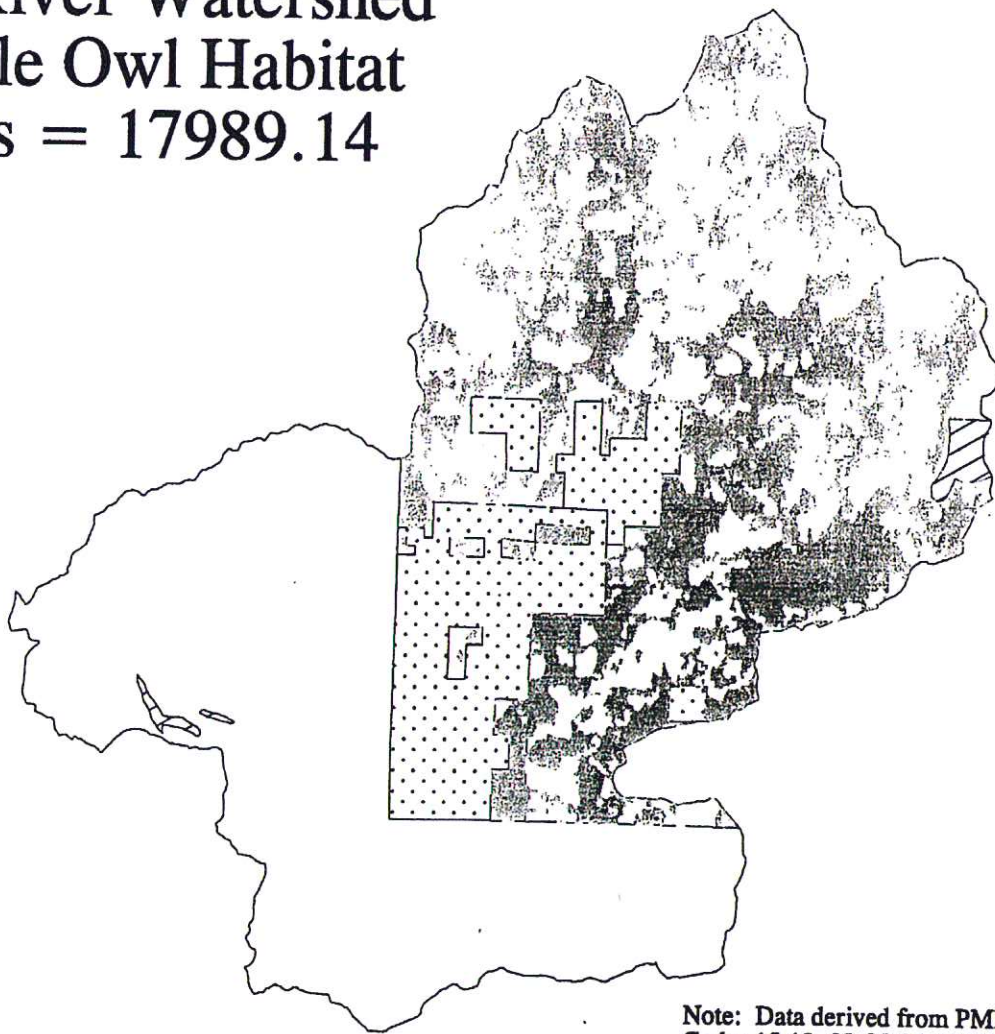
Roads

Managed Stands
on National Forest lands

National Forest lands

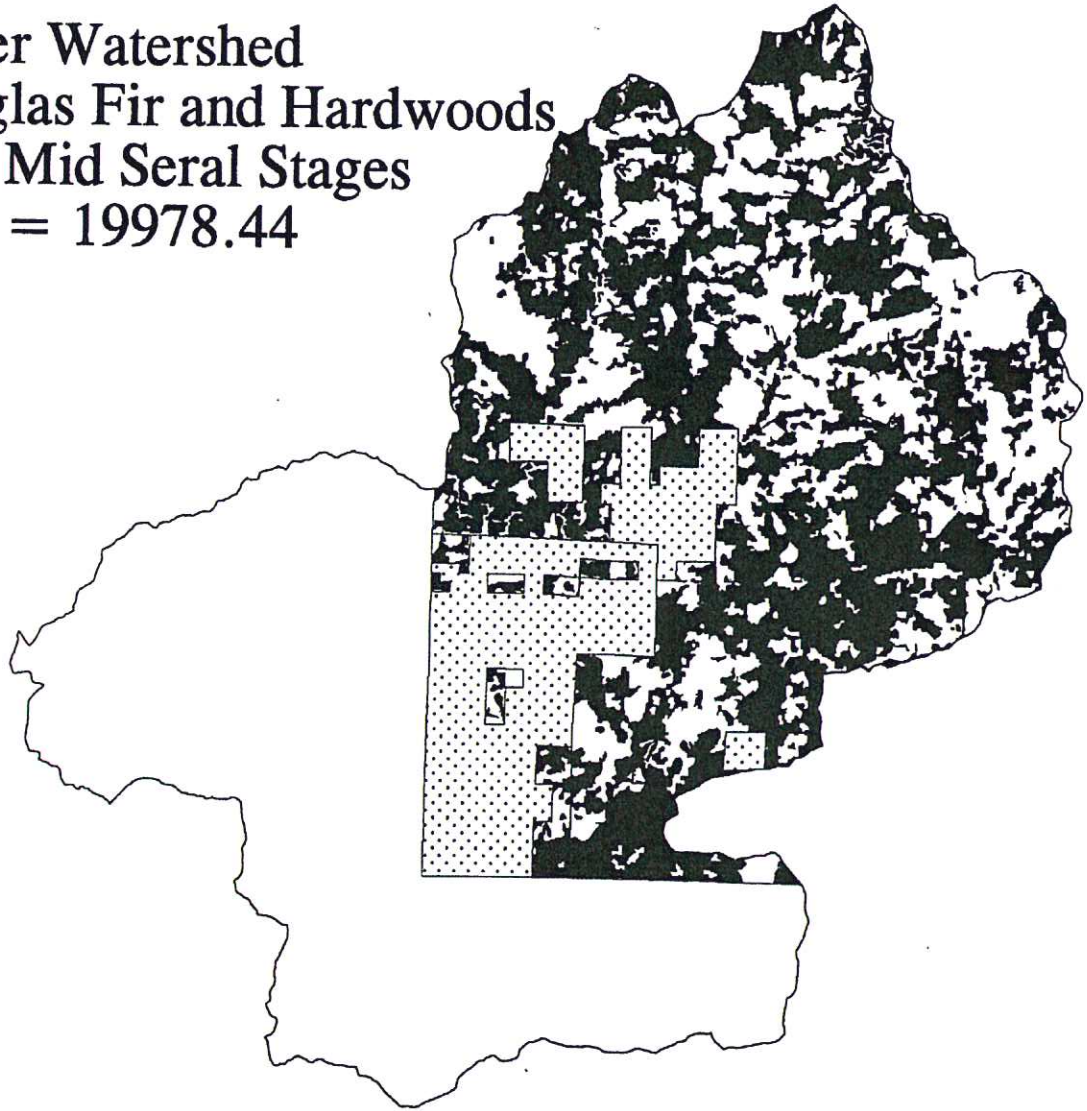
8/5/98 CR

**Pistol River Watershed
Suitable Owl Habitat
Acres = 17989.14**

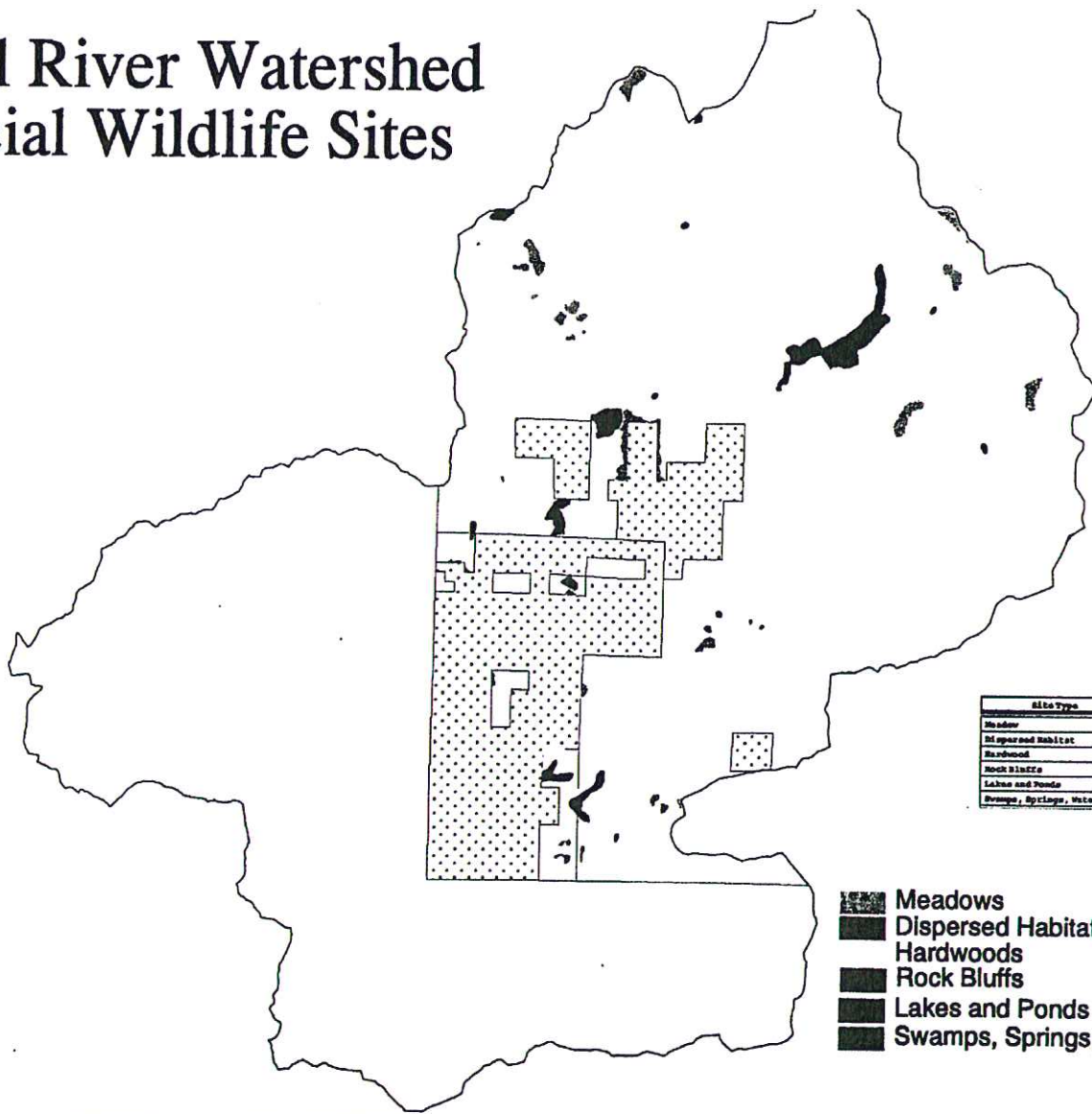


Note: Data derived from PMR polygon data.
Codes 15-19, 22,25,26,28,29,31,32,34 and 39
in the clc_sizest field were considered
suitable habitat.
Ultramafic Soils were not considered suitable habitat.

**Pistol River Watershed
Areas of Douglas Fir and Hardwoods
in Early or Mid Seral Stages
Acres = 19978.44**



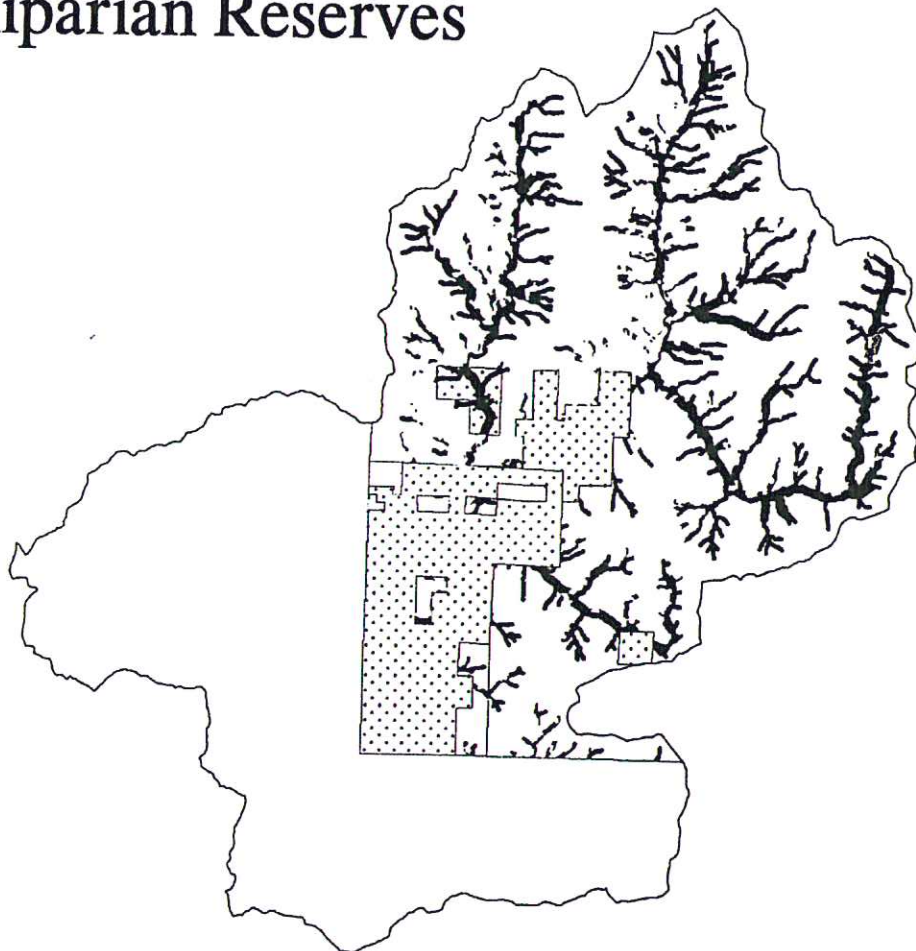
Pistol River Watershed Special Wildlife Sites









Site Type	Acres
Meadow	899.96
Dispersed Habitat	843.00
Hardwood	64.14
Rock Bluffs	49.10
Lakes and Ponds	28.00
Swamps, Springs, Waterholes	0.93

- Meadows
- Dispersed Habitat
- Hardwoods
- Rock Bluffs
- Lakes and Ponds
- Swamps, Springs, Waterholes

Pistol River Watershed Vegetation Types in Riparian Reserves

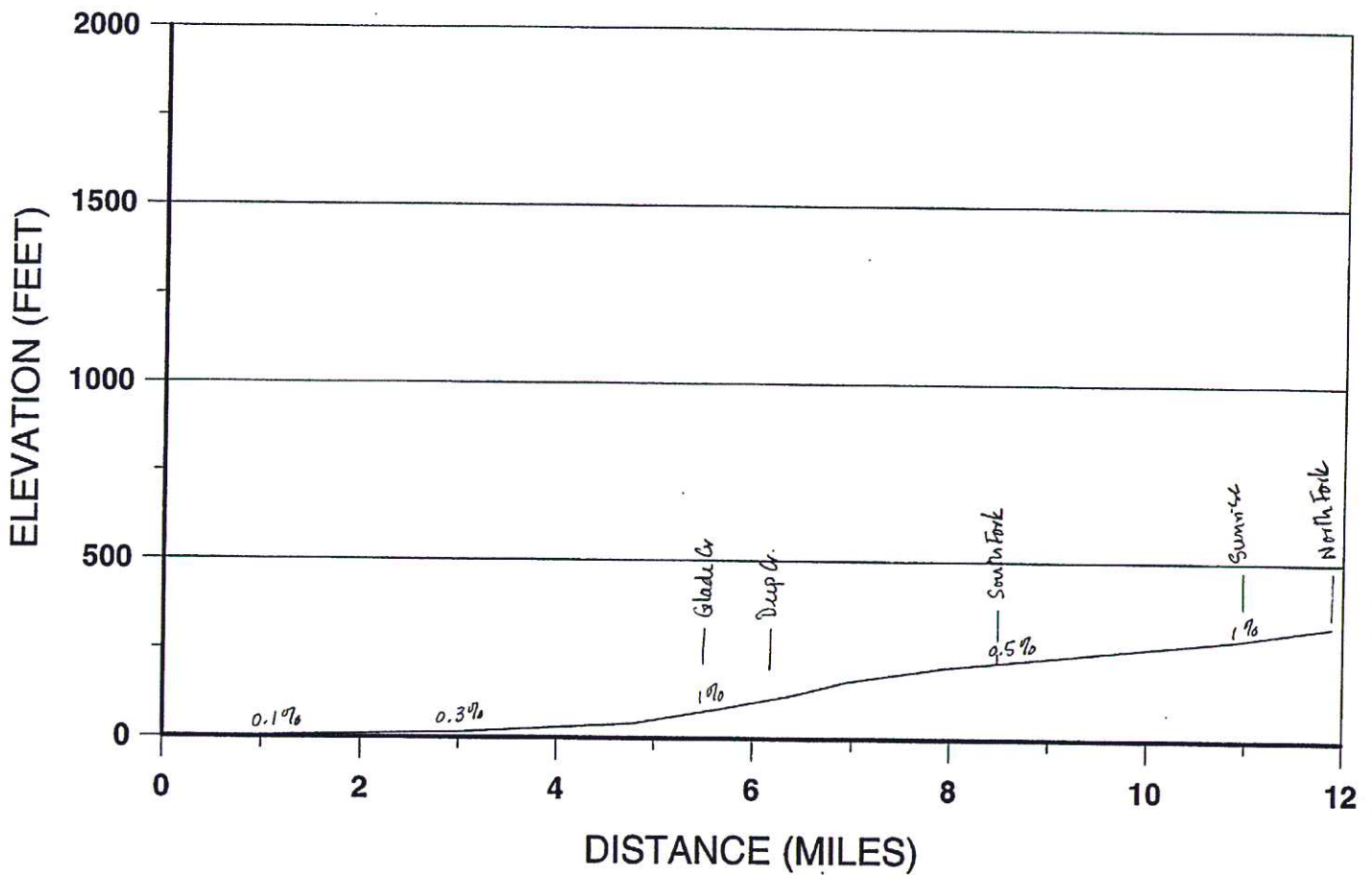


Vegetation	Aores	Percent
conifer	4298.3500	56.87
hardwoods	1394.2000	18.45
meadow	76.5500	1.01
other	1756.7100	23.24
ultramafic	31.8300	0.42

Vegetation Types	
	Conifer
	Hardwoods
	Meadow
	Other
	Ultramafic areas
	Private Land within Forest Boundary

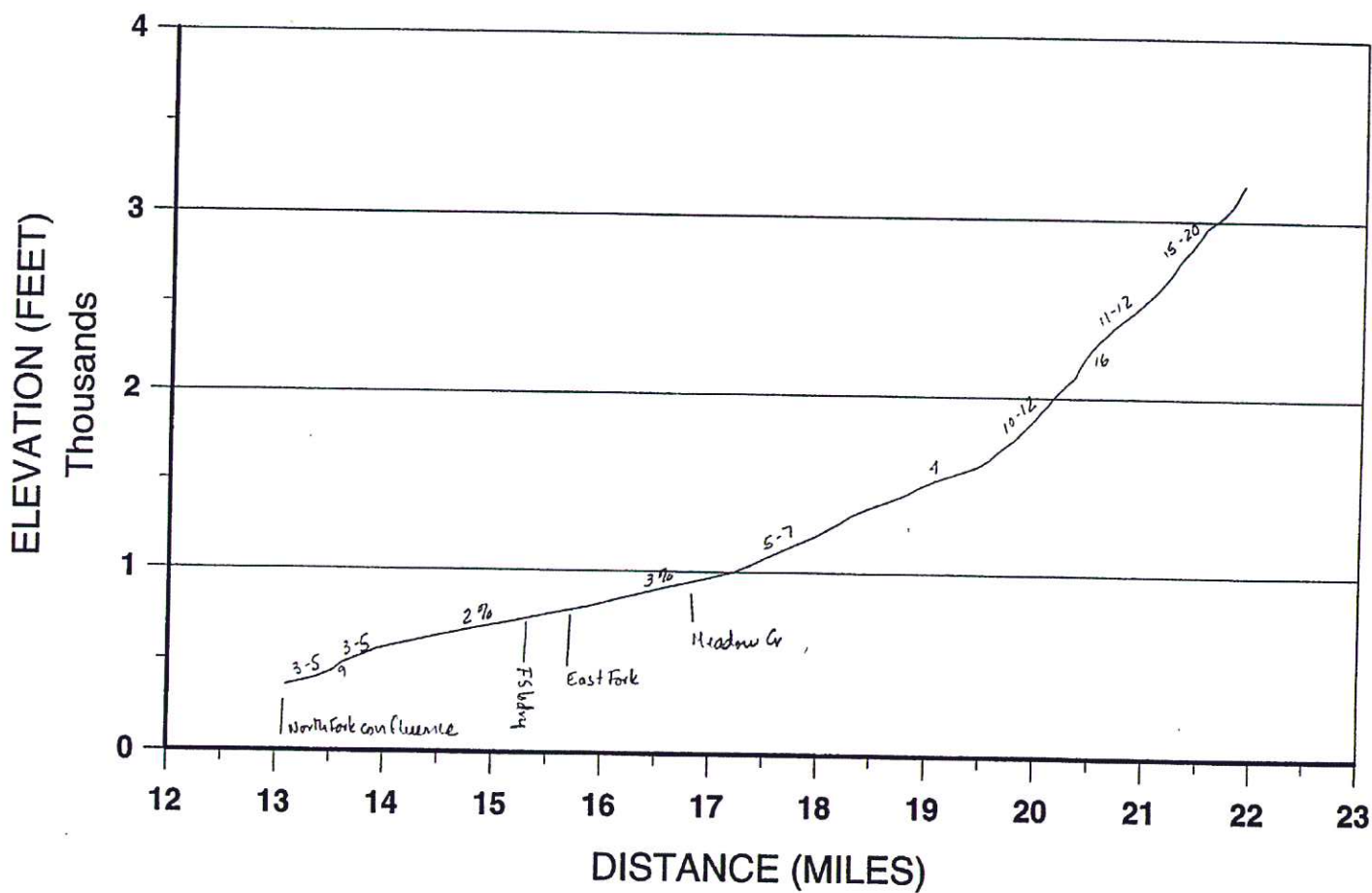
PISTOL RIVER

M.P. 0 TO 12

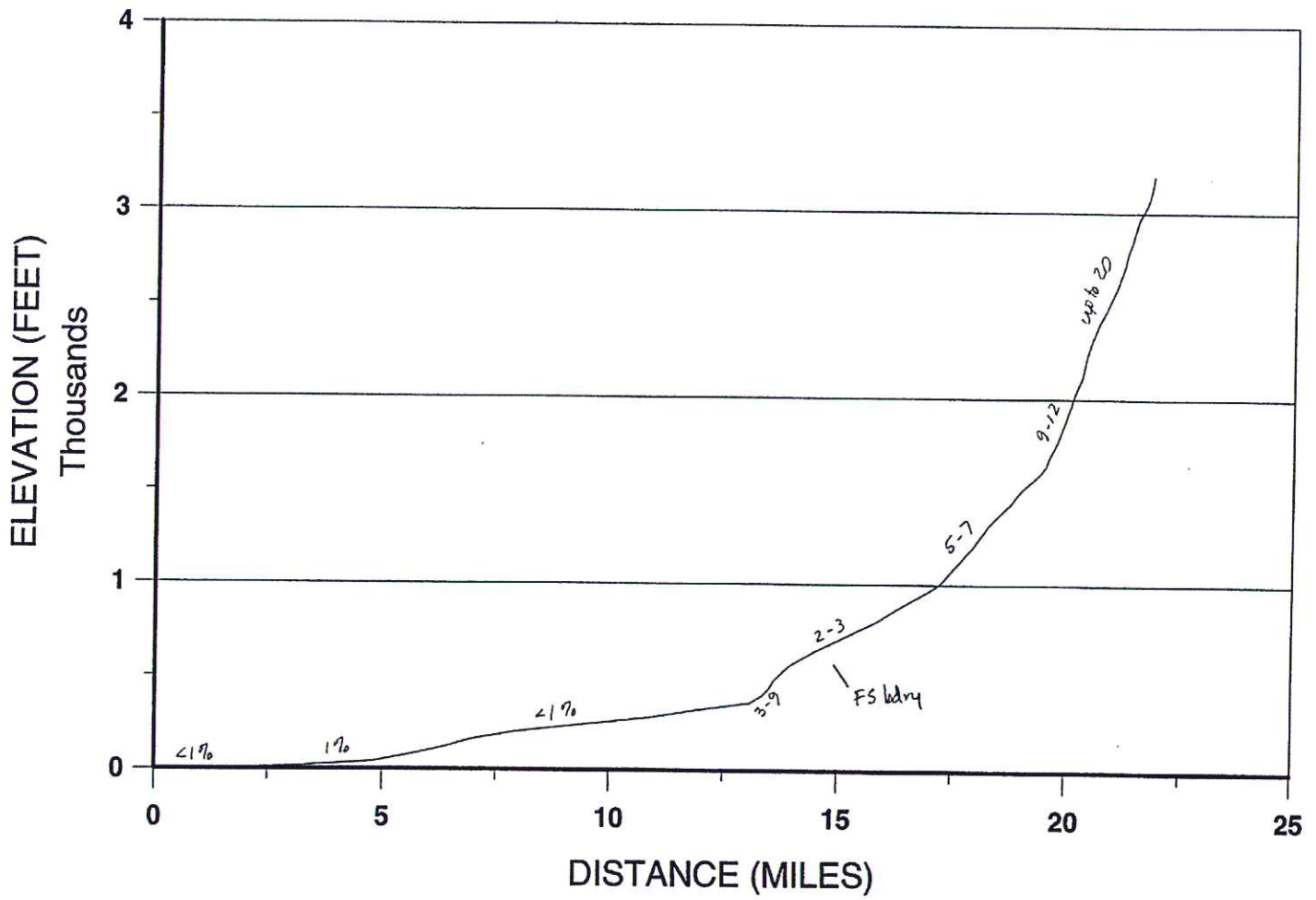


PISTOL RIVER

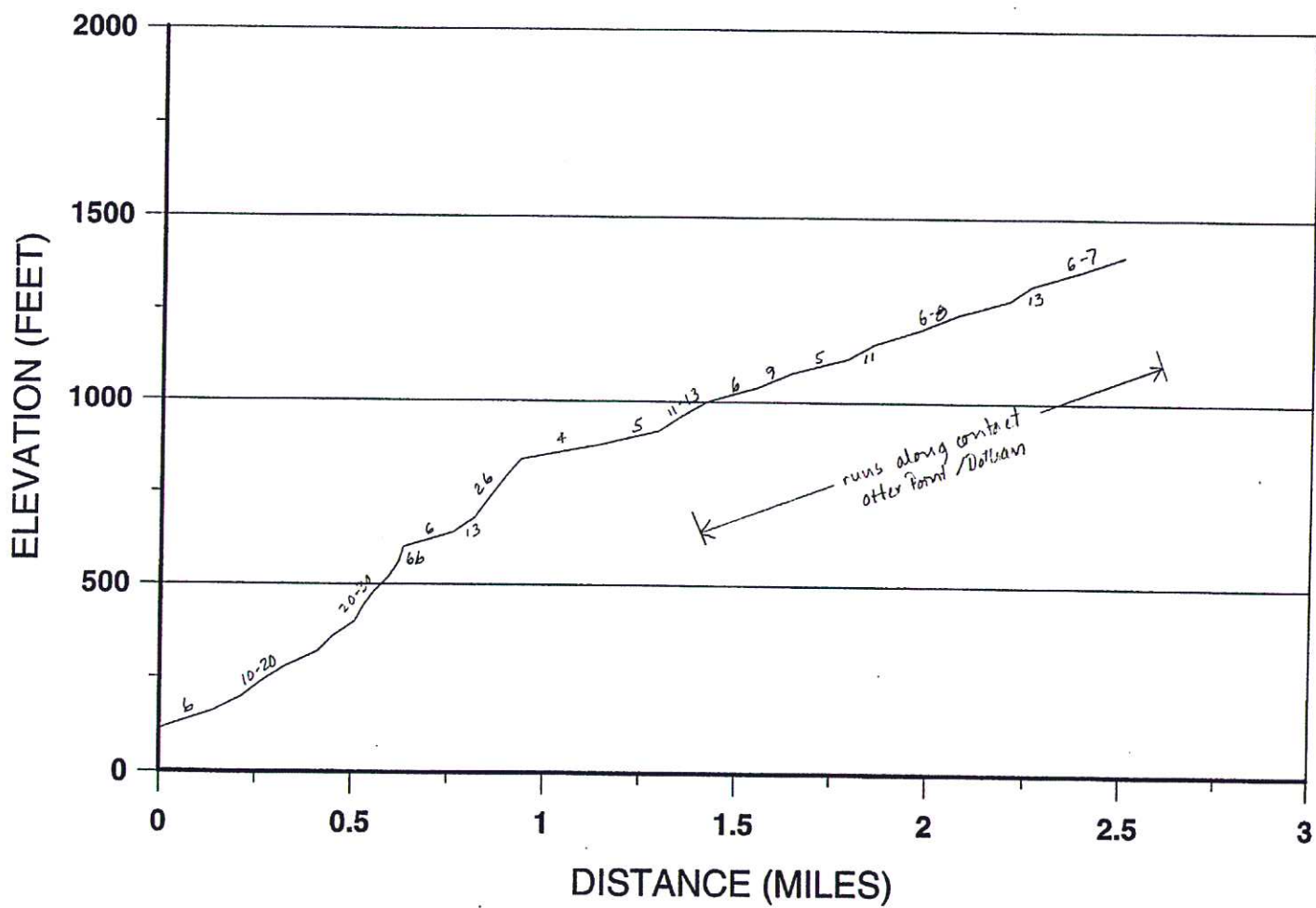
M.P. 12 TO 24



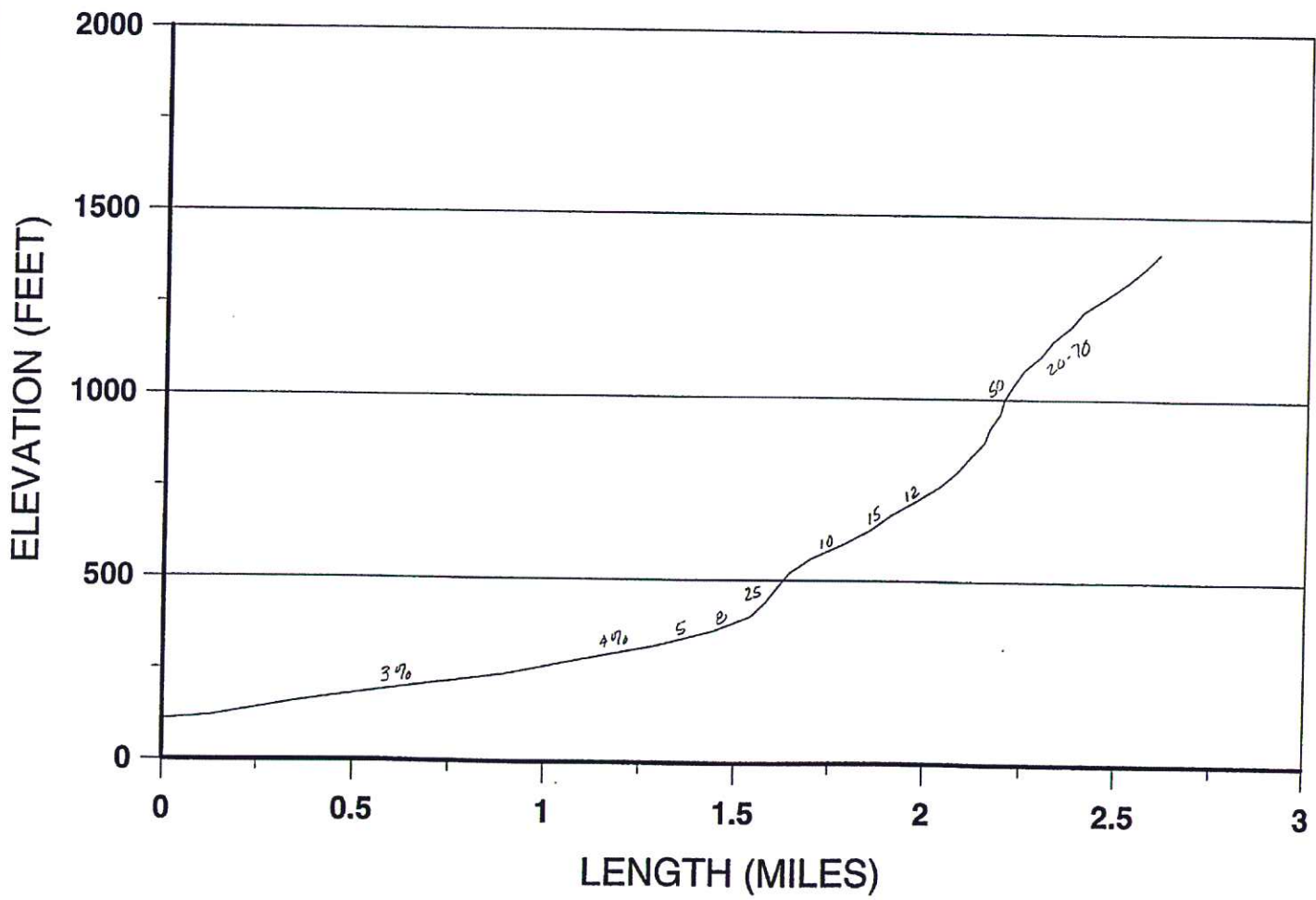
PISTOL RIVER



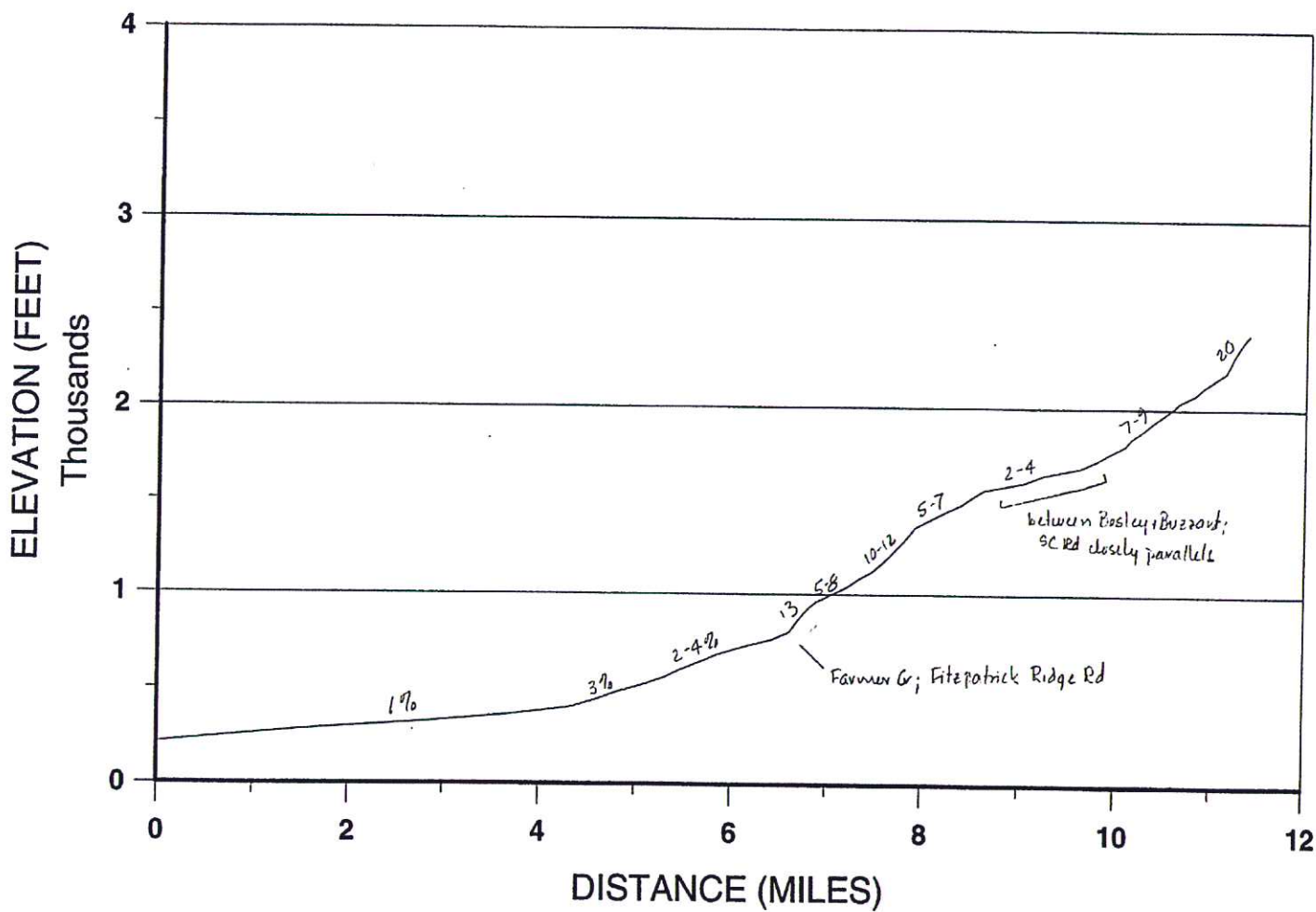
GLADE CREEK



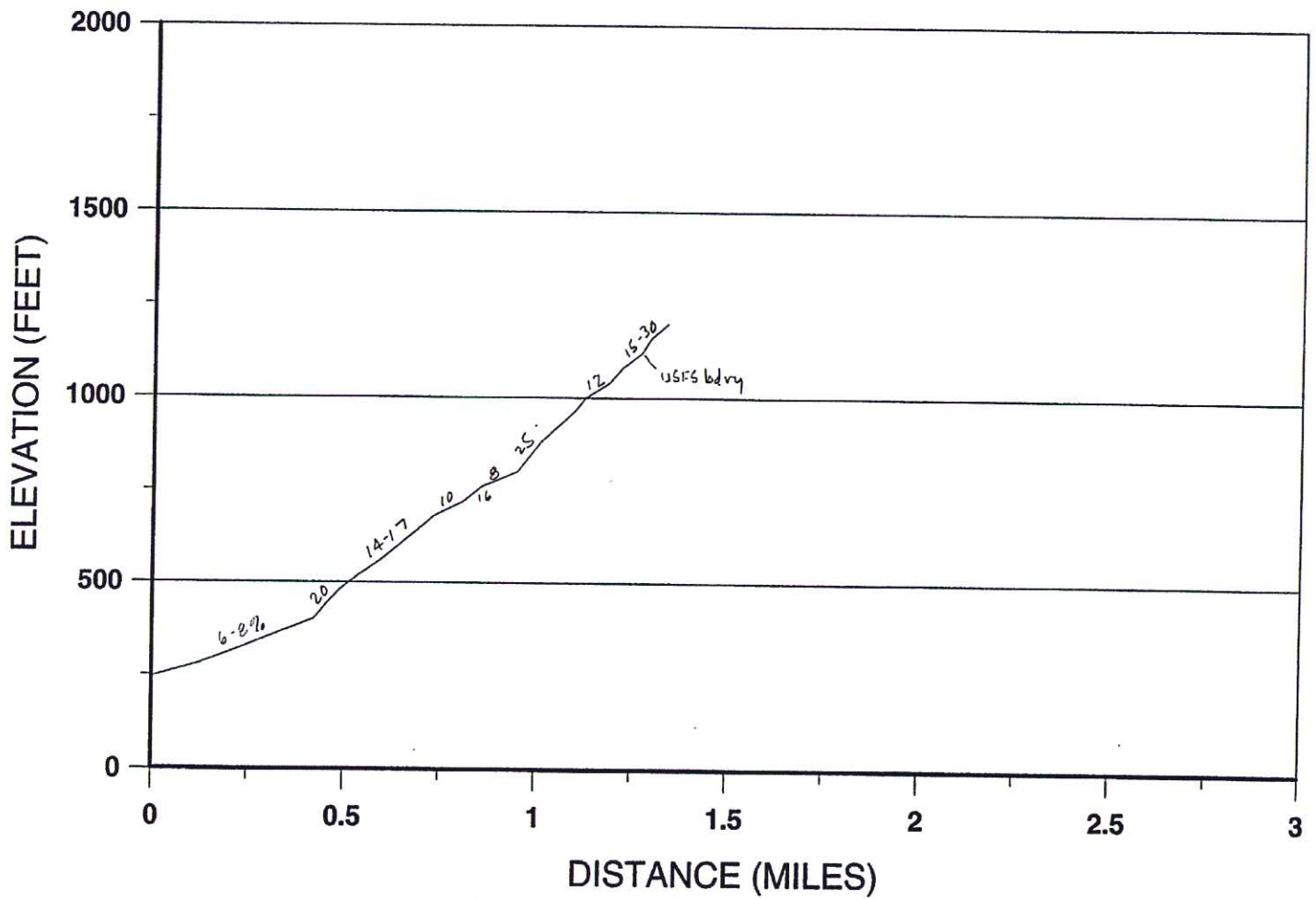
DEEP CREEK



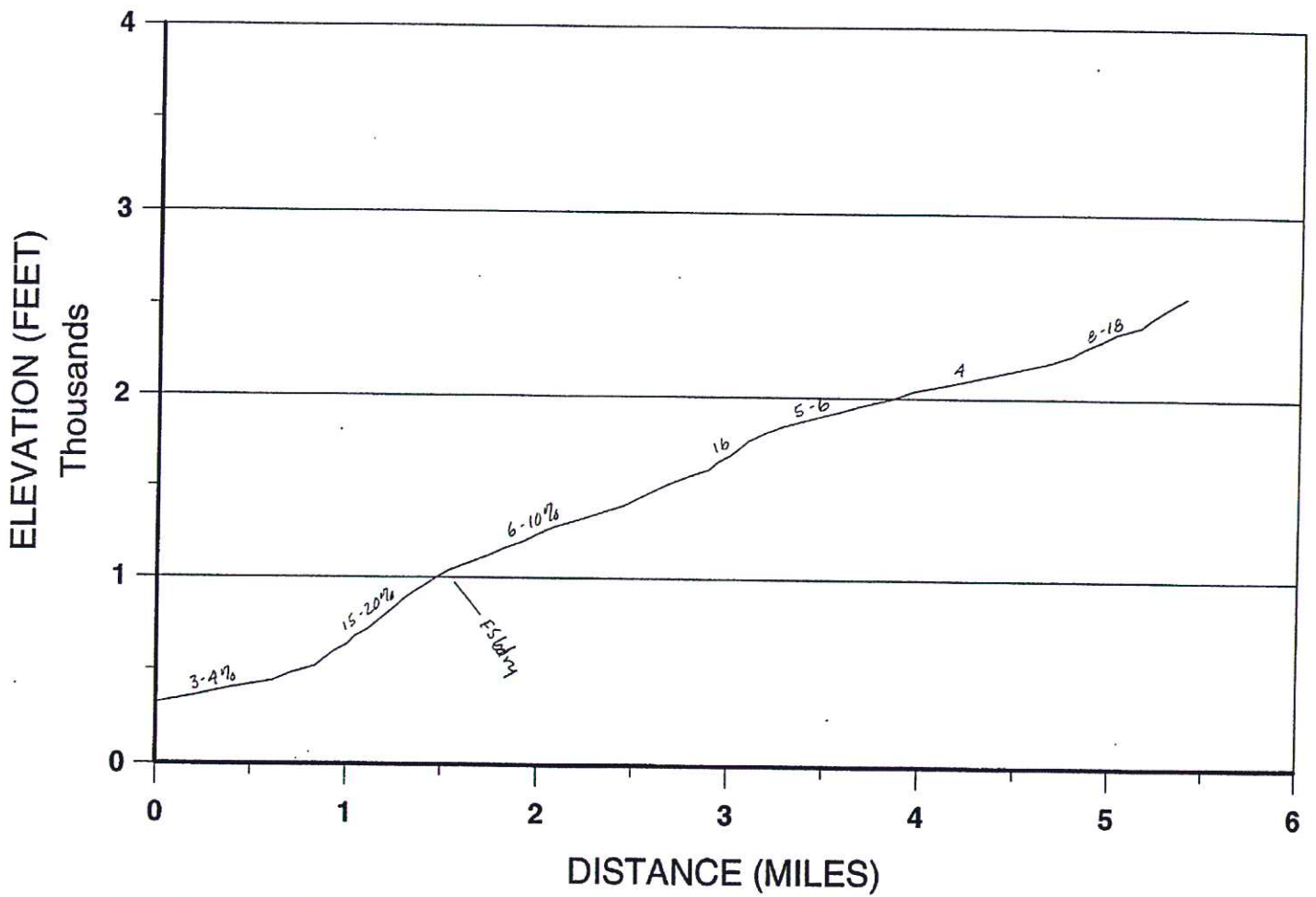
SOUTH FORK PISTOL



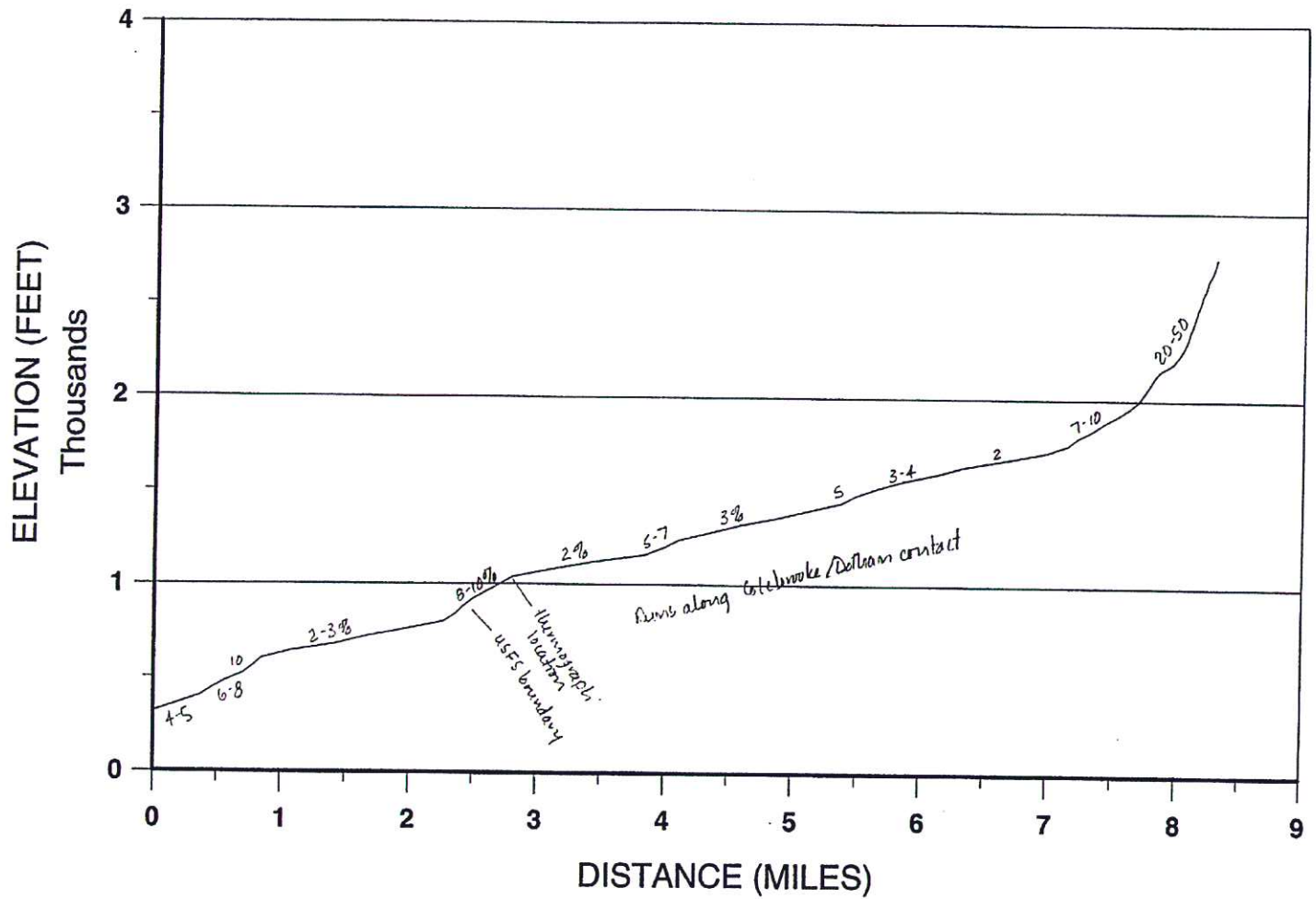
KOONTZ AND DAVIS CREEK



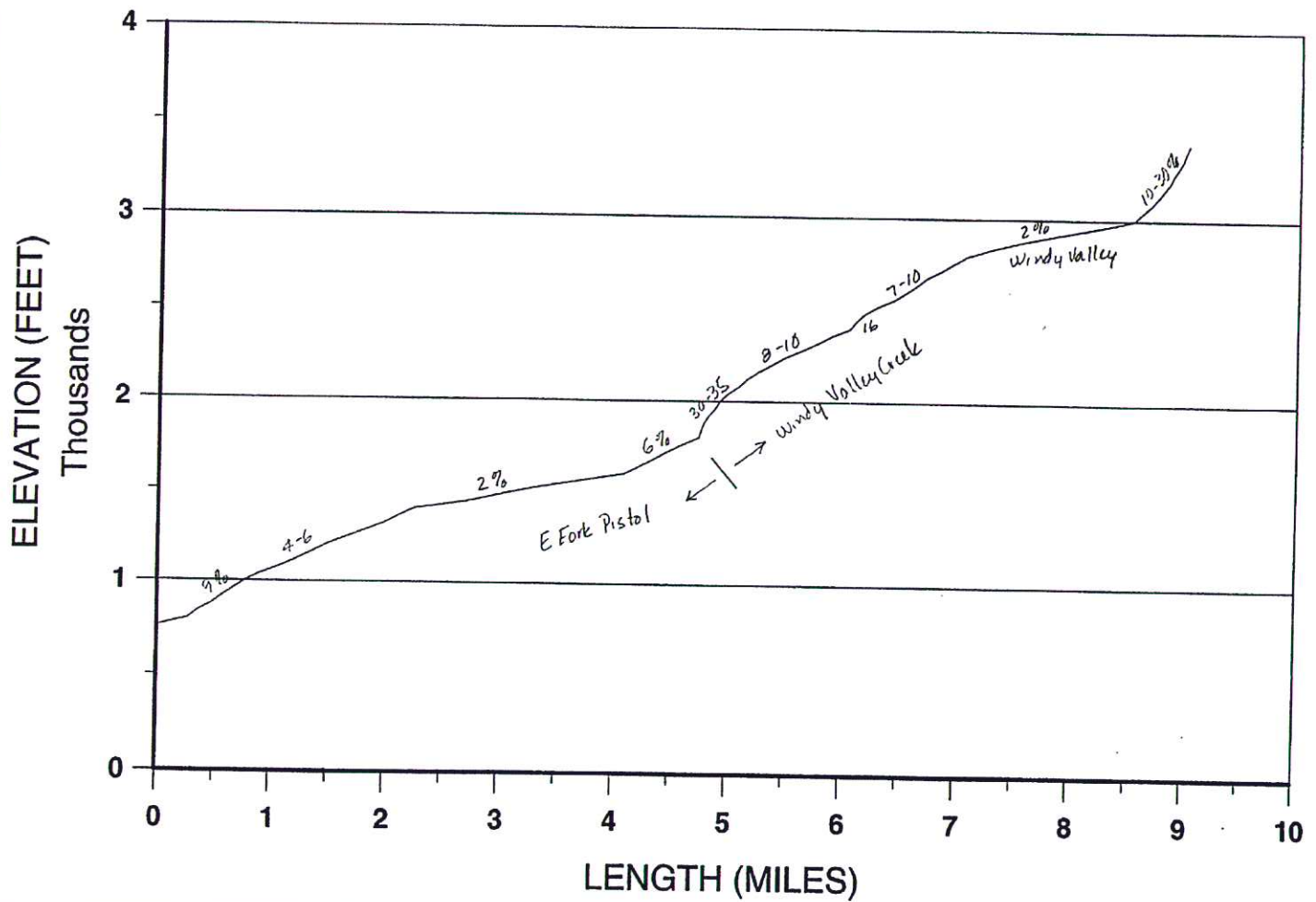
SUNRISE CREEK



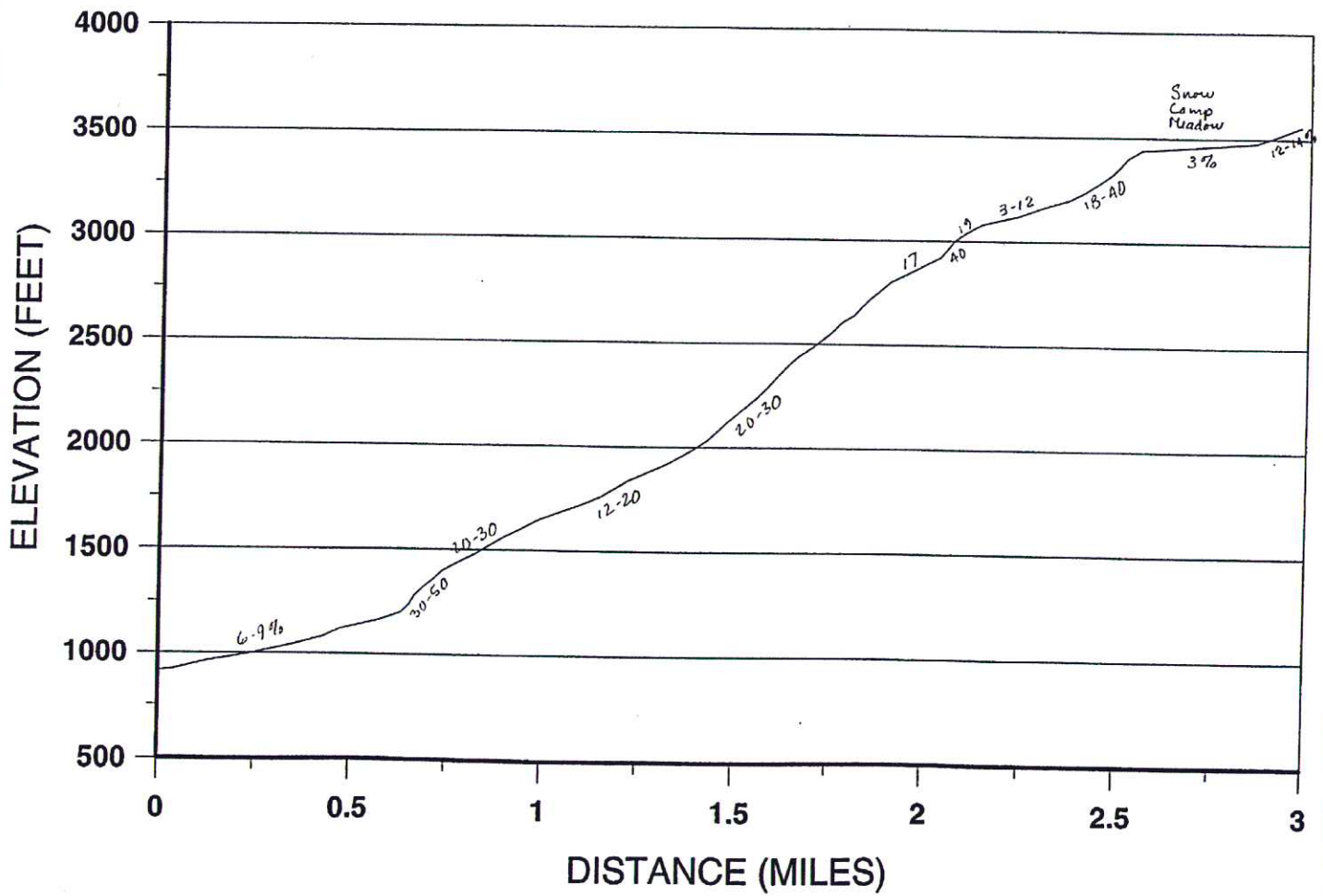
NORTH FORK PISTOL



EAST FORK AND WINDY CREEK



MEADOW CREEK



12. Pistol River Population

Northern Coastal Stratum

Dependent Population

Recovery criteria: 80% of available IP habitat must be occupied in years following spawning of brood years with high marine survival

Habitat likely available to support all life stages

93 mi² watershed (57% Federal ownership)

30 IP-km (19 IP-mi) (23% High)

Dominant Land Uses are 'Timber Harvest' and 'Agriculture'

Key Limiting Stresses are 'Lack of Floodplain and Channel Structure' and 'Degraded Riparian Forest Conditions'

Key Limiting Threats are 'Roads', and 'Timber Harvest'

Highest Priority Recovery Actions

<ul style="list-style-type: none"> • Construct off-channel habitats, alcoves, backwater habitat, and old stream oxbows • Improve timber harvest practices by revising Oregon Forest Practices Act • Reduce sediment delivery to streams from roads 	<ul style="list-style-type: none"> • Reduce pollutants and storm flow runoff; minimize impervious surfaces • Improve agricultural practices • Increase beaver abundance
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12.1 History of Habitat and Land Use

The relevant history of the Pistol River is described in the Pistol River Watershed Analysis (U.S. Forest Service [USFS] 1998b) and the Pistol River Watershed Assessment (Maguire 2001e), which are the basis of this summary. Early settlers likely diminished the habitat capacity of the two lower river tributaries, which no longer have recognizable channels. Two ranches in the grassy meadows near the lower river have been in continuous grazing since that time.

Long-time residents remember a river too cold to swim in most of the summer, before intensive timber harvest began in the 1950s (Maguire 2001e). The 1955 flood carried sediment that filled the lower river, which had previously been the site of major salmon spawning. Where the lower Pistol River had been a sequence of riffles and deep corner pools, it became a series of long riffles with small, shallow pools. Tributaries like Deep Creek were changed by repeated debris torrents after timber harvest, but local residents report prior use by 300 to 400 spawning salmon (Maguire 2001e). These same observers note that the river's flood flows rise and fall much more quickly than before timber harvest and that base flow conditions appear greatly reduced. The mouth of the river now opens later in the fall than it used to. Local residents used to breach the sand berm at the mouth of the Pistol River, but that is no longer allowed (Maguire 2001e).

Private industrial timber land ownership covers 30 percent of the basin and lies between the federally managed land in the upper basin and the ranchland in the lower valley.

Since the Northwest Forest Plan (US Department of Agriculture [USDA] and US Department of the Interior [USDI] 1994) was adopted, there has been a very low level of timber harvest in the Pistol River basin on USFS and BLM lands. Streams in these upper tributaries have started to recover. Private industrial timber harvest is active in the western portion of the Pistol River basin, including much of the South Fork, where harvest rotations are 30 to 50 years.

The intensity of grazing in the lower Pistol River has undoubtedly decreased since a cheese factory located in the lower basin ceased operation in the 1960s, but fields still constrain the lower river channel and occupy its floodplain. Residential development has occurred in the lower Pistol River, but not to the same degree as other southwest Oregon streams like Hunter Creek and the lower Chetco River. Widespread restoration efforts over the last decade have had mixed success (Swanson 2005).

12.2 Historic Fish Distribution and Abundance

The steep headwaters of the upper Pistol River prevent coho salmon access very far up major tributaries except in the South Fork (Maguire 2001e). Modeling by Williams et al. (2006) found high intrinsic potential ($IP > 0.66$) habitat for coho salmon in the lower mainstem Pistol River, estuarine tributary Crook Creek and two unnamed tributaries of the lower river. Additionally, flat reaches in Deep Creek, and South Fork Pistol River tributaries, Farmer and Scott creeks, have patches of high IP (Table 12-1). The two unnamed tributaries of lower Pistol River are not found on U.S. Geological Survey (USGS) 1:24000 topographic map (USGS 1989) and no longer have recognizable stream channels when examined using aerial photos; therefore, they are not listed in Table 12-1. Pistol River had sufficient capacity before disturbance to provide possible refugia for smaller nearby populations and a modest source of colonists to adjacent smaller streams, such as Hunter Creek.

Table 12-1. Tributaries with high IP reaches ($IP > 0.66$) (Williams et al. 2006).

Stream Name	Stream Name	Stream Name
Crook Creek	Farmer Creek	Pistol River Estuary
Deep Creek	Lower Pistol River	Scott Creek

12.3 Status of Pistol River Coho Salmon

Spatial Structure and Diversity

Much of the high IP in the lower mainstem Pistol River and its tributaries is presently unsuitable for coho salmon spawning or rearing. Some low gradient tributaries of the lower river are only partially degraded, but others have been completely lost. Although coho salmon population levels are low, spawning still occurs in the mainstem Pistol River up to the East Fork Pistol, in Crook Creek and Deep Creek, in lower North Fork Pistol River, and in the lower South Fork Pistol River including its tributary Koontz and Davis Creek (Figure 12-1). The Oregon Department of Fish and Wildlife (ODFW; 2005a) conducted a total of 14 snorkel surveys at sites in the Pistol River basin from 2002 to 2004. They found juvenile coho salmon in 3 of 11 reaches (6 of 352 pools) sampled, all at very low levels of ≤ 0.001 coho/m², including in the lower South Fork and two mainstem Pistol River reaches upstream of the North Fork Pistol River. Pistol River coho salmon are still well distributed but persisting at low levels, which is likely diminishing genetic diversity.

Population Size and Productivity

Although ODFW (2005a) found coho salmon juveniles in each year of their surveys between 2002 and 2004, they were found only at extremely low levels. Coho salmon are only intermittently present in Crook Creek (Swanson 2005), a formerly productive tributary. Population estimates for 1998 to 2008 for south coast Oregon coho salmon were provided by ODFW (2009a). They estimated escapement in the Pistol River as 78 coho salmon in 1999, 155 in 2000, 118 in 2002, and zero in all the other years. The lack of consistent spawner returns within year classes and the absence of some year classes indicate very low productivity in the Pistol River. Because there is no information on ODFW survey effort, some qualification of

these results is required. If surveys were only in lower river tributaries, then coho salmon that spawned in upper basin tributaries would not have been counted. Similarly, in high flow years, counts may be difficult or impossible. Consequently, the population may be somewhat larger than estimated and there may have been some coho salmon adults in years when the population estimate was zero. The productivity and size of this population is driven not only by the dynamics of the Pistol River population, but by those of nearby populations as well, which contribute spawners as strays. However, the supply of strays to Pistol River is not expected to be substantial or consistent in the near term because most adjacent populations in the SONCC coho salmon ESU are at low levels.

Extinction Risk

Not applicable because the Pistol River is not an independent population.

Role in SONCC Coho Salmon ESU Viability

Although dependent populations such as the Pistol River are not viable on their own, they do increase connectivity by allowing dispersal among independent populations and provide areas of refugia for other populations, acting as a source of colonists in some cases. The Pistol River may have been a source of colonists to nearby dependent populations, such as Hunter Creek. Any restored habitat in Pistol River provides potential connectivity that assists metapopulation function in the SONCC ESU.

12.4 Plans and Assessments

State of Oregon

Oregon Plan for Salmon and Watersheds
http://www.oregon.gov/OPSW/about_us.shtml

The State of Oregon developed a conservation and recovery strategy for coho salmon in the SONCC and Oregon Coast ESUs (State of Oregon 1997). The Oregon Plan for coho salmon is a comprehensive plan that includes voluntary actions to address all of the threats currently facing coho salmon in these ESUs and involves all relevant state agencies. Reforms to fishery harvest and hatchery programs described in the Oregon Plan were implemented by ODFW in the late 1990s. Many habitat restoration projects have occurred across the landscape in headwater habitat, lowlands, and the estuary.

Report of the Oregon Expert Panel on Limiting Factors

ODFW (2008b) convened a panel of fisheries and watershed science experts as an initial step in their development of a recovery plan for Oregon's SONCC coho salmon populations. Deliberations of the expert panel provided ODFW with initial, strategic guidance on limiting factors and threats to recovery. Based on the input of panel members, ODFW (2008b) summarized the concerns for the Pistol River population as follows:

Key concerns in the Pistol River were a loss of over-winter tributary habitat complexity and floodplain connectivity for juveniles, especially in the lowlands

which are naturally very limited in these systems and have been impacted by past and current urban, rural residential, and forestry development and practices. High water temperatures for summer parr due to a loss of riparian function and channel straightening is also a key concern in these streams. The secondary concern was related to a loss of over-winter, lowland habitat complexity due to past and current agricultural practices.

Cumulative Effects of Southwest Oregon Coastal Land Use on Salmon Habitat

Oregon State University (OSU) Oak Creek Labs conducted a study funded by ODFW and the Oregon Department of Forestry (ODF) to determine relationships between forest harvest and Pacific salmon productivity (Frissell 1992). The study assessed basins along the Oregon coast extending from the Sixes River to the southern border during the period from 1986 to 1992.

Curry County Soil and Water Conservation District

Pistol River Package Monitoring Report

The Pistol River Package Monitoring Report (Swanson 2005) describes conditions in the Pistol River after numerous basin enhancements were carried out, including large wood placement, fish passage improvements, riparian fencing and planting, rock weirs, and bio-engineered bank stabilization structures.

South Coast Watershed Council (Pistol River Watershed Council)

Pistol River Watershed Assessment

This assessment (Maguire 2001e) summarizes conditions, historic changes and restoration needs in the Pistol River basin. Community concerns, salmonid habitat, limiting factors, and prospects for recovery of fisheries and watershed health are included.

Pistol River Action Plan

The Pistol River Action Plan (Massingill 2001e) is a companion to Maguire (2001e), and proposes specific targets for restoration.

United States Forest Service

Pistol River Watershed Analysis

The Pistol River Watershed Analysis was written by the USFS (1998b) in accordance with the Northwest Forest Plan (USDA and USDI 1994) and sets a course of restoration for their ownership in the Pistol River. Planned activities include road decommissioning, hardwood thinning and conifer planting in riparian zones and combating the spread of Port Orford root disease in the watershed.

12.5 Stresses

Table 12-2. Severity of stresses affecting each life stage of coho salmon in the Pistol River. Stress rank categories, assessment methods, and data used to assess stresses are described in Appendix B.

Stresses ²		Egg	Fry	Juvenile ¹	Smolt	Adult	Overall Stress Rank
1	Lack of Floodplain and Channel Structure ¹	High	Very High	Very High ¹	Very High	High	Very High
2	Degraded Riparian Forest Conditions ¹	-	Very High	Very High ¹	High	High	Very High
3	Altered Sediment Supply	Very High	Very High	Very High	High	High	Very High
4	Impaired Water Quality	Medium	High	Very High	High	Low	High
5	Altered Hydrologic Function	High	High	High	High	Low	High
6	Impaired Estuary/Mainstem Function	-	Low	Very High	High	Medium	High
7	Barriers	-	Low	Low	Low	Low	Low
8	Adverse Hatchery-Related Effects	Low	Low	Low	Low	Low	Low
9	Adverse Fishery- and Collection- Related Effects	-	-	Low	Low	Low	Low
¹ Key limiting stresses and limited life stage.							
² Increased Disease/Predation/Competition is not considered a stress to this population.							

Key Limiting Stresses, Life Stages, and Habitat

The upper South Fork Pistol River above Farmer Creek may provide coho salmon refugia because it has suitable gradient, cool water temperatures, and pools greater than 1 meter deep; however, there are no data documenting coho presence in that reach. Otherwise there are currently no functioning coho salmon refugia in the Pistol River or its tributaries. Crook Creek is too warm at its convergence with the mainstem to support coho salmon (Maguire 2001e) and Deep Creek has excessive amounts of fine sediment (Swanson 2005).

The juvenile life stage is most limited and quality winter rearing habitat, as well as summer rearing habitat, is lacking as vital habitat for the population. Juvenile summer rearing habitat is impaired by an excess of fine sediment, which has filled in the mainstem, tributary channels, and the estuary, and contributes to high water temperature. Lack of floodplain and channel structure due to channelization and filling of the floodplain has eliminated much of the coho salmon rearing habitat in the basin. Winter rearing habitat is often formed by instream large wood, but is also found in estuaries and floodplain wetlands. Degraded riparian conditions have eliminated the source of large wood recruitment and floodplain wetlands have been filled or disconnected from the river. Overall, these findings are consistent with those of the Oregon Expert Panel (Section 12.4), except that the expert panel did not consider excess sediment to be a concern.

Lack of Floodplain and Channel Structure

Long-time lower Pistol River residents described the transformation of the channel from one with well-developed deep pools joined by short riffles to one dominated by riffles with few pools of limited depth (Maguire 2001e). High fine sediment load and bedload movement inhibit channel recovery and also creates adverse conditions for eggs because redds are scoured out or deposits smother eggs and prevent fry emergence.

Before disturbance, the Pistol River riparian zone was comprised of large conifers that lived hundreds of years and then fell into streams, forming pools and complex habitats with which coho salmon co-evolved. Large wood was swept from many mainstem and tributary channels in the 1955 and 1964 floods, which lead to a loss of habitat complexity. Current large wood recruitment is also low. Large wood surveys by ODFW show that all Pistol River reaches have poor levels of large wood (<1 key piece per 100m). USFS large wood surveys found very good levels of large wood in the upper East Fork Pistol River, North Fork Pistol River, and Sunrise Creek on USFS lands, but these streams are largely inaccessible to coho salmon.

Disconnection of the lower Pistol River and estuary from its floodplain and confinement of its channel (Figure 12-2) are major impediments to lower river recovery. Lower Crook Creek has high IP, but its lower reaches are channelized also.

ODFW and USFS habitat data indicate that in the mainstem Pistol River, pool frequencies are greater than 35 percent, which they rate as good. An upper East Fork Pistol River reach, lower Meadow Creek, and the South Fork tributary Koontz and Davis Creek all had poor ratings (<10 percent pools). Pool frequency is only fair (10 to 25 percent) in the lower North Fork, lower Sunrise Creek, Deep Creek, and South Fork tributaries including Scott Creek.

Pool depth of greater than one meter (3.3 ft.) is rated as good by ODFW, and on that basis the South Fork and mainstem Pistol River below the East Fork have good pool depth. However, the Pistol River formerly had pools that were up to 20 feet deep (Maguire 2001e).



Figure 12-2. Aerial photo of Pistol River showing confinement by a levee. The levee separates the active channel from adjacent farm and industrial gravel operation to the west (left). The levees also cut off the river from oxbows and meanders on the east bank (right), which would have formerly created ideal coho salmon rearing areas. Yellow arrows highlight pockets of residential development.

Degraded Riparian Forest Conditions

ODFW surveys found fewer than 75 conifers greater than 36" in diameter per 1000 ft. on the South Fork Pistol River, mainstem Pistol River downstream of the East Fork, Sunrise Creek, and Deep Creek. This low density of large trees in the riparian zone has led to poor bank structure, reduced shade, and reduced thermal and nutrient buffering. The riparian zone of the mainstem Pistol River is predominantly hardwood trees (Figure 12-3), with very few large conifers. Willow and alder are the most abundant species in the alluvial valleys, although cottonwoods were once a significant part of the riparian community (Maguire 2001e). High bedload transport in the lower Pistol River is likely causing high mortality of both conifers and alders, because these species die if their root systems are buried.

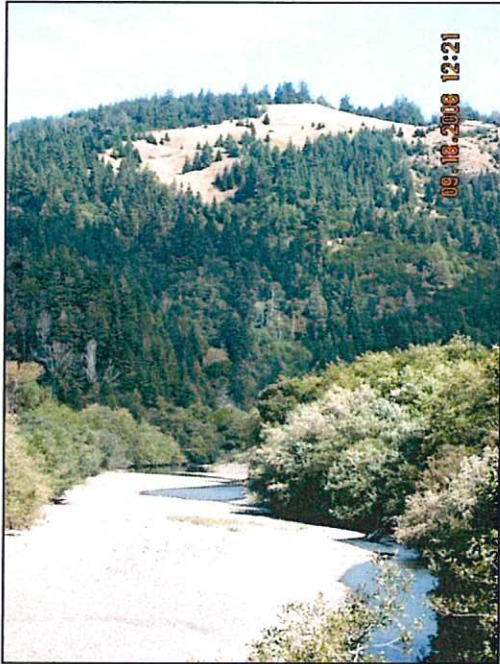


Figure 12-3. Photo of the lower mainstem Pistol River. The river has a willow and alder riparian zone. Note also excess sediment and lack of channel structure.

Altered Sediment Supply

Sediment contribution from landslides and erosion occurs naturally in the Pistol River basin; however, roads, timber harvest, and bank erosion following removal of riparian vegetation have elevated fine sediment input. For example, debris torrents in 2003 covered large wood restoration projects with approximately 100,000 to 200,000 cubic yards of sediment in lower Deep Creek (Swanson 2005). Debris flows significant enough to alter channel structure occurred in the South Fork Pistol River and upper mainstem Pistol River in 1996 (Maguire 2001e). Excess fine sediment directly impacts coho salmon egg viability and can reduce food for fry, juveniles and smolts. Poor pool frequency and depth throughout the Pistol River basin (Maguire 2001e) is likely due to elevated levels of fine sediment partially filling pools, a lack of scour-forcing obstructions such as large wood, and in some reaches diminished scour due to channel widening.



Figure 12-4. Photo of Pistol River estuary. View is looking downstream from the Pistol River Road bridge. The large gravel bars occupy a formerly deep channel here, suggesting excess fine sediment.

Impaired Water Quality

The mainstem Pistol River is listed under the Clean Water Act Section 303(d) for impaired temperature and dissolved oxygen from the mouth upstream to RM 19.8, and the lower half mile of the South Fork is also listed as temperature impaired. Maguire (2001e) reported that the ODEQ maximum floating weekly maximum temperature (MWMT) threshold for impairment of 64 °F was exceeded at all stations measured, indicating lack of suitability for coho salmon rearing; however, there are a few additional stations/years in the ODEQ LASAR database (see Appendix B) with temperatures below the 64 °F threshold: Glade Creek at mouth, upper Farmer Creek, South Fork Pistol River at upper crossing, Deep Creek at mouth (2 of 8 years), and North Fork Pistol River near mouth (1 of 6 years). Figure 12-5 shows water temperatures for the Pistol River from 1995 to 2000 as reported by Maguire (2001e). The lower East Fork Pistol River and Deep Creek are almost cool enough to provide suitable coho salmon habitat. Lower reaches of the North Fork and the upper mainstem Pistol River are showing improvement (65 °F to 69 °F), but the South Fork is much too warm to support coho salmon (71.4 °F to 72.8 °F). Lower mainstem Pistol River temperatures are also too warm (71.8 °F -75 °F). The Pistol River warms 2 to 4 °F between the East Fork Pistol and South Fork Pistol (Maguire 2001e).

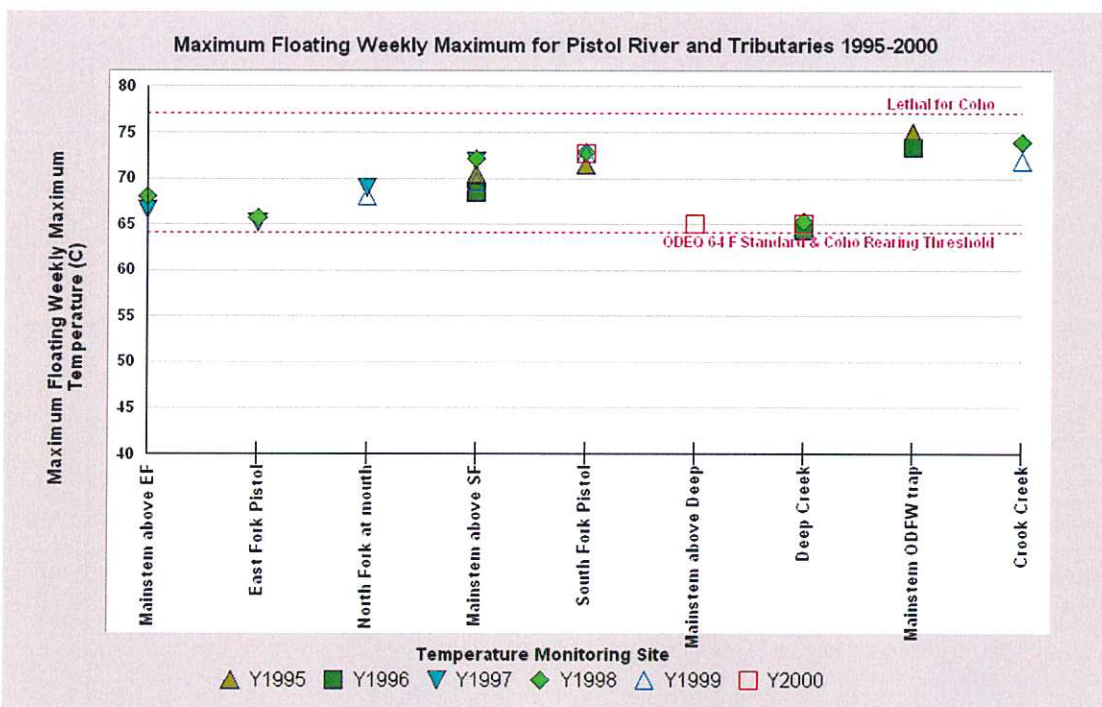


Figure 12-5. Maximum floating weekly maximum water temperatures for the Pistol River. Data includes tributaries and shows a pattern of exceeding coho salmon rearing requirements (McCullough 1999) and ODEQ standards (64 °F). The lethal temperature reference value of 77 °F is from Sullivan et al. (2000).

Water quality in the Pistol River is also compromised by low dissolved oxygen (DO) levels. The low DO levels are likely due to stagnation and to algal blooms, which are encouraged by excess nutrients and lack of shade. There are seasonal problems with elevated phosphorous, *E. coli* and biological oxygen demand (Maguire 2001e).

Altered Hydrologic Function

Changes in Pistol River basin hydrology have led to a substantial decrease in available habitat for coho salmon, resulting in a high level of stress for most life stages. Excess fine sediment blocks surface and groundwater interactions by clogging interstitial spaces of stream gravels that are known to help maintain cool temperatures. This type of connection likely created cold water strata at depth in the deeper pools that were formerly common, even when surface waters were warm. Some Pistol River Watershed Council members believe that the summer base flows have also diminished (Maguire 2001e). Studies elsewhere in the Pacific Northwest indicate that converting forest stands of fewer large trees to ones with many small trees can decrease base flows for several decades (Murphy 1995).

The hydrology of the lower basin has been substantially altered through disconnection of the floodplain and channelization. High road densities in some Pistol River watersheds are likely to lead to increased peak flows. These peak flows can scour eggs and flush fry, juveniles, and smolts from the river system.

Impaired Estuary/Mainstem Function

The Pistol River estuary retains little of its historic form or function and provides little opportunity for estuarine rearing. Studies elsewhere in Oregon found that estuarine tributaries and sloughs can be important habitat types for rearing coho salmon juveniles (Koehler and Miller 2003, Miller and Sadro 2003). The remnants of past estuarine habitat indicate the Pistol River estuary was formerly large with numerous tributaries, tidal channels, and likely tidal wetlands. The diking and filling for conversion to agricultural uses has completely eliminated these habitats. Lack of riparian vegetation in the estuary and the accretion of fine sediment have led to highly degraded water quality and habitat conditions. Long-time residents remember pools up to 20 feet deep, while ODFW 1991 habitat data indicated a mean pool depth of only 3.3 feet in the lowermost Pistol River reach (Maguire 2001e). Long-time residents noted a decrease in estuarine use by smelt, which is likely due to a change in seasonality of the opening of the mouth. Crook Creek, the largest estuary tributary, loses surface flow during the summer for its last 500 feet (Swanson 2005), seasonally preventing fish use of this important rearing stream. Highway 101 bisects the estuary near the mouth of the river, constraining the estuary and preventing full tidal inundation upstream. The estuary to the west of Highway 101 encompasses a fair amount of sand and mudflat habitat that could be used for rearing, but it lacks complex habitat features such as large wood or deep pools. Reduced estuarine function poses an overall high stress to Pistol River coho salmon.

Barriers

Although road densities in the Pistol River basin are high, which increases risk of passage problems, coho salmon still have access to most of the basin (Maguire 2001e). The dry reach at the mouth of Crook Creek (Swanson 2005) is a seasonal barrier to juveniles. A major passage problem into Deep Creek has been resolved by replacing a culvert with a bridge (Swanson 2005). Consequently, barriers represent a low stress.

Adverse Hatchery-Related Effects

Hatchery-origin coho salmon may stray into Pistol River; however, the proportion of adults that are of hatchery origin is likely less than five percent and there is no hatchery in the basin producing other species of salmonids. Therefore, adverse hatchery-related effects pose a low risk to all life stages.

Adverse Fishery- and Collection-Related Effects

Based on estimates of the fishing exploitation rate, as well as the status of the population relative to depensation and the status of NMFS approval for any scientific collection (Appendix B), these activities pose a low stress to juveniles, smolts, and adults.

12.6 Threats

Table 12-3. Severity of threats affecting each life stage of coho salmon in the Pistol River. Threat rank categories, assessment methods, and data used to assess threats are described in Appendix B.

Threats ²		Egg	Fry	Juvenile ¹	Smolt	Adult	Overall Threat Rank
1	Roads ¹	High	Very High	Very High ¹	Very High	Very High	Very High
2	Timber Harvest ¹	Very High	Very High	Very High ¹	Very High	Medium	Very High
3	Channelization/Diking	Medium	Very High	Very High	Very High	Very High	Very High
4	Agricultural Practices	Low	Medium	High	High	High	High
5	Dams/Diversion	Low	Medium	Medium	Medium	Low	Medium
6	Urban/Residential/Industrial Dev.	Low	Medium	Medium	Medium	Medium	Medium
7	High Severity Fire	Low	Medium	Medium	Medium	Medium	Medium
8	Climate Change	Low	Low	Medium	Medium	Medium	Medium
9	Mining/Gravel Extraction	Low	Low	Low	Low	Low	Low
10	Road-Stream Crossing Barriers	-	Low	Low	Low	Low	Low
11	Hatcheries	Low	Low	Low	Low	Low	Low
12	Fishing and Collecting	-	-	Low	Low	Low	Low

¹Key limiting threats and limited life stage.
²Invasive and Non-Native/Alien Species is not considered a threat to this population.

Key Limiting Threats

The two key limiting threats, those which most affect recovery of the population by influencing stresses, are roads and timber harvest.

Roads

Roads pose an overall very high threat to the Pistol River coho salmon population. There are high road densities (2.5 to 3.0 mi/mi²) in the South Fork Pistol River and very high densities (>3.0 mi/mi²) in the Upper and Lower Pistol River. Road densities are medium (1.6-2.5 mi/mi²) in the East Fork Pistol River, North Fork Pistol River, and in mainstem watersheds between the East Fork and South Fork Pistol River. Additionally there is a high number of road stream crossings, streamside roads, and many road segments that cross steep unstable slopes or erodible soils. These conditions all pose a risk of elevated fine sediment yield. Road density estimates are conservative because they do not include skid roads, landings, or temporary roads. The main

timber harvest haul road along the Pistol River has initiated large landslides (Maguire 2001e). A main haul road also follows the South Fork Pistol River.

Timber Harvest

Timber harvest poses an overall very high threat to the coho salmon population. Private industrial timber lands managed under the Oregon Forest Practices Act occupy 30 percent of the landscape, but they coincide with nearly all the low gradient intrinsic potential streams. Therefore, these lands have a disproportionate effect on coho salmon. The high harvest rates and associated roads negatively impact multiple aspects of coho salmon habitat. Deep Creek is an example of where short timber harvest rotations are likely inhibiting channel and coho salmon recovery.

Studies of adjacent southwest Oregon basins found that “downstream, cumulative impacts of human activity are pervasive in southwest Oregon, wherever logging has occurred over an extensive portion of a drainage basin or has involved operations on steep, unstable slopes. The downstream effects of channel sedimentation and aggradation can severely damage streams even where buffer zones of riparian vegetation have been retained, and such effects persist more than 20-30 years after logging activities have ceased” (Frissell 1992).

Channelization/Diking

Channelization and diking have occurred in high IP reaches in the lower tributaries, along the lower mainstem, and in the estuary. Crook Creek had ideal gradient and valley width for coho salmon, but the channel has been straightened and greatly reduced in complexity (Figure 12-6). The lower mainstem and estuary have been similarly channelized and disconnected from the floodplain and adjacent wetlands. Roads that follow the river or tributaries may cut them off from their floodplains as well.

Agricultural Practices

The same farms and ranches have operated in the lower river for well over 100 years and levels of grazing are likely not as high as they were in the past. Nonetheless, long term activities have led to the disconnection of the lower Pistol River and estuary from floodplains (Figure 12-2). Lower Pistol River tributaries have also been profoundly altered; two unnamed tributaries with high IP now have unrecognizable channels. Crook Creek has also been straightened and disconnected from its floodplain (Figure 12-6), but landowners have been trying to restore it (Swanson 2005). The negative effects of pesticides and herbicides on Pacific salmon species and aquatic ecosystem function are becoming more well documented regionally (National Marine Fisheries Service (NMFS) 2008, Laetz et al. 2009), but the extent of use of these chemicals by Pistol River farms and ranches is unknown.

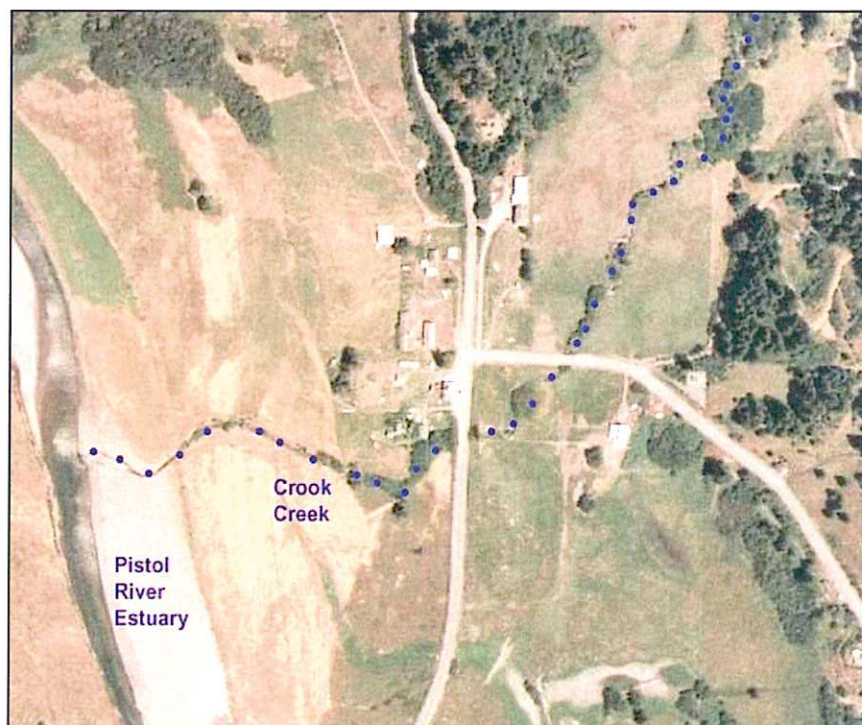


Figure 12-6. Photo of Crook Creek joining the Pistol River estuary. Convergence is at center left. The creek's channel is straightened and confined. It also lacks a functional riparian zone.



Figure 12-7. Photo of the mainstem Pistol River and the South Fork. Also shown is lower tributary Koontz and Davis Creek. Note extensive clear cuts and high road density.

Dams/Diversions

There are no known dams on the Pistol River. The Oregon Water Resources Department has a Pistol River instream water right of 15 cfs (Maguire 2001e). The sum of the diversion water rights in the Pistol River basin is 1.5 cfs, primarily for agricultural use, but only 0.1 cfs of this is senior to the instream right (Maguire 2001e). The effects of water diversions on coho salmon in the Pistol River basin are not well understood. Crook Creek, an important coho salmon tributary, loses surface flow at the downstream end of an agricultural area. However, the contribution of diversions to the dry creek condition is unknown. A potentially significant contributor to the diminished flow in the Pistol River is the aggradation of the stream bed, with more flow now sub-surface.

Urbanization/Residential/Industrial Development

Both commercial and residential development is occurring in the sensitive lower river and estuary. This area once held some of the most productive coho salmon habitats.

High Severity Fire

High severity fires in this basin pose a medium threat to this coho salmon population. The Pistol River is very near the coast and has moderate air temperatures and high rainfall. Consequently, it should have naturally low fire risk; however, hot (100 °F) 35 mph east winds occur seasonally, which can cause extreme seasonal fire risk (Maguire 2001e). Large areas of the Pistol River basin are presently covered by even-aged plantations and hardwoods that elevate fire risk. Sudden oak death syndrome is known to occur in the adjacent North Fork Chetco basin (Oregon Department of Agriculture (ODA) 2008) and could become a significant contributor to increased fire risk if it causes mortality of tanoaks in the Pistol River basin.

Climate Change

There is low risk of average temperature increase over the next 50 years (Appendix B). Modeled regional average temperature shows a moderate increase over the next 50 years (Appendix B). Average temperature could increase by up to 1 °C in the summer and by a similar amount in the winter. The risk of sea level rise is also low (Appendix B, Thieler and Hammer-Klose 2000). Adults may be negatively impacted by climate-related ocean acidification, changes in ocean conditions, and prey availability (see Independent Science Advisory Board 2007, Feely et al. 2008, Portner and Knust 2007). Overall, climate change poses a medium threat to the population.

Mining/Gravel Extraction

Mining poses a low threat to the coho salmon population. Pistol River does not have geologic formations that bear gold and so was spared mining impacts that were experienced by interior basins of the Rogue River. Gravel mining can inhibit channel recovery by flattening the stream's profile upstream and downstream from the point of extraction. The Sixes River company gravel permit for operation in the Pistol River has expired and there is no prospect of gravel mining activity in the near future (Wheeler 2009).

Road-Stream Crossing Barriers

Road-stream crossing barriers pose a low threat to the coho salmon population. Although there are many road-stream crossings on private industrial timber lands in the western Pistol River basin, many are well above the range of coho salmon. Maguire (2001e) and the ODFW (2008e) fish passage database do not indicate that road-stream crossing barriers are a significant problem for coho salmon distribution in the Pistol River basin.

Hatcheries

Hatcheries pose a low threat to all life stages of coho salmon in the Pistol River population area. The rationale for these ratings is described under the “Adverse Hatchery-Related Effects” stress

Fishing and Collecting

Based on estimates of the fishing exploitation rate, as well as the status of the population relative to depensation and the status of NMFS approval for any scientific collection (Appendix B), these activities pose a low threat to juveniles, smolts, and adults.

12.7 Recovery Strategy

The most immediate need for habitat restoration and threat reduction in the Pistol River is in those areas currently occupied by coho salmon in mainstem Pistol River, Crook Creek, Deep Creek, North Fork Pistol River, South Fork Pistol River, and Koontz and Davis Creek.

Unoccupied areas must also be restored to provide enough habitat for coho salmon recovery, and the places with the greatest chance of success are those with high IP, such as the lower mainstem Pistol River, the estuary, Crook Creek, Deep Creek, Scott Creek, and Farmer Creek.

The Pistol River population is considered dependent and therefore cannot be viable on its own; however, it is necessary to restore habitat within the basin so that it can support all life stages of coho salmon and provide connectivity between other populations in the ESU. The recovery criterion for this population is that 80% of available IP habitat must be occupied in years following spawning of brood years with high marine survival.

The most important factor limiting recovery of coho salmon in the Pistol River is a deficiency in the amount of suitable rearing habitat for juveniles. The processes that create and maintain such habitat must be restored by increasing habitat complexity within the channel, re-establishing off-channel rearing areas, restoring riparian forests, and reducing threats to instream habitat. The effects of fishing on this population’s ability to meet its viability criteria should be evaluated.

Table 12-4 on the following page lists the recovery actions for the Pistol River population.

Pistol River Population

Table 12-4. Recovery action implementation schedule for the Pistol River population. Recovery actions for monitoring and research are listed in tables at the end of Chapter 5.

Action ID	Target	KLS/T	Strategy	Action Description	Area	Priority
Step ID	Step Description					
SONCC-PisR.19.3.3	Timber Harvest	Yes	Improve wood recruitment, bank stability, shading, and food subsidies	Improve timber harvest practices	All areas where coho salmon would benefit immediately	2b
SONCC-PisR.19.3.3.1	Determine how to revise Oregon Forest Practice Rules so that they do not limit recovery of SONCC coho salmon and make appropriate revisions					
SONCC-PisR.19.3.3.2	Adopt rules for fish-bearing streams sufficient to protect both water quality and fish habitat					
SONCC-PisR.19.3.3.3	Adopt rules to increase protection of non-fish-bearing streams that address practices that adversely impact water quality and fish habitat					
SONCC-PisR.19.3.3.4	Ensure management measures for landslide prone areas include protection of water quality and fisheries habitat					
SONCC-PisR.19.3.3.5	Until more permanent regulatory mechanisms can be put in place, immediately adopt interim rules that increase protection for salmon habitat in forested areas, including increased natural recruitment of large wood on perennial and intermittent streams likely to deliver wood downstream, increased shade on all perennials, and protective buffers on small intermittent streams.					
SONCC-PisR.19.3.40	Timber Harvest	Yes	Improve wood recruitment, bank stability, shading, and food subsidies	Improve timber harvest practices	Population wide	2c
SONCC-PisR.19.3.40.1	Determine how to revise Oregon Forest Practice Rules so that they do not limit recovery of SONCC coho salmon and make appropriate revisions					
SONCC-PisR.19.3.40.2	Adopt rules for fish-bearing streams sufficient to protect both water quality and fish habitat					
SONCC-PisR.19.3.40.3	Adopt rules to increase protection of non-fish-bearing streams that address practices that adversely impact water quality and fish habitat					
SONCC-PisR.19.3.40.4	Ensure management measures for landslide prone areas include protection of water quality and fisheries habitat					
SONCC-PisR.19.3.40.5	Until more permanent regulatory mechanisms can be put in place, immediately adopt interim rules that increase protection for salmon habitat in forested areas, including increased natural recruitment of large wood on perennial and intermittent streams likely to deliver wood downstream, increased shade on all perennials, and protective buffers on small intermittent streams.					
SONCC-PisR.2.2.6	Floodplain and Channel Structure	Yes	Reconnect the channel to the floodplain	Construct off channel habitats, alcoves, backwater habitat, and old stream oxbows	Lower mainstem, estuary, Crooks Creek, and all streams where coho salmon would benefit immediately	2b
SONCC-PisR.2.2.6.1	Identify potential sites to create refugia habitats. Prioritize sites and determine best means to create rearing habitat					
SONCC-PisR.2.2.6.2	Implement restoration projects that improve off channel habitats to create refugia habitat, as guided by assessment results					
SONCC-PisR.2.2.41	Floodplain and Channel Structure	Yes	Reconnect the channel to the floodplain	Construct off channel habitats, alcoves, backwater habitat, and old stream oxbows	Population wide	2c
SONCC-PisR.2.2.41.1	Identify potential sites to create refugia habitats. Prioritize sites and determine best means to create rearing habitat					
SONCC-PisR.2.2.41.2	Implement restoration projects that improve off channel habitats to create refugia habitat, as guided by assessment results					

Pistol River Population

Action ID	Target	KLS/T	Strategy	Action Description	Area	Priority
Step ID	Step Description					
SONCC-PisR.2.2.7	Floodplain and Channel Structure	Yes	Reconnect the channel to the floodplain	Increase beaver abundance	All streams where coho salmon would benefit immediately	2b
SONCC-PisR.2.2.7.1	Develop a beaver conservation plan that includes education and outreach, technical assistance for land owners, and methods for reintroduction and/or relocation of beaver as a last resort					
SONCC-PisR.2.2.7.2	Implement education and technical assistance programs for landowners, guided by the plan					
SONCC-PisR.2.2.7.3	Reintroduce or relocate beaver if appropriate, guided by the plan					
SONCC-PisR.2.2.42	Floodplain and Channel Structure	Yes	Reconnect the channel to the floodplain	Increase beaver abundance	Population wide	2c
SONCC-PisR.2.2.42.1	Develop a beaver conservation plan that includes education and outreach, technical assistance for land owners, and methods for reintroduction and/or relocation of beaver as a last resort					
SONCC-PisR.2.2.42.2	Implement education and technical assistance programs for landowners, guided by the plan					
SONCC-PisR.2.2.42.3	Reintroduce or relocate beaver if appropriate, guided by the plan					
SONCC-PisR.28.1.4	Roads	Yes	Reduce sediment delivery to streams	Reduce road-stream hydrologic connection	Population wide; prioritize upper South Fork Pistol River and Crook, Deep, Farmer, and Scott creeks	2b
SONCC-PisR.28.1.4.1	Assess and prioritize road-stream connection, and identify appropriate treatments					
SONCC-PisR.28.1.4.2	Decommission roads, guided by assessment					
SONCC-PisR.28.1.4.3	Upgrade roads, guided by assessment					
SONCC-PisR.28.1.4.4	Maintain roads, guided by assessment					
SONCC-PisR.12.1.26	Agricultural Practices	No	Improve agricultural practices	Improve regulatory mechanisms	Population wide	2b
SONCC-PisR.12.1.26.1	Determine the best way to revise the Agricultural Water Quality Management Act (AWQMAP) so that it does not limit recovery of SONCC coho salmon and recommend appropriate revisions					
SONCC-PisR.12.1.26.2	Ensure basin rules are specific and linked to implementing AWQMAP recommendations, including developing specific standards for riparian buffers					
SONCC-PisR.12.1.26.3	Ensure that AWQMA plans address both impaired areas and proactive prevention of water quality impairment					
SONCC-PisR.12.1.26.4	Adopt interim buffers equal to the buffer standards NMFS is recommending in Washington state until the state establishes its own buffers					
SONCC-PisR.12.1.26.5	Develop a process in the AWQMA Program that tracks and evaluates implementation					
SONCC-PisR.12.1.26.6	Change the complaint-based compliance monitoring process to a focused compliance program					

Pistol River Population

Action ID	Target	KLS/T	Strategy	Action Description	Area	Priority
Step ID	Step Description					
SONCC-PisR.7.1.22	Riparian	No	Improve wood recruitment, bank stability, shading, and food subsidies	Improve grazing practices	Private lands and all areas where coho salmon would benefit immediately	2b
SONCC-PisR.7.1.22.1	Assess grazing contribution to sediment delivery, pollutants, and impaired riparian conditions					
SONCC-PisR.7.1.22.2	If problems are identified, develop and implement grazing management strategy that decreases delivery of sediment and pollutants to streams and improves riparian condition					
SONCC-PisR.7.1.22.3	Monitor effectiveness of grazing management to ensure grazing does not limit recovery of SONCC coho salmon					
SONCC-PisR.7.1.45	Riparian	No	Improve wood recruitment, bank stability, shading, and food subsidies	Improve grazing practices	Population wide	2c
SONCC-PisR.7.1.45.1	Assess grazing contribution to sediment delivery, pollutants, and impaired riparian conditions					
SONCC-PisR.7.1.45.2	If problems are identified, develop and implement grazing management strategy that decreases delivery of sediment and pollutants to streams and improves riparian condition					
SONCC-PisR.7.1.45.3	Monitor effectiveness of grazing management to ensure grazing does not limit recovery of SONCC coho salmon					
SONCC-PisR.28.2.25	Roads	No	Reduce pollutants and stormflow	Increase regulatory oversight	Population wide	2b
SONCC-PisR.28.2.25.1	Strengthen city and county ordinances to minimize new impervious surfaces and require treatment to current standards					
SONCC-PisR.28.2.25.2	Strengthen city and county ordinances to require treatment to current standards when existing impervious surfaces are expanded, reconditioned, reconstructed or replaced					
SONCC-PisR.28.2.25.3	Develop local regulatory mechanisms that limits development and reduces amount of total impervious area through incentives					
SONCC-PisR.7.1.2	Riparian	Yes	Improve wood recruitment, bank stability, shading, and food subsidies	Improve long-range planning	Private land	2c
SONCC-PisR.7.1.2.1	Review General Plan or County Ordinances to ensure coho salmon habitat needs are accounted for. Revise if necessary					
SONCC-PisR.7.1.2.2	Develop watershed-specific guidance for managing riparian vegetation. Consider larger riparian buffers in coho occupied habitat					
SONCC-PisR.2.2.35	Floodplain and Channel Structure	No	Reconnect the channel to the floodplain	Improve regulatory mechanisms	Population wide	2c
SONCC-PisR.2.2.35.1	Improve protective regulations for beaver and develop guidelines for relocation that are practical for restoration groups					
SONCC-PisR.10.2.9	Water Quality	No	Reduce pollutants	Set standard	Population wide	2d
SONCC-PisR.10.2.9.1	Develop TMDLs for water bodies listed under Clean Water Act Section 303(d)					

Pistol River Population

Action ID	Target	KLS/T	Strategy	Action Description	Area	Priority
Step ID	Step Description					
SONCC-PisR.7.1.23	Riparian	No	Improve wood recruitment, bank stability, shading, and food subsidies	Improve grazing practices	Federal lands	3b
<i>SONCC-PisR.7.1.23.1</i>	<i>Monitor effects of livestock grazing on coho salmon habitat and adjust or discontinue grazing if effects of livestock grazing on salmon habitat are limiting coho recovery</i>					
SONCC-PisR.7.1.24	Riparian	No	Improve wood recruitment, bank stability, shading, and food subsidies	Increase regulatory oversight	County	3b
<i>SONCC-PisR.7.1.24.1</i> <i>SONCC-PisR.7.1.24.2</i>	<i>Strengthen city and county ordinances to limit development within the 100 year channel migration zone</i> <i>Strengthen city and county ordinances to limit development within the 50 year flood elevation</i>					
SONCC-PisR.7.1.1	Riparian	Yes	Improve wood recruitment, bank stability, shading, and food subsidies	Increase conifer riparian vegetation	Federal forest lands	3c
<i>SONCC-PisR.7.1.1.1</i> <i>SONCC-PisR.7.1.1.3</i>	<i>Develop an appropriate timber harvest management plan for benefits to coho salmon habitat</i> <i>Plant conifers, guided by the plan</i>					
SONCC-PisR.5.1.10	Passage	No	Improve access	Remove barriers	All streams where coho salmon would benefit immediately	3c
<i>SONCC-PisR.5.1.10.1</i>	<i>Use ODFW and SCWC fish passage barrier database to improve access based on known coho use or data identifying suitable habitat conditions above</i>					
SONCC-PisR.5.1.44	Passage	No	Improve access	Remove barriers	Population wide	3d
<i>SONCC-PisR.5.1.44.1</i>	<i>Use ODFW and SCWC fish passage barrier database to improve access based on known coho use or data identifying suitable habitat conditions above</i>					
SONCC-PisR.3.1.21	Hydrology	No	Improve flow timing or volume	Increase instream flows	All streams with ODFW water rights for fish and all streams where coho salmon would benefit immediately	3c
<i>SONCC-PisR.3.1.21.1</i>	<i>Secure adequate instream flows to fulfill ODFW water rights for fish</i>					
SONCC-PisR.3.1.43	Hydrology	No	Improve flow timing or volume	Increase instream flows	Population wide	3d
<i>SONCC-PisR.3.1.43.1</i>	<i>Secure adequate instream flows to fulfill ODFW water rights for fish</i>					

Pistol River Population

Action ID	Target	KLS/T	Strategy	Action Description	Area	Priority
Step ID	Step Description					
SONCC-PisR.10.2.19	Water Quality	No	Reduce pollutants	Reduce pesticides	All areas where coho salmon would benefit immediately	3c
SONCC-PisR.10.2.19.1	Develop a pesticide management plan					
SONCC-PisR.10.2.19.2	Implement pesticide management plan and technical assistance program					
SONCC-PisR.10.2.38	Water Quality	No	Reduce pollutants	Reduce pesticides	Population wide	3d
SONCC-PisR.10.2.38.1	Develop a pesticide management plan					
SONCC-PisR.10.2.38.2	Implement pesticide management plan and technical assistance program					
SONCC-PisR.10.7.37	Water Quality	No	Restore nutrients	Add marine-derived nutrients to streams	Population wide	3c
SONCC-PisR.10.7.37.1	Develop a plan to supply appropriate amounts of marine-derived nutrients to streams (e.g. carcass placement, pellet dispersal)					
SONCC-PisR.10.7.37.2	Supply marine-derived nutrients to streams guided by the plan					
SONCC-PisR.10.7.39	Water Quality	No	Restore nutrients	Add marine-derived nutrients to streams	Population wide	3d
SONCC-PisR.10.7.39.1	Develop a plan to supply appropriate amounts of marine-derived nutrients to streams (e.g. carcass placement, pellet dispersal)					
SONCC-PisR.10.7.39.2	Supply marine-derived nutrients to streams guided by the plan					
SONCC-PisR.3.1.12	Hydrology	No	Improve flow timing or volume	Educate stakeholders	Population wide	3d
SONCC-PisR.3.1.12.1	Develop an educational program about water conservation programs and instream leasing programs					
SONCC-PisR.10.2.8	Water Quality	No	Reduce pollutants	Educate stakeholders	Lower mainstem, estuary, and Crooks Creek	3d
SONCC-PisR.10.2.8.1	Develop an educational program that teaches landowners about avoiding pollution from septic systems, backyard pesticides, fuels, and nutrients					
SONCC-PisR.10.2.20	Water Quality	No	Reduce pollutants	Increase regulatory oversight	Population wide	3d
SONCC-PisR.10.2.20.1	Increase application of Low Impact Development (LID) techniques through education and incentives					
SONCC-PisR.10.2.20.2	Incorporate LID in Clean Water Act permits for projects that result in stormwater discharge					

Pistol River Population

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AD-1907 – Adams

Comments during Planning Commission

Re-Opened 7 day period.

Closed 8-1-19 @ 11:59pm

Penny Hudgens

From: Becky Crockett
Sent: Thursday, August 01, 2019 3:57 PM
To: Penny Hudgens
Subject: FW: AD-1907-- Pistol River--Adams

Becky Crockett
Planning Director
(541) 247-3228
crockettb@co.curry.or.us

From: Mark Nelson [<mailto:mark@nelsonbooks.biz>]
Sent: Sunday, July 28, 2019 3:54 PM
To: Becky Crockett
Subject: AD-1907-- Pistol River--Adams

Becky Crockett, Planning Director
94235 Moore Street
Gold Beach, OR 97444

July 28, 2019

Dear Ms. Crockett,

Regarding the additional information submitted by Mr. Adams on his proposal to remove rock from Pistol River, I understand that the scalping process is supposed by him to be less invasive to the wildlife of the river. However, the process is really not different at all from any other process when it comes to all the other concerns people have raised about this application. This includes traffic, impact on environment, wear and tear on infrastructure and a myriad of other concerns expressed so many times by so many individuals and organizations over these past months.

Additionally, Mr. Adams states "If you approve this application, you will be giving me the green light, you will simply be allowing me to take the first step." This is a false premise. It is not the job of the Planning Commission to "give the green light" so people can proceed up the line with an incomplete application, a fallacy also stated by Commissioner Dewald at the June 20, 2019 meeting, and one apparently adopted by the rest of the Commission. Rather, it is the Commission's job to review applications on their merit, to see if they meet the criteria to be "green-lighted". The Commission should be the first line of defense to ensure that applications of this gravity do not proceed without having all the information necessary. This did not happen. In fact, the opposite was stated several times by the commissioners themselves; that the application was shoddy, unprofessional, incomplete, and lacking several answers to questions concerning the impact on the river and on the community.

I reject the premise that the Planning Commission should move things along to see how far applicants can get without regard to whether the application contains all the elements of concern for the environment and the community at large.

Sincerely,

Mark L. Nelson
23896 Carpenterville Rd
Gold Beach, OR 97444

Penny Hudgens

From: Becky Crockett
Sent: Thursday, August 01, 2019 4:00 PM
To: Penny Hudgens
Subject: FW: Pistol River AD-1907

Becky Crockett
Planning Director
(541) 247-3228
crockett@co.curry.or.us

From: Mark Nelson [<mailto:mark@nelsonbooks.biz>]
Sent: Thursday, August 1, 2019 8:25 AM
To: Becky Crockett
Subject: Pistol River AD-1907

The following letter is from my neighbor, Nancy Zvan, whose written letter was returned as undeliverable, even though she had the proper address. She had left off the suite number, but did have "Attention: Becky Crockett" and her letter was returned. She does not have email. Please include the following in the record:

Becky Crockett, Planning Director
Re: Conditional Use Permit AD-1907

Ron Adams submitting he will use a "Scalping" mining method on the Pistol River to remove the build up of gravel bars, would only be a beginning to rock removal. This method would muddy the waters, making it difficult for fish/wildlife in the river to filter oxygen through their gills. ANY mining method must satisfy the many agencies that control the river. Ron Adams does not own the river.

Sincerely,

Nancy Zvan
23870 Carpenterville Rd.
Gold Beach, 97444

Sean T. Malone

Attorney at Law

259 E. Fifth Ave.,
Suite 200-C
Eugene, OR 97401

Tel. (303) 859-0403
Fax (650) 471-7366
seanmalone8@hotmail.com

August 1, 2019

Via email

Becky Crockett: crockettb@co.curry.or.us

Curry County Planning Commission
c/o County Planning Department
94235 Moore St.
Gold Beach, OR 97444
541-247-3228

RE: ORCA testimony on AD-1907, Conditional Use Application to Mine
for Gravel on the Pistol River

On behalf of Oregon Coast Alliance, please accept this responsive testimony on
AD-1907, a proposal to mine gravel on the Pistol River under a conditional use permit.

The applicant has submitted additional information and evidence, but it does little to remedy the overall failures of the application to “[p]lans and specifications submitted to the Commission for approval must contain sufficient information to allow the Commission to review and set siting standards related to” various criteria. CCZO 7.040(10). Those criteria include CCZO 7.040(10)(a)(1), which requires sufficient information on the “[i]mpact of the proposed use on surrounding land uses in terms of Department Environmental Quality standards for noise, dust, or other environmental factors”; CCZO 7.040(10)(a)(2), which requires sufficient information on the “impact of the proposed use on water quality, water flow, or fish habitat on affected rivers or streams”; CCZO 7.040(10)(a)(3), which requires information on “[t]he impact of the proposed use on overall land stability, vegetation, wildlife habitat, and land or soil erosion”; CCZO 7.040(10)(a)(4), which requires sufficient information regarding the adequacy of protection for people residing or working in the area from the proposed mining activity through fencing of the site”;

CCZO 7.040(10)(a)(5), which requires “rehabilitation of the land upon termination of the mining activity. The proposed rehabilitation must at least meet the requirements of state surface gravel mining or gravel removal permits;” CCZO 7.040(10)(a)(7)(i), which requires the consideration of whether the mining activity can be sited on an alternative site.

The applicant’s letter alleges that there is “a long term need for something happening to help the endangered fish survival,” but the problem is that the proposed use will adversely impact threatened and endangered species, as well as fish habitat.

It is clear from the applicant’s letter that the applicant has not considered any other alternative sites for the proposed use. Indeed, the applicant appears focused only on the subject properties when the applicant alleges that “[o]ver the last several years I have spent more than one million dollars acquiring these properties ..., so they can be restored.” Again, the problem is that there is no evidence to demonstrate that the restoration of the property will be any better than its current state, especially in light of the proposed gravel removal. For example, the applicant alleges that gravel removal “is a necessary action to improve the estuary and that issue will be addressed by The Army Corp. and DSL as we go forward.” The first problem, again, is that there is no demonstration that the proposed use is necessary to improve the estuary. Second, the applicant must submit evidence here, addressing the approval criteria. It is simply not enough to defer all approval criteria to the Army Corp and DSL approval because it completely ignores the approval criteria.

The applicant also alleges certain conclusions from the Army Corp’s placement of riprap across the river, but there is no expert testimony to support what the applicant alleges. There is nothing to demonstrate that without the applicant’s proposed use that “the bank protection the engineers put in place ... will cause the bank protection to be washed away.” There is also no information in the record to demonstrate that what the applicant proposes to remove is “new gravel,” and, even if that were the case, there is nothing in the record to demonstrate why “new gravel” is something that must be removed or remedied. The applicant is essentially admitting that it will scalp the gravel, leaving “a smooth area without holes.” This will release sediment into the Pistol River and remove necessary gravel for salmonid populations. As demonstrated in the attached *Gravel Disturbance Impacts on Salmon Habitat and Stream Health*, “[t]he gravel resources of streams and adjacent lands are part of the essential basic materials for salmon habitats. They provide a variety of natural functions, including substrate and habitat for the spawning and rearing of fish.” Page 11.

That report also notes that “[b]ar scalping offers an example of how human-induced changes may alter physical thresholds in streams. Bar scalping to remove gravel changes the effective size of the remaining surface particles and reduces the threshold

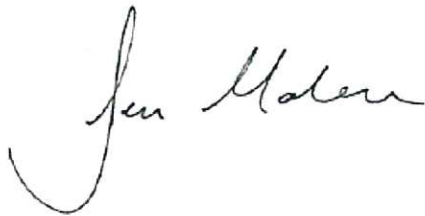
flows at which bar particles are disturbed and sediment transport will occur. An associated effect is that bar scalping lowers the overall elevation of the bar surface and can reduce the threshold water discharge at which sediment transport occurs. Page 26. The report also lists a host of impacts from bar scalping, none of which have even been remotely addressed by the applicant. *See* Page 27.

Moreover, there is no information on how the applicant proposes to scalp the bar. For example, how deeply will the bar be scalped, where specifically will the scalping occur, how would it effect channel morphology, groundwater, and so forth. There is simply not enough in the way of detail to provide the public or the County with any meaningful information to competently comment and mitigate the adverse impacts of what is proposed.

An additional issue is that the original application referred to two sites but the most recent submission from the applicant refers to only a single site. It is unclear if this is a change in the application. Are two sites proposed or one? Again, there is so little detail in the application that it is impossible to determine the impacts, mitigate the impacts, or otherwise gain an educated understanding of the proposed use.

For the foregoing reasons and those set forth in earlier testimony, the application must be denied.

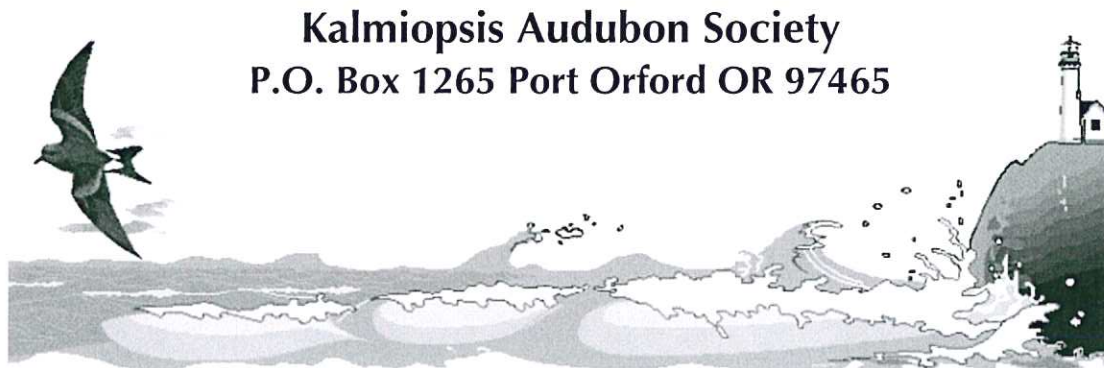
Sincerely,

A handwritten signature in black ink, appearing to read "Sean T. Malone". The signature is fluid and cursive, with a large initial "S" and "M".

Sean T. Malone

Attorney for Oregon Coast Alliance

Cc:
Client



Kalmiopsis Audubon Society
P.O. Box 1265 Port Orford OR 97465

Aug. 1, 2019

To: Curry County Planning Commission

Re: AD-1907, proposed conditional use for gravel extraction in Pistol River estuary

Dear Curry County Planning Commission members,

I am writing on behalf of the Kalmiopsis Audubon Society. Our group has 400 members in Curry County who are concerned about habitat for birds, fish, and wildlife and so we appreciate the opportunity to offer additional comments regarding Mr. Adams proposal for gravel extraction in the Pistol River estuary.

Again, we share and very much appreciate Mr. Adams interest in improving conditions in the Pistol River, but we are concerned that his plans are not sufficiently considered or developed in order to accomplish his stated aims and are not sufficient to inform the permitting process at the county level or at state and federal levels, as will be required owing to the location of the proposed extraction site in an estuary with important values for fisheries.

Since Mr. Adams stated in his recent letter to the Commission that he appreciated learning from previous testimony, and I hope Planning Commission members will too, I include here additional materials for the record to add to the substantive comments we submitted earlier.

I'd like to make 2 major points:

Bar scalping

Mr. Adams in his new statement has specified his intention to use "bar scalping" as his method of extraction. However, he still proposes no specific amount of gravel, which makes it impossible to assess the scale of operations he seeks to carry out at the Pistol River estuary site. It's also not entirely clear where specifically he intends to do this scalping.

In addition, "bar scalping," also known as bar skimming, is known to have impacts to river systems that create exactly the conditions that we see now in the Pistol River and that need to be restored.

According to the National Marine Fisheries Service "National Gravel Extraction Guidance" (2005):

"bar skimming creates a wide flat cross section, then eliminates confinement of the low flow channel, and results in a thin sheet of water at baseflow. Bar skimming can also remove the gravel "pavement," leaving the finer subsurface particles vulnerable to entrainment (erosion) at lower flows. A related effect is that bar skimming lowers the overall elevation of the bar surface and may reduce the threshold water discharge at which sediment transport occurs. Salmon redds (nests) downstream are thus susceptible to deposition of displaced, surplus alluvial material, resulting in egg suffocation or suppressed salmon fry emergence, while redds upstream of scalped bars are vulnerable to regressive erosion. Gravel bar skimming also appears to reduce the amount of side channel areas, which can result in the reduction and/or displacement of juvenile salmonid fishes that use this habitat."

For this reason, we think it would not be prudent to just do more of the same without more careful consideration.

River restoration

If Mr. Adams' intent is truly to restore the lower river, we strongly urge him to work with a professional restoration consultant to provide more assurance for the possibility of a positive outcome.

Please note that the 2006 guidance paper entitled "Sediment Removal from Active Stream Channels in Oregon: Considerations for Federal Agencies for Evaluation of Sediment Removal Actions from Oregon Streams," says restoration-based extraction needs to be approached cautiously and suggests some specific methods to use, including 1) a baseline geomorphological analysis of the site, 2) a limiting factors analysis, and 3) a current conditions and feasibility analysis.

Regarding restoration, that guidance (p. 59) states the following:

A restoration-based approach should be approached cautiously (NMFS 2005). The driving force in this type of project is restoring habitat, not obtaining aggregate; however, there are restoration activities that result in a net export of alluvial materials during construction. Projects that might fit into this category include restoring historical alcoves and side channels. The size, location, and morphology of these features should be dictated by a geomorphic assessment and not extraction quantity. Additionally, these channel features should be developed to be self-sustaining; hence, the excavation would occur only once. However, a well-planned restoration-based sediment removal project may significantly reduce or eliminate the need for compensatory mitigation.

Design considerations for this method include, but are not limited to:

- 1. Historic features. A geomorphic analysis of a site, which includes a thorough review of old photos, maps, and soil surveys, will help to define which geomorphic and habitat features are missing that once existed at the site.*
- 2. Limiting factors analysis. An inventory of species and habitat types for the area will help determine specific habitat needs for the area.*

3. *Current condition and feasibility. After the geomorphic analysis and habitat inventory have been completed, an analysis of the watershed condition and resultant hydrology and sediment load should be evaluated. Even if historic geomorphic features have been identified which correspond to a limiting habitat type, it may not be possible to restore such features in or along a stream channel due to increased or decreased sediment loads or significant changes in the hydrology (quantity, timing, and duration).*

None of these have been provided, and Mr. Adams has provided no indication that such analyses are part of his own planning for gravel extraction at this highly sensitive site for estuary health and fisheries.

Again, we very much appreciate Mr. Adams interest and intent to improving conditions in the lower Pistol River, and we strongly encourage him to work with a professional restoration consultant to achieve his stated aims.

However, until Mr. Adams provides an application with adequate information to demonstrate that his proposal to gravel extraction will not cause damage, we urge the Planning Commission to deny this permit.

I am submitting the two reports I refer to here for the record:

National Marine Fisheries Service, "National Gravel Extraction Guidance," 2005.

"Sediment Removal from Active Stream Channels in Oregon: Considerations for Federal Agencies for Evaluation of Sediment Removal Actions from Oregon Streams," 2006.

Thank you for considering our testimony.

Sincerely,



President, Kalmiopsis Audubon Society



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910
THE DIRECTOR

JUN 10 2005

MEMORANDUM FOR: Regional, Science, and Office Directors, NMFS

FROM:

W. T. Hogarth
for William T. Hogarth, Ph.D.

SUBJECT:

Final National Marine Fisheries Service (NMFS) National Gravel
Extraction Guidance

The 1996 NMFS National Gravel Extraction Policy has been revised and reissued as the NMFS National Gravel Extraction Guidance (Gravel Guidance). The revised Gravel Guidance includes updated information, recommendations and references that will provide meaningful assistance to NMFS staff involved in consultation activities where gravel mining in or near streams may affect anadromous fishes and their habitat. Revisions to the Gravel Guidance further support and strengthen NMFS's recommendation that gravel extraction operations should not interfere with anadromous fish migration, spawning, or rearing; or negatively impact viable historic or existing anadromous fish habitat. The Gravel Guidance is reissued as a guidance document, rather than a policy statement, to reflect that it is internal NMFS guidance that should be adapted to address Regional needs and local physical and biological settings.

The process to update the Gravel Guidance was a collaborative effort involving input from NMFS Regional and Science Center staff, other state and Federal agencies, the aggregate industry, and the public. I would like to thank Kerry Griffin and Katie McGlynn of the Office of Habitat Conservation, and Dave Packer of the Northeast Fishery Science Center for managing this collaborative effort and producing the improved version of the Gravel Guidance. I would also like to thank all NMFS staff who contributed their time and insight to make the Gravel Guidance a more useful tool to protect anadromous fish resources and their habitats.

Comments or questions on the Gravel Guidance should be directed to: Dave Packer (F/NEC23) at Dave.Packer@noaa.gov, (732) 872-3044; or to Katie McGlynn (F/HC2) at Katie.McGlynn@noaa.gov, (301) 713-4300.

Attachment



Printed on Recycled Paper

THE ASSISTANT ADMINISTRATOR
FOR FISHERIES



NATIONAL MARINE FISHERIES SERVICE NATIONAL GRAVEL EXTRACTION GUIDANCE

I. INTRODUCTION

The National Marine Fisheries Service (NMFS) is responsible for protecting, managing and conserving marine, estuarine, and anadromous fishes and their habitats. The watersheds of the United States provide essential spawning and rearing habitat for anadromous fishes including salmon, shad, sturgeon, and striped bass.

A national guidance document on gravel extraction is necessary because extraction in and near streams can cause many adverse impacts to anadromous fishes and their habitats. Potential impacts include: direct harm to trust species; loss or degradation of spawning, rearing, resting, and staging habitat; migration delays and/or blockages; channel widening, shallowing, or ponding; loss of channel stability; loss of pool/riffle structure; increased turbidity and sediment transport; increased bank erosion and/or stream bed downcutting; and loss or degradation of riparian habitat. The impacts can extend far beyond the mining site, and stream recovery can take decades.

In the context of Federal trust responsibilities, as defined in the collective body of Federal law and regulations, NMFS must ensure that federal actions, including authorizations to conduct gravel extraction operations, avoid, minimize, or mitigate to the greatest extent possible, any adverse impacts to anadromous fishes and their habitats. NMFS has been delegated the responsibility and authority under several Federal laws to address the effects of gravel extraction activities when the activities affect marine or anadromous fish under NMFS jurisdiction or their habitats. These authorities are summarized in Appendix I, and include the Endangered Species Act (ESA), Clean Water Act (CWA), National Environmental Policy Act (NEPA), Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), and the accompanying implementing regulations of each law.

This document revises and replaces NMFS' 1996 National Gravel Extraction Policy. The objectives of the NMFS Gravel Guidance are to (1) assist NMFS staff in determining whether proposed gravel extraction operations will be conducted in a manner consistent with Federal law, while (2) avoiding, minimizing, and mitigating any adverse impacts to anadromous fishes and their habitats. NMFS recommends that gravel extraction operations not interfere with anadromous fish migration, spawning, or rearing, or negatively impact viable existing or historic anadromous fish habitat. Further, it is recommended that individual gravel extraction operations be judged in the context of their spatial, temporal, and cumulative impacts, and that potential impacts to habitat be viewed from a watershed management perspective. Although this Guidance applies nationwide, it is not to be regarded as static or inflexible, as project recommendations must be made specific to individual sites, streams, and watersheds.

This Guidance does not specify the measures, if any, which would need to be implemented by parties engaged in gravel extraction activities in any given case to comply with applicable statutory requirements. In formulating its recommendations or prescriptions, NMFS will determine the acceptable means of demonstrating compliance with statutory requirements based

on information available to the agency, as appropriate under the circumstances presented. As such, the language of this Guidance for NMFS staff should not be read to establish any binding requirements on agency staff or the regulated community.

II. SCOPE OF GRAVEL GUIDANCE

This Guidance document addresses freshwater and tidal reaches of rivers and streams, tidal sloughs, and their associated wetlands and riparian zones where anadromous fish are currently or were historically present. Gravel extraction, as well as sand mining and dredging, also occurs in marine habitats such as the lower reaches of large tidal streams, estuaries and offshore. Marine extraction operations generally raise different concerns than those in streams. Although many elements of this Guidance are germane to all areas where gravel extraction occurs, the primary focus of this Guidance is extraction of gravel in streams rather than in marine environments.

The types of gravel extraction activities referred to in this Gravel Guidance generally entail commercial gravel mining (i.e., removing or obtaining a supply of gravel for industrial uses, such as road construction material, concrete aggregate, fill, and landscaping). Gravel can also be removed from stream channels for navigation and flood control purposes. Gravel extraction often occurs at multiple times and at multiple sites along a given stream, resulting in impacts that are likely to be both chronic and cumulative. When the rate of gravel extraction exceeds the rate of natural deposition over an extended time period, a net cumulative loss of gravel occurs (OWRRI [Oregon Water Resources Research Institute] 1995).

This Gravel Guidance document addresses three types of instream gravel mining, described as dry-pit and wet-pit mining in the active channel, and bar skimming (or “scalping”) (Kondolf 1993, 1994a, 1997, 1998a). Dry-pit refers to excavation on dry ephemeral stream beds and exposed bars with conventional bulldozers, scrapers, and loaders. Wet-pit mining involves the use of a dragline or hydraulic excavator to remove gravel from below the water table or in a perennial stream channel. Bar skimming or scalping removes the surface from gravel bars without excavating below the low water flow level.

In addition to the instream mining described above, this Guidance document also addresses another method, which involves the excavation of pits on the adjacent floodplain or river terraces (Kondolf 1993, 1994a, 1997, 1998a). Pits located above the water table are also known as dry-pits, while wet-pits are below, depending on the elevation of the floodplain or terrace relative to the baseflow water elevation of the channel. The isolation of these pits from an adjacent active channel may be only short-term. During a sudden change in channel course during a flood, or as part of gradual migration, the channel may shift into the gravel pits (Kondolf 1998a). Because floodplain pits can become integrated into the active channel, Kondolf (1993, 1994a) suggests that they should be regarded as part of the active channel if considered on a time scale of decades, and managed accordingly.

III. ENVIRONMENTAL EFFECTS OF GRAVEL EXTRACTION

Extraction of alluvial material from within or near a stream bed has a direct impact on the stream's physical habitat parameters such as channel geometry, bed elevation, substrate composition and stability, instream roughness elements (large woody debris, boulders, etc.), depth, velocity, turbidity, sediment transport, stream discharge, and temperature (Rundquist 1980; Pauley et al. 1989; Kanehl and Lyons 1992; Kondolf 1994a, b, 1997, 1998a; OWRRI 1995; Brown et al. 1998; Florsheim et al. 1998; Meador and Layher 1998; Langer 2001, 2003). OWRRI (1995) states that:

Channel hydraulics, sediment transport, and morphology are directly affected by human activities such as gravel mining and bank erosion control. The immediate and direct effects are to reshape the boundary, either by removing or adding materials. The subsequent effects are to alter the flow hydraulics when water levels rise and inundate the altered features. This can lead to shifts in flow patterns and patterns of sediment transport. Local effects also lead to upstream and downstream effects.

Altering these habitat parameters can have deleterious impacts on instream biota, food webs, and the associated riparian habitat (Sandecki 1989; Kanehl and Lyons 1992; Koski 1993; Spence et al. 1996; Brown et al. 1998). For example, impacts to anadromous fish populations due to gravel extraction can include: reduced fish populations in the disturbed area, replacement of one species by another, replacement of one age group by another, or a shift in the species and age distributions (Moulton 1980). Changes in physical habitat characteristics of aquatic systems can alter competitive interactions within and among species; similarly, changes in temperature or flow regimes may favor species that prey on anadromous fish populations (Spence et al. 1996). In general terms, Rivier and Segquier (1985) suggest that the detrimental effects to biota resulting from bed material mining are caused by two main processes: (1) alteration of the flow patterns resulting from modification of the river bed, and (2) an excess of suspended sediment. OWRRI (1995) adds:

Disturbance activities can disrupt the ecological continuum in many ways. Local channel changes can propagate upstream or downstream and can trigger lateral changes as well. Alterations of the riparian zone can allow changes in-channel [*sic*] conditions that can impact aquatic ecosystems as much as some in-channel activities.

One consequence of the interconnectedness of channels and riparian systems is that potential disruptions of the riparian zone must be evaluated when channel activities are being evaluated. For example, aggregate mining involves the channel and boundary but requires land access and material storage that could adversely affect riparian zones; bank protection works are likely to influence riparian systems beyond the immediate work area.

It should be emphasized that cobble and gravel substrates are in and of themselves extremely important habitat for anadromous fish including salmon, shad, striped bass, and sturgeon. Gravel habitat provides

protective crevices and well-oxygenated interstitial spaces that are important for anadromous fish egg hatching. Gravel habitat also contains rich assemblages of benthic nutrients used as food for developing fish larvae and provides macroinvertebrate food sources for post-larval juveniles.

The potential effects of gravel extraction activities on stream morphology, riparian habitat, and anadromous fishes and their habitats are summarized as follows:

- 1. Instream gravel mining can disrupt the preexisting balance between sediment supply and transporting capacity, and can result in channel incision and bed degradation** (Kondolf 1997, 1998a; Florsheim et al. 1998; Meador and Layher 1998; Langer 2001, 2003). This is partly because gravel “armors” the bed, stabilizing banks and bars, whereas removing this gravel causes erosion (Lagasse et al. 1980; OWRRI 1995; Kondolf 1997, 1998a). Degradation and erosion can extend upstream and downstream of an individual extraction operation, and can result from bed mining either in or above the low-water channel (Collins and Dunne 1990; Kanehl and Lyons 1992; Kondolf 1994a, 1994b, 1997, 1998a; OWRRI 1995; Pringle 1997; Brown et al. 1998). For example, headcutting (upstream erosion), increased velocities, concentrated flows, and bank undercutting with subsequent loss of riparian habitat can occur upstream of the extraction site due to a steepened river gradient (Kanehl and Lyons 1992; OWRRI 1995; Kondolf 1997; Pringle 1997), resulting in the release of additional sediment to downstream reaches, where the channel may aggrade and become unstable (Kondolf 1997). Accelerated delivery of sediment from upstream can falsely indicate recruitment in balance with removal. Degradation can deplete the entire depth of gravel on a channel bed, exposing other substrates that may underlie the gravel, reducing the amount and quality of usable anadromous spawning and rearing habitat (Collins and Dunne 1990; Kondolf 1994a, 1997, 1998a; OWRRI 1995). For example, gravel removal from bars may cause erosion if they subsequently receive less bed material from upstream than is being carried away by fluvial transport (Collins and Dunne 1990). Thus, gravel removal not only impacts the extraction site, but also may reduce gravel delivery to downstream spawning and rearing areas (Pauley et al. 1989; Brown et al. 1998). Gravel mining itself often selectively removes gravels of approximately the same sizes as needed by salmonids for spawning [median diameters of between 15-45 mm (Kondolf and Wolman 1993); see also Kondolf (2000)], again reducing the amount of usable spawning and rearing habitat.
- 2. Instream gravel extraction can increase suspended sediment, sediment transport, water turbidity, and gravel siltation** (Kanehl and Lyons 1992; OWRRI 1995; Kondolf 1997). The most significant change in the sediment size distribution resulting from gravel removal is a decrease in sediment size caused by fine material deposition into the mining site (Rundquist 1980). Brown et al. (1998) also note that the fine material can travel long distances downstream as a plume of turbidity while the gravel is being removed, and during floods, turbidity is likely to be higher than normal for even longer distances downstream due to the higher flow rate and increased entrainment of sediments as a result of channel deformation or armor layer removal. As reviewed by Everest et al. (1987), fine sediments in particular are detrimental to salmonid redds (nests) because (1) interstitial spaces blocked by deposited silt prevents oxygenated water from reaching the incubating eggs within the redd, and inhibits the removal of waste metabolites; (2) embryos or sac fry can be smothered by high concentrations of suspended sediments that enter the redd; and (3) emerging fry can become trapped if enough sediment is deposited on the redd (Koski 1966, 1981; Chapman 1988; Reiser and White 1988; Waters 1995). High silt loads may also inhibit larval, juvenile, and

adult behavior, migration, or spawning (Snyder 1959; Cordone and Kelly 1961; Koski 1975; Bisson and Bilby 1982; Berg and Northcote 1985; Bjornn and Reiser 1991; Kanehl and Lyons 1992; Servizi and Martens 1992; OWRRI 1995). Excessive amounts of suspended material can abrade the protective slime coatings on the surface of the fish and their gills, which can lead to increased bacterial and fungal infections (Cordone and Kelly 1961; Rivier and Segulier 1985). Increased suspended sediments may block vision and impede feeding (Sigler et al. 1984; Rivier and Segulier 1985). Siltation, substrate disturbances and increased turbidity also negatively affect the invertebrate food sources of fishes and severely alter the aquatic food web, thus affecting the growth and survival of the fish (Kanehl and Lyons 1992; OWRRI 1995; Spence et al. 1996; Brown et al. 1998).

3. **Bed degradation can change the morphology of the channel and decreases channel stability** (Moulton 1980; Rundquist 1980; Sullivan et al. 1987; Collins and Dunne 1990; Kanehl and Lyons 1992; Kondolf 1994a, b, 1997; OWRRI 1995; Brown et al. 1998; Florsheim et al. 1998). Gravel extraction can cause a diversion or a high potential for diversion of flow through the gravel removal site (Rundquist 1980). Mined reaches of a river or stream that show decreased depth and/or surface flow, which can occur where the flow is spread over a wide area and there is considerable intergravel flow, could block fish migration during periods of low flows (Moulton 1980). This could be caused by gravel bar skimming in particular (see Environmental Effect Number 4, below), and may compound problems in many areas where flows may already have been altered by hydropower operations, irrigation, or other human uses. Even if the gravel extraction activity is conducted away from the active river channel during low water periods (see Environmental Effect Number 8, below), substrate stability and channel morphology outside the excavated area's perimeter could be affected during subsequent high water events (Kondolf 1997, 1998a).
4. **Gravel bar skimming can significantly impact aquatic habitat.** Bar skimming creates a wide flat cross section, eliminating confinement of the low flow channel, which can then result in a thin sheet of water at baseflow (Kondolf 1994a, 1997). Sediment transport efficiency may be reduced through the unconfined reach due to the increased width to depth ratio, causing deposition and subsequent instability (Kondolf 1998a). Removal of the bar may alter channel hydraulics upstream as well as at the gravel extraction site (Kondolf 1998a). Bar skimming can also remove the gravel "pavement," leaving the finer subsurface particles vulnerable to entrainment (erosion) at lower flows (Kondolf 1994a, 1998a; OWRRI 1995). A related effect is that bar skimming lowers the overall elevation of the bar surface and may reduce the threshold water discharge at which sediment transport occurs (OWRRI 1995). Salmon redds downstream are thus susceptible to deposition of displaced alluvial material, resulting in egg suffocation or suppressed salmon fry emergence, while redds upstream of scalped bars are vulnerable to regressive erosion (Pauley et al. 1989). Gravel bar skimming also appears to reduce the amount of side channel areas, which can reduce and/or displace juvenile salmonid fishes that use this habitat (Pauley et al. 1989). All these effects can be particularly problematic if upstream flows are already reduced by diversions, dams, or other human activities.
5. **Operation of heavy equipment in the channel bed can directly destroy spawning habitat, rearing habitat, the juveniles themselves, and macroinvertebrates; can produce**

increased turbidity and suspended sediment downstream; and has the potential to cause toxic chemical spills (Forshage and Carter 1973; Kondolf 1994a). Heavy equipment usually crosses stream channels where the stream is shallowest, at riffles. Riffle habitat is important for juvenile salmonids (Bradford and Higgins 2001) because, for example, the juveniles often respond to disturbances by entering the interstitial spaces between the gravel substrate at riffles (Shrivell 1990; Meehan and Bjornn 1991). These pore spaces in the gravel substrate are important sources of cover or refuge (Raleigh et al. 1984). Therefore, juveniles in this riffle habitat could be susceptible to crushing from heavy equipment. Additional disturbances to redds may occur from increased foot and vehicle access to spawning sites, due to access created initially for gravel extraction purposes (OWRRI 1995). Also, heavy equipment is powered by diesel fuel and lubricated by other hazardous petroleum products, leading to the potential for toxic chemical spills.

- 6. Stockpiles of overburden and gravel left or abandoned in the channel or floodplain can alter channel hydraulics during high flows.** During high water, the presence of stockpiles can cause fish blockage or entrapment, and fine material and organic debris may be introduced into the water, resulting in downstream sedimentation (Follman 1980). The stockpiles may also concentrate flows on the stream bed or floodplain resulting in increased, localized erosion.
- 7. Removal or disturbance of instream roughness elements during gravel extraction activities can negatively affect both quality and quantity of anadromous fish habitat.** Instream roughness elements, including the gravel itself and large woody debris, play a major role in providing structural integrity and complexity to the stream or river ecosystem and provide habitat critical for anadromous fish (Koski 1992; Naiman et al. 1992; Franklin et al. 1995; Murphy 1995; OWRRI 1995; Abbe and Montgomery 1996; Collins and Montgomery 2002; Collins et al. 2002). These elements are important in controlling channel morphology and stream hydraulics; in regulating the storage of sediments, gravel and particulate organic matter; and in creating and maintaining habitat diversity and complexity (Franklin 1992; Koski 1992; Murphy 1995; OWRRI 1995). Large woody debris in streams creates pools and backwaters that fish use as foraging sites, critical overwintering areas, refuges from predation, and spawning and rearing habitat (Koski 1992; Maser and Sedell 1994; OWRRI 1995). Large wood jams at the head of gravel bars can anchor the bar and increase gravel recruitment behind the jam (OWRRI 1995). Loss of large woody debris from gravel bars can also negatively impact aquatic habitat (Weigand 1991; OWRRI 1995). The importance of large woody debris has been well documented, and its removal results in an immediate decline in salmonid abundance (e.g., see citations in Koski 1992; Franklin et al. 1995; Murphy 1995; OWRRI 1995). It is also important to remember that gravel deposits are themselves instream roughness elements, which is key to recognizing that the same type of effects apply (i.e., linking hydraulics and habitat is also applicable for gravel deposits underwater or on bars).
- 8. Dry pit and wet pit mining in floodplains may reduce groundwater elevations, reduce stream flows, increase water temperature, and create potential for fish entrapment** (Langer 2003; NMFS 2004). A reduction in groundwater elevation may occur when floodplain pits are pumped by operators to increase production, and by evaporation of

surface water in large pits. Reductions in groundwater elevations can consequently result in a decrease in stream flow, which is particularly hazardous to fish during low flow periods. Subsurface connectivity between pits and streams also presents a possibility of increased stream temperatures when pit surface water is heated by the sun and eventually drains to the stream. The risk of fish entrapment associated with floodplain pit mining is due to two processes: (1) floods overtopping the pit perimeter; and (2) natural migration of the channel into the excavated area (Kondolf 1998a). Ponded water isolated from the main channel may strand or entrap fish carried there during high water events (Moulton 1980; Palmisano 1993; Kondolf 1997). Fish in these ponded areas could experience higher temperatures, lower dissolved oxygen, increased predation compared to fish in the main channel, an altered food web, desiccation if the area dries out, and freezing (Moulton 1980; Spence et al. 1996; Kondolf 1997, 1998a).

The likelihood and extent of groundwater, stream flow, water temperature, and entrapment effects associated with floodplain mining are directly related to the pit's proximity to the active stream channel, pit size relative to the stream, and the frequency of flood inundation (Langer 2003; NMFS 2004).

9. **Destruction of the riparian zone during gravel extraction operations can have multiple deleterious effects on anadromous fish habitat.** The importance of riparian habitat to anadromous fishes (Koski 1993) should not be underestimated. For example, Koski (1992) states that a stream's capacity to produce salmonids is controlled by the structure and function of the riparian zone. The riparian zone includes stream banks, riparian vegetation, and vegetative cover. Damaging any one of these elements can cause stream bank destabilization resulting in increased erosion, sediment and nutrient inputs, and reduced shading and bank cover leading to increased stream temperatures. Destruction of riparian trees also means a decrease in the supply of large woody debris. This results in a loss of instream habitat diversity caused by removing the source of materials partially responsible for creating pools and riffles that are critical for anadromous fish growth and survival, as outlined in Environmental Effect Number 7, above (Koski 1992; Murphy 1995; OWRRI 1995).

Gravel extraction activities can damage the riparian zone in several ways:

- If the floodplain aquifer discharges into the stream, groundwater levels can be lowered because of channel degradation. Lowering the water table can kill riparian vegetation (Collins and Dunne 1990).
- Long-term loss of riparian vegetation can occur when gravel is removed to depths that result in permanent flooding or ponded water. Also, loss of vegetation occurs when gravel removal results in a significant shift of the river channel that subsequently causes annual or frequent flooding into the disturbed site (Joyce 1980).
- Heavy equipment, processing plants, and gravel stockpiles at or near the extraction site can destroy riparian vegetation (Joyce 1980; Kondolf 1994a; OWRRI 1995). Heavy equipment also causes soil compaction, thereby increasing erosion by reducing soil infiltration and causing overland flow. As mentioned in Environmental Effect Number 5 above, the use of heavy equipment also leads to the increased risk of chemical pollution; hazardous chemicals may also be used in nearby sediment processing plants. In addition,

roads, road building, road dirt and dust, and temporary bridges can also impact the riparian zone.

- Removal of large woody debris from the riparian zone during gravel extraction activities negatively affects the plant community (Weigand 1991; OWRRI 1995). Large woody debris is important in protecting and enhancing recovering vegetation in streamside areas (Franklin et al. 1995; OWRRI 1995).
- Rapid bed degradation may induce bank collapse and erosion by undercutting and by increasing the heights of banks (Collins and Dunne 1990; Kondolf 1994a, 1997).
- Portions of incised or undercut banks may be removed during gravel extraction, resulting in reduced vegetative bank cover, causing reduced shading and increased water temperatures (Moulton 1980).
- Banks may be scraped to remove “overburden” to reach the gravel below. This may result in destabilized banks and increased sediment inputs (Moulton 1980).
- The reduction in size or height of bars can cause adjacent banks to erode more rapidly or to stabilize, depending on how much gravel is removed, the distribution of removal, and on the geometry of the particular bed (Collins and Dunne 1990).

10. Gravel mining can cause a change in disturbance regimes and patterns with a concomitant change in habitat and species (Castro and Cluer, unpublished report). Stream and river systems are disturbance driven, which can temporarily or permanently alter the character of the system. These disturbances include natural variations in flow regimes and floods events, sediment delivery to the system, large inputs of organic materials, changes in base level, etc. Disturbances can be described by their frequency (e.g., the 100-year flood), duration (length of time), magnitude (areal extent), intensity (force exerted), and severity (the biological response) (OWRRI 1995). The bed within the active stream channel experiences the greatest disturbance frequency, which could be as often as every year (i.e., sediment transport events). The side channel and backwater areas are not as frequently disturbed, but are affected by higher flow events and channel avulsions (perhaps 5 to 10-year flows). Floodplains are disturbed even less frequently than the main and side channels; it may take a major flood event on the order of a decade or longer before the floodplain shows significant alteration. Finally, terraces and hillslopes have the lowest disturbance frequency (e.g., slope failures and mass movements).

Common to all of these disturbances is that the episode of disturbance is followed by a period of recovery (OWRRI 1995). If the disturbance events become so frequent that the system cannot fully recover before the next event, then the system is held in a constant state of disequilibrium or instability (Castro and Cluer, unpublished report). Organisms in these habitats show different responses to these disturbances, depending on such factors as their differences in developmental times, behavior, and their responses to environmental factors (OWRRI 1995). Pringle (1997) contends that anthropogenic activities downstream, including urbanization, dams, gravel mining, etc., can cause effects on organisms upstream, such as genetic isolation, population-level changes, and ecosystem-level changes. Alteration of a punctuated disturbance regime (as described above) to one of chronic disturbance overlain with larger infrequent disturbances often results in a shift of the plant and animal communities to ones that are more adapted to constant disturbance (OWRRI 1995). Incised streams and rivers may be subject to chronic disturbance because of the disconnection of the

floodplain. Instream gravel mining may cause chronic disturbance with a concomitant change in the habitat and associated species. Although sediment transport events may occur annually, and may be compared to gravel mining activities, the latter are temporally distinct from natural events. As OWRRI (1995) affirms about salmonids:

Over the last six million years salmonids have evolved within the natural disturbance regime. Novel disturbances can shift the ecological rules governing community structure making the recovery of the original biota impossible.

IV. RECOMMENDATIONS

The following recommendations do not specify the measures, if any, that would need to be implemented by parties engaged in gravel extraction activities in order to comply with applicable statutory requirements. In formulating its recommendations or prescriptions, NMFS will determine the acceptable means of demonstrating compliance with statutory requirements based on information available to the agency, as appropriate under the circumstances presented. As such, the language of this Guidance should not be read to establish any binding requirements on agency staff or the regulated community. The recommendations should not be regarded as static or inflexible, and are meant to be revised as the science upon which they are based improves and areas of uncertainty are resolved. Furthermore, the recommendations are meant to be modified for regional or local use, so a degree of flexibility in their interpretation and application is essential.

In general terms, gravel extraction operations located in or immediately adjacent to streams have greater impacts to anadromous fish resources and habitats than operations located further away from the stream. **Therefore, NMFS recommends that all reasonable efforts be made to identify gravel sources in upland areas and terraces before deciding to site project operations in or near streams.** This is commensurate with the CWA section 404 rationale of *avoiding* impacts, *minimizing* (when not reasonably possible to avoid), and then *mitigating* (when not reasonably possible to minimize).

If, after a thorough alternatives analysis, instream, floodplain, or terrace mining is going to proceed, NMFS recommends that project operations be carefully designed to minimize impacts to trust resources, including habitat. If the recommendations outlined in this Guidance are followed, such that (1) anadromous fishes and their habitats are protected; and, (2) appropriate and timely restoration is implemented to mitigate unavoidable impacts, gravel mining can, as suggested by Langer (2003), take place within acceptable limits. Many factors must be considered when designing a gravel mining project that conforms to environmental constraints. The recommendations below present only a general list of these considerations. Each project should be considered in its own context, based on project design, stream type and condition, natural resources, and cumulative impacts. NMFS Regional Offices are encouraged to adopt more detailed guidelines tailored to specific physical settings and biological needs.

1. **NMFS recommends that upland aggregate sources, terraces and inactive floodplains be used preferentially to active channels, their deltas and floodplains.** It is recommended that gravel extraction sites be situated outside the active floodplain and that the gravel is not

excavated from below the water table. In other words, dry-pit mining on upland outcrops, terraces or the floodplain is preferable to any of the instream alternatives. Bar skimming is generally preferable to wet-pit mining (deep water dredging) within the active channels if no upland or floodplain sources are reasonably available (see Recommendation Number 6, below). In addition, it is recommended that operators not divert streams to create an inactive channel for gravel extraction purposes, and avoid the formation of isolated ponded areas that cause fish entrapment. In all cases, it is recommended that efforts be made to minimize the need for crossing active channels with heavy equipment.

2. **NMFS recommends that pit excavations located on the adjacent floodplain or terraces should be preferentially sited outside the channel migration zone, and as far from the stream as possible. NMFS recommends that pits be separated from the active channel by a buffer designed to maintain this separation for several decades.** As previously discussed in Section II, the effects of floodplain mining are related to the subsurface hydrological connections between pits and streams, as well as the potential for active channel migration into the floodplain pits ('pit capture'). Therefore, as noted by Kondolf (1993, 1994a), NMFS recommends that pits be considered as potentially instream when viewed on a time scale of decades. Consequently, it is recommended that floodplain pits be located outside the channel migration zone and as far from the stream as possible. This is particularly important given that the likelihood and extent of adverse effects associated with floodplain mining is directly related to the pit's proximity to the active channel (Langer 2003; NMFS 2004). It is recommended that buffers or levees that separate the pits from the active channel be sufficient to accommodate long-term channel migration, infrequent flooding or inundation, and to avoid fish entrapment. Kondolf (1997) reminds us that:

A river channel and floodplain are dynamic features that constitute a single hydrologic and geomorphic unit characterized by frequent transfers of water and sediment between the two components. The failure to appreciate the integral connection between floodplain and channel underlies many environmental problems in river management today.

Generally, the physical setback of the pit from the channel should be based on several channel widths, or on the meander belt. Pit size should also be considered in determining appropriate buffers. Larger pits have the capacity to absorb a much greater volume of sediment than smaller pits, upon pit capture.

3. **NMFS recommends that larger rivers and streams be used preferentially to small rivers and streams.** Larger systems generally have more gravel and a wider floodplain, and a proportionally smaller disturbance in large systems will reduce the overall impact of gravel extraction (Follman 1980). On a smaller river or stream, the location of the extraction site is more critical because of the limited availability of exposed gravel deposits and the relatively narrower floodplain (Follman 1980). In either case, NMFS recommends that the extraction volume relative to coarse sediment load be low.
4. **NMFS recommends that braided river systems be used preferentially to other river systems.** The river systems, listed in the order of increasing sensitivity to physical changes

caused by gravel extraction activities, are: braided, split, meandering, sinuous, and straight (Rundquist 1980). Because braided river systems are dynamic and channel shifting may be a frequent occurrence, channel shifting resulting from gravel extraction might have less of an overall impact because it is analogous to a naturally occurring process (Follman 1980). However, gravel extraction from braided streams is still considered instream extraction, and NMFS recommends that it be avoided.

5. **NMFS recommends that instream gravel removal quantities be strictly limited so that gravel recruitment and accumulation rates are sufficient to avoid prolonged impacts on channel morphology and anadromous fish habitat.** While this is conceptually simple, annual gravel recruitment to a particular site is, in fact, highly variable and not well understood. Recruitment is the rate at which bedload is supplied from upstream to replace the extracted material. Kondolf (1993, 1994b) dismisses the common belief that instream gravel extraction can be conducted safely so long as the rate of extraction does not exceed the rate of replenishment. Kondolf (1993, 1994b) states that this approach to managing instream gravel extraction is flawed because it fails to account for the upstream/downstream erosional effects that change the channel morphology as soon as gravel extraction begins. In addition, Kondolf (1993, 1994b, 1997) reiterates that flow and sediment transport for most rivers and streams is highly variable from year-to-year, thus an annual average rate may be meaningless. An “annual average deposition rate” could bear little relation to the sediment transport regimes in a river in any given year. Moreover, sediment transport processes are very difficult to measure and to model, so estimates of bedload transport may prove unreliable (Kondolf 1997). These problems and uncertainties indicate a need for cautious interpretation of sediment yield results, and the conservative application of volume limitations on extraction projects. Any gravel removal in streams or rivers that have a recent history of eroding bars or banks and/or stream bed lowering is not recommended.

Collins and Dunne (1990) recommend that appropriate rates and locations for instream gravel extraction should be determined on the basis of:

- the rate of upstream recruitment;
- whether the river bed elevation under undisturbed conditions remains the same over the course of decades, or the rate at which it is aggrading or degrading;
- historic patterns of sediment transport, bar growth, and bank erosion;
- prediction of the specific, local effects of gravel extraction on bed elevations, and the stability of banks and bars, taking into account an analysis of present or past effects of gravel extraction at various rates; and
- a determination of the desirability or acceptability of the anticipated effects.

In addition, it is recommended that the habitat values of remaining (or newly recruited) sediments be functionally adequate or equivalent for the purposes of migration, spawning, rearing, benthic invertebrate production, and any other identified habitat needs. Upstream recruitment is ineffective if the necessary ecological functions are not replaced or restored.

6. **NMFS recommends that gravel bar skimming be allowed only under restricted conditions.** (See Section III, Environmental Effect Number 4, for the environmental impacts of gravel bar skimming.) Therefore, NMFS recommends that:

- gravel be removed only during low flows and from strictly-defined areas above the low-flow water level;
- berms and buffer strips be used to direct stream flow away from the site and to provide for continued migratory habitat;
- the final grading of the gravel bar not significantly alter the flow characteristics of the river during periods of high flows (OWRRI 1995);
- bar skimming operations be monitored to ensure they are not adversely affecting gravel recruitment or channel morphology either upstream or downstream from the site;
- geomorphic features be monitored using methods that quantify their physical dimensions and changes at appropriate time scales. This will likely include densely spaced cross-sections to cover the geomorphic features, topographic mapping techniques that do not rely solely on cross-sections but follow terrain features, and modern mapping techniques that grid entire areas with closely spaced data; and
- any gravel removal in streams or rivers that have a recent history of eroding bars or banks, or stream bed lowering, be discouraged.

7. **NMFS recommends that prior to gravel removal, a thorough review of sediments and point and non-point sources of contaminants be conducted.** Toxic compounds from a variety of sources (municipalities, manufacturing plants, hardrock mines, etc.) may be present in sediments, and can be released into the stream when disturbed during gravel extraction operations. It is recommended that sediment testing be conducted to detect metals and organic compounds (DDT, PCBs, etc.), and residual acid or heavy metal drainage from hardrock mining operations; and that during project operations, extracted gravel, sand, and sediments not be washed directly in the stream or river or within the riparian zone.

In addition, it is recommended that an assessment of contaminant sources be completed to assist in determining potential problems with contaminated sediments. Sources can include farming, mining, National Pollutant Discharge Elimination System (NPDES)-permitted activities, forestry, sewage treatment plants, and other municipal infrastructure.

To minimize the suspension of sediments, it is recommended that measures be taken to contain turbidity plumes, and to avoid excessive disturbance of sediments. It is also recommended that turbidity levels do not exceed maximum allowable turbidity limits for anadromous fish and their prey.

8. **NMFS recommends that removal or disturbance of instream roughness elements during gravel extraction activities be avoided, and that those that are disturbed be replaced or restored.** As previously stated in Section III, Environmental Effect Number 7, instream roughness elements, particularly large woody debris, are critical to stream and river ecosystem functioning. This may be particularly true in small streams where large woody debris plays a relatively greater role in channel morphology and sediment dynamics than in larger streams or rivers. In addition, it is recommended that gravel itself be considered an instream roughness element, and that consideration be given to leaving similar-sized gravel in the stream bed, in addition to replacing large woody debris.

9. **NMFS recommends that gravel extraction operations be managed to avoid or minimize damage to stream/river banks and riparian habitats.** Therefore, NMFS recommends that:
- gravel extraction in vegetated (or those that would be vegetated without repeated anthropogenic disturbances) and riparian areas be avoided;
 - gravel pits located on the adjacent floodplain not be excavated below the water table;
 - berms and buffer strips in the floodplain that keep active channels in their original locations or configurations be maintained for several decades (as in Recommendation Number 2, above);
 - undercut and incised vegetated banks not be altered;
 - large woody debris in the riparian zone be left undisturbed or replaced when moved;
 - all support and processing operations (e.g., gravel washing) be done outside the riparian zone;
 - gravel stockpiles, overburden and/or vegetative debris not be stored within the riparian zone, and they be disposed of properly after extraction;
 - operation and storage of heavy equipment within riparian habitat be restricted.
 - access roads not encroach into the riparian zones; and
 - riparian zone protection extend well upstream and downstream from the project site when possible because the erosional effects of instream gravel mining can be manifested miles upstream and downstream from the site of operations.
10. **NMFS recommends that the cumulative impacts of gravel extraction operations to anadromous fishes and their habitats be addressed by the Federal, state, and local resource management and permitting agencies and be considered in the permitting process.** The cumulative impacts on anadromous fish habitat caused by multiple extractions and sites in a given stream, river, or watershed are compounded by other riverine impacts and land use disturbances in the watershed. These additional impacts may be caused by river diversions/impoundments, flood control projects, logging, grazing, and channel/riparian encroachment. The technical methods for assessing, managing, and monitoring cumulative effects are a future need outside the scope of this Gravel Guidance document. Nevertheless, it is recommended that individual gravel extraction operations be judged from a perspective that includes their potential adverse cumulative impacts (Kondolf 1997, 1998a; see also Council on Environmental Quality, Office of Federal Activities 1997 and U.S. EPA 1999 for general cumulative impact guidance). It is recommended that this be reflected in any gravel extraction management plan. NMFS will promote the same watershed approach to cumulative impact analysis when reviewing non-mining activities in or near the aquatic environment.
11. **NMFS recommends that an integrated environmental assessment, management, and monitoring program be a part of any gravel extraction operation, and encouraged at Federal, state, and local levels.** Assessment is used to predict possible environmental impacts. Management is used to implement plans to prevent, minimize, and mitigate negative impacts. Monitoring is used to determine if the assessments were correct, to detect environmental changes, and to support management decisions.

Before gravel mining operations commence it is recommended that operators submit plans to

the appropriate Federal, State and local agencies outlining their proposed project, including, but not limited to location, methods, timing, duration, proposed extraction volumes, and post-mining landscape morphology. Prior to extraction, it is important to establish existing biological and physical conditions, evaluate possible environmental impacts, and describe ways in which adverse environmental impacts are to be prevented or minimized, with the goal of achieving and maintaining the natural ecological functions of the habitat. Using a combination of best available technologies and methods, it is recommended that the following be assessed:

- Characterize and identify fish species distributions, abundances, and life stages.
- Identify habitat requirements and determine limiting environmental factors of the anadromous fish populations. In addition to the limiting factors identified by Koski (1992), it is recommended that this analysis evaluate the proposed timing of extraction operations relative to adult and juvenile migration patterns and choose in-water work windows accordingly.
- Develop a flow frequency curve.
- Calculate sediment budgets, taking into consideration such periodic natural events as floods (Meador and Layher 1998).
- Predict possible changes in water quality, channel morphology, and potential adverse cumulative impacts.
- Propose a mitigation and restoration strategy based on preventing impacts, minimizing unavoidable impacts, and mitigating for all immediate and cumulative impacts (see Recommendation Number 12, below).

NMFS recommends that the operators also check with their NMFS Regional Offices for any regionally specific procedures and guidelines.

While gravel mining operations are ongoing, it is important to monitor permitted operations and verify environmental safeguards. At a minimum, it is recommended that the following attributes be monitored on a regular basis:

- extraction rates and volumes;
- impacts to the river bed, banks, and bars be documented adjacent to, upstream, and downstream of the project using benchmarked channel cross-sections, Digital Elevation Models, and aerial photographs;
- species distributions and abundances;
- water quality including turbidity, dissolved oxygen, and contaminants; and
- effectiveness of mitigation activities.

NMFS recommends that permits have a maximum 5 year limit and be subject to annual review and revision to protect anadromous fish and their habitats (e.g., it is recommended that one element of the annual review determine whether resource management and monitoring objectives are being met). NMFS recommends that a third party be responsible for carrying out monitoring activities and reporting these results to the permitting agency, the operator, the appropriate natural resource agencies, and other stakeholders.

12. NMFS recommends that mitigation be an integral part of the management of gravel

extraction projects. It is important that mitigation be based on replacing equivalent habitat values and functions, as per the U.S. Army Corps of Engineers (USACE) Regulatory Guidance Letter No. 02-2 (2002) on compensatory mitigation. It is recommended that a mitigation strategy be included in the management program of each project, and where possible, mitigation activities be initiated concurrently with the gravel mining operations. NMFS recommends that a mechanism for correcting problems identified via monitoring be written into the permit, as monitoring is not worthwhile unless there is a mechanism to address problems that are identified as a result of the monitoring program. In terms of National Environmental Policy Act (NEPA) regulations, mitigation includes, in sequential order:

- avoidance of direct or indirect impacts or losses;
- minimization of the extent or magnitude of the action;
- repair, rehabilitation or restoration of integrity and function;
- reduction or elimination of impacts by preservation and maintenance; and
- compensation by replacement or substitution of the resource or environment.

Thus, restoration follows avoidance and minimization. The preceding definitions recommend that restoration aim to restore the biotic integrity of a riverine ecosystem, not just repair the damaged abiotic components. An overview of river and stream restoration can be found in Gore et al. (1995). A universal, prototype long-term monitoring strategy for watershed and stream restoration can be found in Bryant (1995); see also the various papers by Kondolf and others (e.g., Kondolf and Larson 1995; Kondolf and Micheli 1995; Kondolf 1998b). In addition, see Beechie and Bolton (1999), who discuss approaches to restoring salmonid habitat-forming processes in Pacific Northwest watersheds, and Roni et al. (2002), who review stream restoration techniques and present a hierarchical strategy for prioritizing restoration in these watersheds.

Koski (1992) states that the concept of stream habitat restoration as applied to anadromous fishes is based on the premise that fish production increases when those environmental factors that limit production are alleviated. Thus, an analysis of those “limiting factors” is critical to the restoration process. Koski (1992) further states that effective stream habitat restoration must be holistic in scope, and approached through a three-step process:

1. First, a program of watershed management and restoration must be applied to the watershed to ensure that all major environmental impacts affecting the entire stream ecosystem are addressed (i.e., cumulative impacts). Obviously, an individual gravel extraction project is not expected to restore an entire watershed suffering from cumulative effects for which it was not responsible. Rather, needed mitigation and restoration activities in a riverine system should focus on direct and indirect project effects and must be designed within the context of overall watershed management.
2. Next, restore the physical structure of the channel, instream habitats, and riparian zones (e.g., stabilize stream banks through replanting of riparian vegetation, conserve spawning gravel, and replace large woody debris). This would reestablish the ecological carrying capacity of the habitat.

3. Finally, the fish themselves should be managed to ensure that there are sufficient spawning populations for maximizing the restored carrying capacity of the habitat.

Without restoration, stream recovery from gravel mining can take decades (Kanehl and Lyons 1992). However, NMFS recommends that reliance on restoration be put into proper perspective. It is important to acknowledge that there are significant gaps in our understanding of the methodology and effectiveness of restoration of streams and anadromous fish habitat affected by gravel extraction activities. Overall, restoration as a science is relatively young and experimental, and the processes and mechanisms are poorly understood. Little is known about the functional value, stability and resiliency of many so-called “restored” habitats. To date, existing regulations or plans pertaining to the mitigation and restoration of gravel extraction sites have been simplistic or vague, and because restoration science and planning is still rudimentary, NMFS recommends that each project first begin its mitigation analysis with avoidance and minimization.

As an example, gravel extraction in California is regulated under the concept of “reclamation,” which is derived from open-pit surface mining, such as large coal mines. Although the definition and implementation of reclamation may vary among states, Kondolf (1993, 1994b) states the concept of reclamation, as applied to open-pit mines, often assumes that the environmental impacts are confined to the site; therefore, site treatment is considered in isolation from changes in the surrounding terrain. Kondolf (1993, 1994b) suggests that this definition treats the site as an essentially static feature of the landscape. He argues that, while these assumptions may work for extraction operations located in inactive stream or river terraces, active channels and floodplains are dynamic environments, where disturbances can spread rapidly upstream and downstream from the site during and after the time of operation. The stream or river will irrevocably readjust its profile during subsequent high flows, eradicating the gravel pits and giving the illusion that extraction has had no impact on the channel. Kondolf (1993, 1994b) claims that a survey of bed elevations will show a net lowering of the bed, which reflects the more even distribution of downcutting (erosion) along the length of the channel. Even if the channel profile were to recover after project completion due to an influx of fresh sediment from upstream, habitat will have been lost in the meantime. Thus, it is not possible to disturb one site in isolation from the rest of the ecosystem, or confine the disturbance to a single, detached location, and then subsequently reclaim or reverse the impacts (Brown et al. 1998). Kondolf (1993, 1994b) concludes that reclamation can be applied to gravel pits in terrace deposits above the water table, but the reclamation concept is not workable for regulating instream gravel extraction. Similarly, in regards to instream gravel mining, Brown et al. (1998) conclude that, “total restoration of severely affected streams would probably be impossible.”

Moreover, Kondolf (1998a) reminds us that:

The effects of instream gravel mining may not be obvious immediately because active sediment transport is required for the effects (e.g. incision, instability) to propagate upstream and downstream. Given that geomorphically-effective sediment transport events are infrequent on many rivers, there may be a lag of several or many years before the effects of instream gravel mining are evident and

propagate along the channel. Thus, gravel mines may operate for years without apparent effects upstream or downstream, only to have the geomorphic effects manifest years later during high flows. Similarly, rivers are often said to have ‘long memories’, meaning that the channel adjustments to instream extraction or comparable perturbations may persist long after the activity itself has ceased.

This delayed manifestation of geomorphic effects leads to the false assumption that floods cause damage to stream systems, when in actuality anthropogenic changes often “set the stage” for geomorphic change. Large flood events simply provide the necessary stream power for the changes to occur.

For further guidance on mitigation, refer to the USACE Regulatory Guidance Letter (USACE 2002) noted above and the joint guidance on the Use of In-Lieu-Fee Arrangements for Compensatory Mitigation Under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act (65FR 66913, November 7, 2000).

- 13. NMFS recommends that gravel extraction projects proposed as stream restoration activities be regarded with caution.** Resource management agencies acknowledge that, under the right circumstances, some gravel extraction projects, whether commercial or performed by the agencies themselves, may offer important opportunities for anadromous fish habitat enhancement. That is, gravel removal itself can be used beneficially as a tool for habitat creation, restoration, or rehabilitation (OWRRI 1995). While it is tempting to promote gravel extraction as a means to enhance or restore stream habitat, the underlying objective of this Guidance document is to prevent adverse impacts caused by commercial gravel extraction operations. Therefore, NMFS recommends that gravel extraction for habitat enhancement purposes, done in conjunction with commercial gravel operations, not take precedence over, and not be a substitute for, habitat protection. It is recommended that any proposals to perform gravel extraction for habitat enhancement purposes be done in consultation with NMFS regional field offices and technical experts.

NMFS recommends that either a mitigation fund, with contributions paid by the operators or royalties from gravel extraction be used to fund mitigation programs as well as for effectiveness monitoring. A possible use of mitigation funds and royalties could include conducting studies to further the knowledge of extraction impacts in a given watershed. Such studies might include: a review of historical impacts; identification of alternative aggregate sources; a watershed-based evaluation of mitigation alternatives; identification of sites where it is recommended that extraction activities be avoided; and recommended removal thresholds.

In light of the dynamic, unpredictable, and episodic nature of stream hydrology and sediment transport, NMFS cautions against relying too heavily on restoration, and agrees with both Murphy (1995) and Langer (2001) that the best form of habitat mitigation is to avoid or minimize adverse impacts to the environment.

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APPENDIX 1

SUMMARIES OF MAJOR STATUTES

The following summaries of the major statutes mentioned in this Gravel Guidance document, with the exception of the Rivers and Harbors Act of 1899, were based on Buck (1995)¹.

Clean Water Act

The Clean Water Act (CWA) (33 *U.S.C.* 1251-1387) is a very broad statute with the goal of maintaining and restoring waters of the United States. The CWA authorizes water quality and pollution research, provides grants for sewage treatment facilities, sets pollution discharge and water quality standards, addresses oil and hazardous substances liability, and establishes permit programs for water quality, point source pollutant discharges, ocean pollution discharges, and dredging or filling of wetlands. The intent of the CWA Section 404 program and its 404(b)(1) Guidelines is to prevent destruction of aquatic ecosystems including wetlands, unless the action will not individually or cumulatively adversely affect the ecosystem. The National Marine Fisheries Service (NMFS) can provide comments to the U.S. Army Corps of Engineers (USACE) as to the impacts to living marine resources of proposed activities and can recommend methods for avoiding such impacts.

If NMFS determines that a proposed action will result in “substantial and unacceptable adverse impacts on aquatic resources of national importance,” the Assistant Secretary for Oceans and Atmosphere may request that the decision be reviewed at a higher level in the USACE. A 404(q) elevation pauses the permit process for about two months while the two departments exchange information to address concerns about the proposed project. While outright permit denials are rare, there are often modifications to the project proposal resulting in a less harmful action.

Endangered Species Act

The purpose of the 1973 Endangered Species Act (ESA) (16 *U.S.C.* 1531-1543) is to provide a means whereby the ecosystems upon which endangered or threatened species depend may be conserved, and to provide a program for the conservation of such endangered and threatened species. If a Federal action may affect ESA-listed species or their critical habitat, the action agency must initiate consultation with NMFS under section 7 of the ESA. Other pertinent sections of the ESA include section 9 (direct take) and section 10 (all Federal departments and agencies shall seek to conserve endangered and threatened species and shall utilize their authorities in furtherance of the purposes of the ESA).

¹Buck, E.H. 1995. Summaries of major laws implemented by the National Marine Fisheries Service. CRS Report for Congress. Congressional Research Service, Library of Congress, March 24, 1995.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA) (16 U.S.C. 661-666c) requires that wildlife, including fish, receive equal consideration and be coordinated with other aspects of water resource development. This is accomplished by requiring consultation with the U.S. Fish and Wildlife Service, NMFS and appropriate state agencies, whenever any body of water is proposed to be modified in any way and a Federal permit or license is required. These agencies determine: (1) the possible harm to fish and wildlife resources; (2) the measures needed to both prevent the damage to and loss of these resources; and (3) the measures needed to develop and improve the resources, in connection with water resource development. NMFS submits comments to Federal licensing and permitting agencies on the potential harm to living marine resources caused by the proposed water development project, and provides recommendations to prevent harm.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act, first passed in 1976 and amended in 1996, is the primary legislation governing marine fisheries in the United States. This legislation established eight regional Fishery Management Councils to manage fishery resources in the Exclusive Economic Zone under Fishery Management Plans (FMPs) for Federally managed fisheries. Plans may include one or several species and are designed to achieve specified management goals for a fishery.

The 1996 re-authorization of the Magnuson-Stevens Act included a provision for Essential Fish Habitat (EFH). The act states: "One of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine, and other aquatic habitats. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States" (16 U.S.C. 1801 (A)(9)). The definition of EFH in the legislation covers: "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The legislation mandates that NMFS and the Councils implement a process for conserving and protecting EFH. Key features of this process are:

1. *Designate EFH.* Councils are required to describe and identify EFH for each life stage of the species included in their FMPs.
2. *Minimize to the extent practicable the adverse effects of fishing on EFH.* Councils must assess fishing impacts to EFH, taking Habitat Areas of Particular Concern (HAPCs) into special consideration (i.e., habitat types that are especially sensitive, ecologically important, or rare), and minimize the impacts of fishing on EFH to the extent practicable.
3. *Consult on potential fishing and non-fishing impacts to EFH.* NMFS and the Councils are required to comment on activities proposed by Federal action agencies (e.g., Army Corps of Engineers, Federal Energy Regulatory Commission, Department of the Navy) that may adversely impact areas designated as EFH.
4. *Further review of decisions inconsistent with NMFS or Council Recommendations.* If a Federal agency decision is inconsistent with a NMFS conservation recommendation, the Assistant Administrator for Fisheries may request a meeting with the head of the Federal action agency to review and discuss the issue.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) (42 *U.S.C.* 4321-4347) requires Federal agencies to analyze the potential effects of a proposed Federal action which would significantly affect the human environment. It specifically requires agencies to use a systematic, interdisciplinary approach in planning and decision-making, to insure that presently unquantified environmental values may be given appropriate consideration, and to provide detailed statements on the environmental impacts of proposed actions including: (1) any adverse impacts; (2) alternatives to the proposed action; and (3) the relationship between short-term uses and long-term productivity. The agencies use the results of this analysis in decision making. Alternatives analysis allows other options to be considered. NMFS plays a significant role in the implementation of NEPA through its consultative functions relating to conservation of marine resource habitats.

Rivers and Harbors Act of 1899

The Rivers and Harbors Act of 1899, Section 10 (33 *U.S.C.* 403) authorizes the USACE to regulate activities that affect waters of the United States. These activities include construction of wharves, piers, jetties; and excavating or altering stream channels of navigable waters. NMFS may comment on proposed activities (usually via the FWCA); and the CWA 404(q) elevation process (see Clean Water Act, above) is available to NMFS under the Rivers and Harbors Act.

7/25/19



Commissioners,

The applicant comments for AD-1907 received on 7-16-19 are just as incomplete and unsubstantiated as the original application. It is still impossible to determine the scope of the proposed operation due to the lack of information. The application is full of opinions and unsupported statements but has very few details and hard facts concerning the operation. In fact the original application contains very few if any actual disclosures concerning the mining operation. It should have been rejected upon submission for its incompleteness, lack of information and supporting facts. I am shocked that none of the commissioners have not questioned any of the statements made by the applicant or asked for more information from the applicant concerning how he proposes to conduct this mining operation. The "findings" of the commission on their Staff Report are merely repeating the opinions and unsubstantiated statements made by the applicant. There are no actual findings. There is no evidence of an investigation of any kind by the commission as they are required to do. This is disturbing to me.

The application is at best incomplete. The Oregon Statute and the zoning ordinance requires that the land use decisions be supported by factual findings. The burden of proof is on the proponent therefore it is required that the application provide findings to support the request of this application. These findings must be sufficiently specific to allow the decision maker to determine whether the application meets the relevant standards.

The applicant has not provided any formal plans, studies or any proof that he has contacted any environmental agencies or even any of the Government agencies that he is required to do. At a very minimum he should have included a gravel budget, a study of the rivers current condition and what affects this proposal will have on the river and salmon habitat. He should have had all his ducks in a row long before he ever submitted this application. This is a waste of taxpayer dollars and resources. Again, this application should have been rejected upon receipt.

More harm than good can be done to a river without proper planning and execution. It is quite evident that there is no plan and that extremely little thought has been put into the execution of this operation. The application is so incomplete and lacking in information concerning the execution of the mining operation itself, and virtually no supporting facts that it is impossible for a reasonable person to make an educated decision on this application. Any commissioner that votes for approval of this application will be shunning their responsibilities to the community and be derelict of duty.

You must not approve this application.

Respectfully

Garth Foskett

24299 Carpenterville Rd
Brookings, OR 97415



July 31, 2019

To: Becky Crockett, Planning Director, Curry County Planning Commissioners

RE: Response to "Applicant Comments Received 7-16-19"

AD-1907 – Ronald Adams, Applicant

Conditional Use Permit, Aggregate Mining & Processing on the Pistol River

I strongly oppose granting approval of AD-1907. This document, prior submissions, and hearing presentations by the applicant Mr. Adams have failed to provide information adequate to make an informed decision to approve this permit.

Although Mr. Adams has provided a map and photos showing the mining site location, and identified scalping as the mining method he would like to employ for his aggregate mining operation on the Pistol River, I find no other factual details in his 7/16/19 submitted documents that would be considered as evidence for approval of this permit. He has provided no documentation of controls for concerns raised regarding noise, dust, transport, hours of operation, total gravel removal over life of permit, etc. There have been no reports provided with respect to hydrology/hydrogeology addressing the impact of gravel removal and what is possible for the Pistol River to sustain without compromising the interdependence of river systems and other environmental concerns. No reports or submissions from professionals (ODFW, Army Corp, etc.) confirming that his site selection is appropriated or that scalping is a suitable or the best method to be used based on the needs of the Pistol River. Many questions remain unanswered as previously pointed out during the public hearing and submissions on record from numerous environmental agencies and the public. The Planning Commissioners simply do not have adequate, factual, information and reports to support an informed decision for approval of this permit and doing so would show a clear abdication of their responsibilities.

I continue to hear from Mr. Adams and others that the Pistol River has been utilized in the past for gravel mining to support county roadwork with no ill effects. When in truth, the Pistol River and the valley has been damaged with a multitude of human activities including but not limited to logging, grazing, agriculture, gravel mining, river flow changes, etc. with no control or concern for what is right for the ecology of this area. Yes, gravel was mined in the river in the past but that occurred nearly 50 years ago for building Highway 101 and as we all know there have been many legal actions and protections enacted to protect the environment, fish and wildlife in the area.

Lastly, I would like to comment on Mr. Adams intent to become a steward for the Pistol River providing his services and land as a means of restoring and repairing the Pistol River. He has previously discussed and now comments that he has spent a great deal

of money purchasing Pistol River property for the purpose of river restoration, environmental issues, and river repair. However, in his initial permit submission he states that his basic proposal is to "remove gravel and sell it". What is his true goal? If Ron truly has a sincere wish to be a steward of the Pistol River there are many local agencies that would love to work with him to do just that. At the time he purchased the land parcels he now wants to mine gravel on Wild Rivers Land Trust was attempting to raise funds to do just that and I find it hard to believe he did not know about that activity especially since he was purchasing this land to "repair and restore the river and surrounding environment". To date there have been no known attempts by Ronald Adams to speak with any of the local organizations such as Wild Rivers Land Trust, Native Fisheries, Oregon Shores Conservation, Audubon, etc.

For these reasons I request that the Curry County Planning Commissioners reject the request for approval of AD-1907, permit to mine and process aggregate on the Pistol River.

Respectfully Submitted,



Eleanor Foskett
24299 Carpenterville Road
Brookings, OR 97415
(408)242-9503
efoskett2@gmail.com

Penny Hudgens

From: Becky Crockett
Sent: Thursday, August 01, 2019 4:47 PM
To: Penny Hudgens
Subject: FW: Additional Testimony for AD-1907
Attachments: NFS Additional Testimony AD-1907.pdf

Becky Crockett
Planning Director
(541) 247-3228
crockettb@co.curry.or.us

From: Mark Sherwood [<mailto:mark@nativefishsociety.org>]
Sent: Thursday, August 1, 2019 4:44 PM
To: Becky Crockett
Subject: Additional Testimony for AD-1907

Dear Becky,

I would like to submit additional testimony to the record regarding the proposal to mine gravel in the estuary of Pistol River. Attached is our comment letter.

Additionally, I'd like the planning commission to know that I'd be happy to help Mr. Adams connect with our local habitat restoration practitioners who would be able to help him put together a scientifically defensible restoration plan for his property.

Pistol River is so important to our community - it's critical when we act in sensitive areas that we do so with the planning and knowledge necessary to do good work.

Warmly,
Mark

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MARK SHERWOOD
Executive Director | Native Fish Society
813 7th Street Ste. 200A, Oregon City, OR 97045
Cell: (303) 898-8988 | Office: (503) 344-4218
nativefishsociety.org • [Facebook](#) • [Twitter](#) • [Instagram](#)



August 1, 2019

Becky Crockett, Planning Director & Planning Commission
Curry County Planning
94235 Moore Street Ste. 113
Gold Beach, OR 97444

Re: Conditional Use Permit for Gravel Mining in Pistol River Estuary - In Person Comments

Dear Planning Director Crockett and members of the Planning Commission,

This testimony is submitted on behalf of the Native Fish Society, an Oregon based non-profit organization, that exists to build the groundswell of public support needed to revive abundant wild fish, free-flowing rivers, and thriving local communities. Our work is advanced by our 4,000 members, supporters, and volunteers including four River Stewards based in Curry County. Additionally, as a resident of Pistol River, I'm both professionally and personally invested in the revival of abundant wild fish in my home river.

I appreciate the opportunity to provide additional comments in response to the information submitted by Mr. Adams on July 15th. From a substantive standpoint, the additional information indicates he intends to remove the gravel by bar scalping, not leave any holes, and will at no time be anywhere near the water. The map provided still highlight two parcels of land with one of them indicating a "gravel site" directly adjacent to the estuary.

Since the June meeting, I've been in communication with our local ODFW office, the Wild Rivers Land Trust, and the South Coast Watershed Council. All three of these entities have expressed interest in working with local private landowners and in particular to improve fish habitat and bank stability on this piece of property. To my knowledge, Mr. Adams has not been in contact with, nor has plans in development with any of these river restoration entities in relationship to this gravel mining project. As a result, despite the conservation emphasis in his letter, his ambitions to gravel mine are not based on any biological or hydrological expertise or recommendations that are connected with river restoration professionals. What we do know is that biologists from state and federal fish and wildlife agencies do NOT consider gravel mining a restoration activity without significant study and review of plans.

Additionally, I believe if the Planning Commission approves this application they are giving their blessing to an application that fails to meet what the Curry County Zoning Ordinances require before the Planning Commission can lawfully issue a conditional use permit for mining, quarrying, or other extractive activity. Namely, that “plans and specifications that come before the Planning Commission must contain sufficient information to allow the Commission to review and set siting standards related to standards 1-9.”

In particular to standards 1,2, and 3, which includes providing information on the impact to surrounding lands; water quality, water flows, fish habitat; overall land stability, vegetation, wildlife habitat, and land and soil erosion - it's clear this application does not contain sufficient information.

There is no empirical evidence provided to substantiate that gravel extraction of an unknown quantity will produce benefits for the river or its threatened fish. There is still no description of potential impacts to the river and bridge downstream, nor any mitigation measures to be undertaken to offset the impact from gravel mining operations. Likewise, there are no details provided for when gravel extraction will occur. During the fall, winter, and spring most of these gravel bar areas are part of the wetted stream. There is no hydrological nor channel migration report cited, which would describe the future movement of the stream and its river channel, which is critical to assess where the substrate will be deposited in the future. Likewise, there is no gravel budget describing the amount of gravel depositing, what may be surplus, and still no quantification for how much gravel Mr. Adams intends to remove. Taken together, it is clear that Mr. Adams's application does not meet CCZO standards.

I strongly encourage the Planning Commission to deny the conditional use permit, unless the applicant can provide sufficient evidence for review, including proof that gravel operations will not harm fish, their habitats, and water quality.

Thank you for your time and your consideration of these comments.

Warmly,

A handwritten signature in black ink, appearing to read 'Mark Sherwood', written in a cursive style.

Mark Sherwood, Executive Director

Documents too large to load and can be found online:

[Gravel Disturbance Impacts on Salmon Habitat and Stream Health – March 1995](#)

[Sediment Removal from Active Stream channels in Oregon – March 1, 2006](#)



CURRY COUNTY COMMUNITY DEVELOPMENT
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Curry County Planning Commission

Meeting Summary of

June 20, 2019

Chair Ted Freeman called the meeting to order at approximately 5:30 pm. Nancy Chester did a roll call. Members present: Ted Freeman, Diana St. Marie, Sharon Jensen Lynne Dewald and Michael Lange. Staff Present: Director Becky Crockett, Nancy Chester, and Nancy O'Dwyer. Director Crockett read the procedures for quasi-judicial hearings.

Chair Freeman inquired whether board members had any ex parte contact or conflict of interest with the two applications proposed. Commissioner Jensen noted email contact with a citizen regarding the Edson Creek Quarry (AD-1909) in an attempt to obtain more information about the proposed project. She noted that she now understood that would be ex parte contact. Chair Freeman asked whether this would influence her participation and Commissioner Jensen did not feel it would impact her decision. Chair Freeman felt he might be biased in regards to the Pistol River gravel extraction proposal (AD-1907) since he had done business with Mr. Adams in the past. Chair Freeman said he would exclude himself from the AD-1907 discussion and decision.

Chair Freeman made a request to hear any public comments for items that were not on the agenda. There were none. Chair Freeman then requested approval of the minutes from April 25, 2019 meeting. Commissioner Lange motioned to approve the minutes and Commissioner Jensen seconded the approval. Board approved unanimously.

Chair Freeman introduced the Edson Creek Quarry proposal, AD-1909. Director Crockett presented the project request, noting regulatory review would be required by numerous agencies and that county was involved to make sure rock was taken responsibly. This could have been an Administrative Decision by the Director, but Director chose to bring it to a public hearing. This would be a 20-25 year project with a potential of hiring 20 employees. There have been 3 prior applications approved in 1984, 2009 and 2012, and all have been approved. Director Crockett noted she had reviewed the public comments received, and that ORCA requested a 14-day extension on the hearing. Commissioner Jensen asked for an explanation of the 14-day extension and whether past approvals were from the board. Chair Freeman opened the hearing to public statements.

Chuck Nyland, applicant, introduced Kiewit's plan for the rock quarry, noting that rock at this site is a specialized stone. Kiewit, a union contractor, would hire about 20 employees, mostly local, as well as trucking haulers. Mr. Nyland noted that although there had been prior approvals for rock extraction, the quarry had not yet been developed due to the high cost of extraction. Mr. Nyland also reviewed some projects in the region needing this type of rock.

Commissioner Lange asked about the possible rock use on the North Jetty repair project on the Columbia River and also confirmed that there were no houses near the proposed quarry. Commissioner Jensen asked what impact the trucks would have on the road. Mr. Nyland reviewed the weight and dust mitigation. Commissioner Lange asked about water in regards to fire protection, dust, etc. Mr. Nyland noted that there would be a water truck for reducing dust on the road and mitigation of a small stream. He also noted that there will be a lease agreement and that the reclamation will be bonded, summarizing how the reclamation would be done.

Richard Christiansen, county road master, anticipated little impact to the county roads. He went on to note his concerns and what requirements were needed to address those concerns. A facility permit would be required for the project.

Chair Freeman asked whether anyone else wanted to speak in favor of the project. There were none. Chair Freeman asked if anyone wanted to speak in opposition.

Eric Oberbeck (94408 Sixes River Rd, Sixes) presented his concerns about slides and existing road condition, plus the weight of loads. Mary Jane LaBelle (94408 Sixes River Rd, Sixes) presented her concerns about noise (early morning trucks along the road) and requested that the hearing be left open.

In rebuttal, Mr. Nyland addressed maximum load size and noted he was open to monitoring road conditions. County road master noted he had consulted with prior road master, and he also had no concerns about the county road. Days and hours of operation were also discussed.

Chair Freeman asked board members whether they wanted to discuss continuing the hearing. Commissioner Jensen motioned to continue the hearing, but this was not seconded. Commissioner St. Marie motioned to close hearing and leave record open for 7 days. Commissioner Dewald seconded the motion. Motion approved (aye: Freeman, St. Marie, Dewald, and Lange; nay: Jensen).

Chair Freeman introduced the proposal for the Pistol River gravel extraction, AD-1907. Director Crockett reviewed the application, noting that this property has history as a gravel extraction site and is noted as a Goal 5 resource. There has been a previous approval for gravel extraction on this site, but it was revoked when licenses and permits were not obtained within the specified time. Director Crockett advised that the application lacks details and there has been only limited agency co-ordination. Furthermore, the estuarine influence makes it more difficult. She has reviewed the

public comments received and there is a request to leave the record open for 14 days. Vice Chair St.Marie opened the hearing to public statements.

Ron Adams, applicant, reviewed his request and discussed the history of the parcel. Mr. Adams feels his application supports the Clean Water Act and fish development. Protection of the fish (habitat) is his primary interest and wants to repair the river.

Garth Foskett (24299 Carpenterville Rd, Brookings) read and submitted his statement, stating that this project is not river protection. Discussed concerns about river, environment, noise, dust, and road use. He feels that project will negatively impact properties close to the project and feels the application is incomplete. Mr. Foskett asked board members to deny the application.

Mark Sherwood (24991 Pistol River Loop, Gold Beach) discussed the importance of an estuary in fish development and his concerns about gravel mining in the Pistol River estuary. Mr. Sherwood stated that the Curry County Zoning Ordinance requires sufficient information to make a decision, but he feels that this application is incomplete, lacking studies and impact information, so he recommended that the board delay the hearing. Commissioner Lange asked Mr. Sherwood whether gravel removal would improve estuary. Mr. Sherwood felt it could benefit from less gravel, but the issue was where and how.

Ron Plumlee (24195 Carpenterville Rd, Brookings) discussed his concerns about the Pistol River bridge, whether it could support the weight of the hauling trucks. Also, he felt this area of the Pistol River is pristine and is concerned about the wildlife, noise and possibility of reduced property values.

Eleanor Foskett (24299 Carpenterville Rd, Brookings) stated her concerns about the gravel extraction project impacting the quality of life and property values. She also asked that the hearing be held open.

Vice Chair St.Marie asked whether Mr. Adams wanted to provide a rebuttal to those in opposition to his project. Mr. Adams stated that he is not a gravel company. He is concerned about Carpenterville Rd and the bridge being washed out, and he is concerned about the estuary condition. Mr. Adams noted that 3ft of gravel was deposited on his pasture this last winter, and showed two photos. Mr. Adams noted that he has discussed this project with several agencies.

Commissioner Jensen asked Director Crockett about which agencies would be involved. Director Crockett noted Corp of Engineers would be the lead agency and mentioned other agencies which would be involved. She also noted that the time to contact agencies for permits and licenses would likely be lengthy, warranting a 3-year conditional use permit for the applicant to comply with the conditions of approval.

Vice Chair St.Marie asked whether the board wanted to discuss the application. Commissioner Lange motioned to continue the hearing to the July 18, 2015 board

meeting. Commissioner Jensen seconded the motion. Upon vote, the motion did not pass (aye: Jensen, Lange; nay: Dewald, St.Marie; recused: Freeman). Vice Chair St.Marie motioned to close the hearing and leave the record open for 7 days. Commissioner Dewald seconded the motion. Upon vote, the motion did not pass (aye: Dewald, St.Marie; nay: Jensen, Lange; recused: Freeman). Commissioner Lange motioned to close the hearing, leaving the record open for 14 days. Commissioner Dewald seconded the motion. The vote was approved (aye: St.Marie, Dewald, Lange, Jensen; recused: Freeman).

Chair Freeman asked if there were any Planning Director Updates. Director Crockett introduced Nancy O'Dwyer as a new planner, and noted that there are now two vacancies on the Planning Commission (one position open in north Curry County and one position open in Central Curry County). Chair Freeman adjourned the Planning Commission meeting at approximately 7:35 pm.



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Curry County Planning Commission

**Meeting Summary of
July 25, 2019**

Chair Ted Freeman called the meeting to order at approximately 5:30 pm. Nancy O'Dwyer did a roll call. Members present: Ted Freeman, Diana St Marie, Sharon Jensen Lynne Dewald and Michael Lange. Staff Present: Director Becky Crockett, County Counsel John Hutt, and Nancy O'Dwyer. Chair Freeman made a request to hear any public comments for items that were not on the agenda. There were none. Director Crockett read the procedures for quasi-judicial hearings.

Chair Freeman inquired whether board members had any ex parte contact or conflict of interest with the two applications proposed. Director Crockett noted that there is a form available for reporting conflict of interest. Chair Freeman noted his past work in the rock business, but that he has fully retired. Because of his history, Chair Freeman felt he had ex parte contact for the Kiewit/Foster proposal of the Upland Quarry (AD-1909). County Counsel Hutt asked whether this ex parte contact would impact Chair Freeman's consideration of facts and evidence on the proposal, and Chair Freeman confirmed that it would not. As reported in the last Planning Commission meeting (6/20/2019), Chair Freeman felt he had a conflict of interest in regards to the Pistol River Gravel Extraction (AD-1907) since he had done business with Mr. Adams in the past. Chair Freeman said he would again exclude himself from the AD-1907 discussion and decision.

Chair Freeman then requested approval of the minutes from June 20, 2019 meeting. Commissioner Jensen motioned to approve the minutes and Commissioner Dewald seconded the approval. Board approved unanimously.

Chair Freeman asked Vice Chair St Marie to take over the meeting for the Pistol River Gravel Extraction proposal, and Vice Chair St Marie asked Director Crockett to review the status of AD-1907. Director Crockett reminded the board that the record was left open for 14 days for public comment. The applicant then had 7 days to respond to the public submittals. However, the applicant's response included new information. Director Crockett explained that, per Oregon Statute, if new information is received during this process, then the comment period needs to be re-opened. Director Crockett noted that Assistant County Counsel Kudlac had reviewed the submitted information and suggested that the comment period be re-opened. County Counsel Hutt stated the bottom line is that the commissioners are not yet in a position to decide on this

proposal, since Oregon law says the public can respond. However, submittals can only be in response to the new information. Commissioner Lange asked if it was unusual to leave comment period open to the next planning commission meeting. County Counsel Huttl noted that there is a difference between response time and time of the next meeting, explaining that the board can set a time for public comments (usually 7 to 14 days), then the applicant has 7 days to respond and then the staff has 7 days to assimilate the responses. Commissioner Lange asked Director Crockett how much time staff needed. Director Crockett stated 4 days. County Counsel Huttl also expanded that he had received an email of questions about hypotheticals, enforcement, etc, but that these items should be discussed during board deliberations. Commissioner Lange moved to re-open the record for 7 days for public comment on new information. Commissioner Dewald seconded the motion and the board approved unanimously. A public viewer asked whether this meant 7 business days or 7 calendar days. County Counsel Huttl confirmed 7 calendar days, reviewed the website access, and asked for staff's phone number.

Chair Freeman opened the next agenda item, the proposed Kiewit/Foster Conditional Use Upland Quarry (AD-1909). Director Crockett summarized the proposal and stated that the situation was similar to the prior proposal (Adams AC-1907). Comments had been received into the record for 7 days (following the last planning commission meeting) and the applicant submitted substantial information in response. Since new information was included, Oregon statute requires that the record be reopened for public response to the new information. Commissioner Jensen asked whether it should be 7 or 14 days. County Counsel Huttl clarified that it could be no less than 7 days. Vice Chair St Marie inquired how much staff time was needed. Director Crockett stated 4 days, with information posted online, ready for the next meeting on August 15th. Director Crockett clarified that her aim is to give the planning commission 10 days to review information prior to a meeting.

Commissioner Jensen questioned how notice was given. Director Crockett explained that the information is placed in the two newspapers and posted on the website. The Curry County Zoning Ordinance requires that we notify property owners within 500ft. Chair Freeman clarified that notice is given to property owners within 500ft from the property lines, not the proposed project site. Commissioner Jensen asked which newspapers were noticed, and Director Crockett noted that the two recognized by the county were the Brookings Pilot and the Curry County Reporter. County Counsel Huttl noted that there is no prohibition against extending the scope of notification, and mentioned that the county has recently added the Port Orford News to the list of recognized newspapers. Commissioner Jensen asked Director Crockett to add the Port Orford News newspaper to the notification list. County Counsel Huttl noted that people can ask to be included to notifications. Director Crockett agreed, also noting that this information is also accessible from the Planning Commissioners website.

Chair Freeman asked if there were any Planning Director Updates. Director Crockett noted two recent newspaper articles. The Capital Press reported on the Adams Gravel Extraction proposal. Director Crockett noted that the reporter had called about the

proposal and requested information collected for the file. The Brookings Pilot had an article stating that the Sant Pacific project had been approved. Director Crockett explained that this project has Administrator Approval for the PUD, but the proposed subdivision application will be on the agenda for next month's planning commission meeting. Another possible addition to the agenda will be a proposal for a new RV Park in Nesika Beach. Commissioner Lange asked why a PUD would need to apply for a subdivision. Director Crockett explained that a PUD can be held as one lot; but, if the property owner intends to sell PUD units, then a subdivision must also be completed. County Counsel Huttl recommended that the newspaper articles be included in the staff report.

County Counsel Huttl also asked how many openings there are for the planning commission board. Director Crockett noted that there are still 2 openings, 1 in the Central County area and 1 in the North County area. Vice Chair St Marie asked if the positions were being actively recruited. Director Crockett said no, but that one person had just expressed an interest in the North County position that day. County Counsel noted that there is passive recruitment via the posting on the Planning Commission Website. Director Crockett noted that she was happy with the current board, and didn't want to get in the situation where there were 6 members (even number). Commissioner Jensen also commented that she appreciated the staff. Chair Freeman adjourned the Planning Commission meeting at approximately 7:35 pm.



Chair – Ted Freeman
Vice Chair – Diana St. Marie
Commissioner – Lynne Dewald

Commissioner – Sharon Jensen
Commissioner – Michael Lange

Curry County does not discriminate against individuals with disabilities and all public meetings are held in accessible locations. Auxiliary aids will be provided upon request with 48 hours advance notification. Please call 541.247.3304 if you have questions regarding this notice.

Planning Commission Meeting Agenda
Thursday, August 15, 2019 at 5:30 PM
County Annex, 94235 Moore Street / Blue Room, Gold Beach, Oregon

- 1. Call to Order / Roll Call**
- 2. Pledge of Allegiance**
- 3. Public Comment for Items Not on Agenda**
- 4. Review / Comments / Changes to Agenda**
- 5. Review Procedures for Quasi-Judicial Hearings**
- 6. Opportunity for Commissioners to Identify any Ex-Parte Contacts, Bias or Conflict of Interest**
- 7. Agenda**
 - a) Approval of July 25, 2019 Minutes**
 - b) Discussion/Decision on AD-1907 Adams Conditional Use for Pistol River Gravel Extraction**
 - c) Public Hearing – Pacifica at Rogue Reef Subdivision Preliminary Plat and Plan**
- 8. Planning Director Updates (time permitting)**
- 9. Adjournment @ 8:00 PM**

Note: The Kiewit/Foster Application (AD 1909) for the rock quarry has been moved to the September 19th, 2019 Planning Commission Agenda



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Curry County Planning Commission
Summary of September 19, 2019 Meeting

Chair Ted Freeman called the meeting to order at ~5:30 pm, noting that the board would take five minutes to review newly received comments. Planning Commission members present were Chair Ted Freeman, Vice Chair Diana St. Marie, Commissioner Sharon Jensen, Commissioner Lynne Dewald and Commissioner Michael Lange. Planning Department staff present were Director Becky Crockett, County Counsel John Huttli, and Planner Nancy O'Dwyer. Chair Freeman asked whether anyone wanted to comment on not listed on the agenda, but there were none. Director Crockett reviewed the procedures for quasi-judicial proceedings.

Chair Freeman inquired whether board members had any ex parte contact, bias or conflict of interest with the applications to be discussed, but only Chair Freeman noted a bias in regards to AD-1907 (application for gravel extraction on Pistol River). Chair Freeman asked whether there were any changes to the minutes from August 15, 2019 meeting. Vice Chair St Marie asked for two grammatical corrections and Commissioner Jensen asked for page numbers to be added to the meeting summaries. Commissioner Lange motioned to approve the minutes, Commissioner Jensen seconded the approval, and the board approved the motion unanimously.

Chair Freeman introduced the Final Order on AD-1907 (application for gravel extraction on Pistol River), but excused himself from the discussion, as he has during the prior meetings. Director Crockett gave a brief history of the application, concluding with the board decision during the August meeting to deny the application since the applicant had not provided enough site specific information about the proposed gravel extraction to adequately address the zoning ordinance criteria. Commissioner Lange motioned that the Final Order be approved, which was seconded by Commissioner Dewald. With the exception of Chair Freeman, the board approved unanimously.

The Kiewit/Foster Rock Quarry (AD-1909) application was then introduced by Chair Freeman. Director Crockett gave a brief history of the application, concluding that the applicant withdrew the application since they were not the successful bidder on the project to repair the Columbia River jetty. The property owner confirmed the withdrawal by a separate email and notice was sent out. Counsel Huttli recommended that the board recognize the withdrawn application since it had at one point been brought up for a decision. Vice Chair St. Marie moved to acknowledge the withdrawn application, Commissioner Lange seconded the motion, and the board approved the motion unanimously.

The Final Order for the Pacifica at Rogue Reef Subdivision (S-1901) was introduced and Director Crockett summarized the application for a 33 lot subdivision within the Gold Beach Urban Growth Boundary. Following the public hearing, the board approved the preliminary plat and plan during the August meeting. Chair Freeman asked for clarification about the Rain Gardens and Director Crockett explained that protective fencing was an added condition since the rain gardens have dual use as a play area for kids. Commissioner Jensen moved to approve the final order, Commissioner Lange seconded the motion, and the board approved the motion unanimously. Director Crockett noted that the applicant had just submitted a Planning Clearance to construct one dwelling.

The public hearing was then opened on the Evey/Shower Silver Cypress RV Park (AD-1911), an application requesting conditional use approval of a vintage RV park, with 11 upgraded units catering to young couples, yoga retreats, and artists. Director Crockett explained that the applicants intend to convert the existing house to a manager's unit and to refurbish the old restaurant as a gathering room. A prior application for this use was approved in 2018 as an Administrative Decision, but the application was appealed to the Planning Commission and the appeal meeting, scheduled for December 2018, did not have a quorum. The applicant withdrew the application in January 2019.

The primary issue arising from the first application was concern over coastal erosion, and this new application includes a geological analysis with recommended conditions for this project to proceed. Director Crockett summarized the key issues of the staff report: 1) identified wetland areas, 2) rural commercial zoning, 3) storm and surface water management, 4) cliff erosion, and 5) lighting and vegetative buffers. The proposed plot plan was displayed, identifying the RV spaces, parking area, manager's unit and gathering room, two septic systems, and underground ditches for divert surface and storm water. Director Crockett responded to Chair Freeman's question that vacation of the lot line between the two tax lots was a condition of approval. In regards to Commissioner Jensen's question about concerns from neighbors about noise in the RV park, Director Crockett noted that the applicants intend for this RV park to be a new style (an RV park which maintains a relaxing and calming atmosphere for the guests).

Director Crockett reviewed the public notification procedure and noted that most comments focused on protecting the eroding bluff, restricting beach access, restricting building on the bluff, and suggesting barriers and signage to protect the bluff. The geotechnical report also recommends restricting bluff access as a project condition. Director Crockett responded to Commissioner Dewald's question that fencing was not required, but expanded that the board can recommend conditions to protect the health and safety of the community and county. Requests were received to extend the public hearing, extend the comment period, and obtain septic feasibility prior to board approval. Counsel Huttl asked whether all the recent comments up to 4:30pm had been addressed, mentioning receipt of a late comment received about the drainage plan.

At Chair Freeman's inquiry, Director Crockett confirmed that all recommendations listed in the geotechnical report are included as conditions of project approval. Director Crockett also recommended that the project be reviewed every three years to ascertain compliance with the conditions. Chair Freeman asked whether adjoining lots had similar drainage issues. Director Crockett confirmed there is significant erosion along the bluff; and, if the applicant follows the recommendations of the geotechnical report, they will be directing water away from the bluff. Chair Freeman then asked if the applicants would like to speak.

Applicant Evey (399 N Laurel, Ashland and Nesika Beach) and Applicant Shower (220 Autumn Reach Dr, Talent) introduced themselves, noting that their presentation was a shortened version on one presented to the Nesika Beach community about 1 month ago. Applicant Evey noted they have two septic systems, but that they proposed development a new septic since they would rather not use the DEQ approved system near the bluff. Applicant Evey noted they would like to do as much as possible to preserve the bluff (plantings, etc).

Applicant Evey explained that the project is modeled after several successful auto camps. They will cater to younger couples since 72% of Oregon's coastal tourists are single or couples (kids or dogs will not be allowed). Upon question from Commissioner Lange, Applicant Evey confirmed that the RVs will be park owned and used for short-term (2-5 night) rentals. The RVs will be stationary so the applicants will have control over unit maintenance. Units will have decks with spas, 4ft fencing, low-level lighting and will be refurbished onsite. There will be an onsite manager for maintenance, and the applicants anticipate an employment payroll of ~\$107,000 and a Transient Lodging Tax of about \$40,000.

Upon question from Commissioner Dewald, Applicant Evey noted that they had built stairs to the beach when they bought the property, but the stairs were removed that winter. The applicants replanted the bluff and placed a barrier preventing access. Applicant Evey stated that they would prohibit beach access and that guests would be directed to the beach access about ¼ mile to the north. Applicant Showers responded to Vice Chair St. Marie's question noting that there will be a lighted area at the gathering room near the park entry, similar to residential lighting. Applicant Evey responded to Commissioner Jensen's question, saying that there will not be public restrooms, but that a laundry facility will be built for guest use. When asked by Chair Freeman, Applicant Evey confirmed their intent to meet all the geological requirements. He also noted that the civil engineer (CEC, Medford) has a feasible drainage plan, but that he was unsure of how to describe it. Applicant Showers answered Commissioner Lange that they have owned the property for about 4 ½ years and the anticipated rents would be about \$200/night (off season) to \$250/night (high season). The applicants feel that these prices provide incentive to keep the project polished, stating that their goal is to be on the cover of Sunset Magazine.

Applicant Evey responded to Commissioner Jensen's question, saying that the proposed RV park is not typical for the area, but that it would be a good fit and he felt positive

about the information meeting given to the neighborhood. Commissioner Jensen asked if traffic would be increased given the short stays by their guests, but Applicant Evey explained that there are many Air B&Bs already on Nesika Beach Rd and this was not an issue. Upon question from Commissioner Jensen, Director Crockett acknowledged that it was the geologist's position that the geology report recommendations would result in better site stability. Vice Chair St. Marie asked about the staff report's condition for low-level lighting, and Applicant Evey responded that there will be low-level lighting at each site for safety (not light strings). Commissioner Lange noted that three infiltration ditches were drawn on the plot plan, but that the interceptor drain was not shown. Applicant Evey was unsure about the drainage system design, but he trusts that the geologist and civil engineer can solve the drainage issue. He noted that there will be a curtain drain, swales will catch any sediment from surface water, and standing water was not an issue.

Chair Freeman asked if there were any proponents wanting to speak in favor of the project. Ronald Mecham (94470 B Street, Gold Beach) stated that Nesika Beach traffic is limited to local commute traffic, there is no beach access along the bluff, and bluff stairs have been removed from erosion or neighbor requests. He believes this will be a positive development and would like to see this project done. Carl King (33085 Nesika Rd, Gold Beach) described the state-allowed access to the north (via the ODOT stubbed road), stated there was no legal access from bluffs and noted that three property owners had been notified by planning in the recent past that bluff stairs were a violation. He stated that he is not opposed to this project, but he is concerned about protecting the bluff. He does not support plantings on the bluff (wants the bluff to be left natural, unaltered) and he would like a 25ft prohibition zone added to the bluff, as well as perimeter fencing. Dennis Vories (29142 Via Peidra, Valley Center, CA and 33026 Nesika Rd, Gold Beach) stated he originally opposed the project, but that he likes the reduction in RV spaces and he is impressed by the applicants and their other projects. He noted concern about bluff erosion and described his work to protect the bluff. He is confident that this is going to be a great project.

Applicant Evey amended that the stairs had been approved, along with the bluff plantings, but that the stairs were removed due to heavy rains. Applicant Evey, responding to Vice Chair St. Marie's inquiry about a 25ft barrier, noted that a simple rope barrier keeps guests ~5-8ft back from the edge, but there is no signage. Applicant Evey responded to Commissioner Lange's question that the utilities were underground, except for propane. The applicant's confirmed to Vice Chair St. Marie that they planned to leave the existing fence since it was added to replace an old rusty fence.

Chair Freeman asked if anyone wanted to speak in opposition of the application, but there was no response. Chair Freeman asked if the board was ready to close the public hearing, but Counsel Huttel noted the request for a 14 day continuance. Commissioner Lange expressed his belief that planting vegetation preserves the bluff, especially native plants. Commissioner Lange motioned that the hearing be closed and the record left open for 14 days, Commissioner Dewald seconded it, and the board approved the motion unanimously.

Chair Freeman asked if there were any Planning Director Updates. Director Crockett mentioned that the applicant for the Pacifica at Rogue Reef subdivision asked to postpone the next meeting by one week (from Oct 17 to Oct 24). Sant Pacific anticipates completion of the final subdivision plat during the first week of October and an extension would allow them time to prepare for the final plat for the board's approval. Director Crockett proposed contacting board members once they could review their calendars. Commissioner Lange motioned to adjourn the meeting, Vice Chair St. Marie seconded the motion, and the board unanimously approved the decision. Chair Freeman closed the Planning Commission meeting at approximately 7:05 pm.

ATTACHMENT S

**TRANSCRIPT OF
PLANNING COMMISSION
MEETINGS**

June 20, 2019

July 25, 2019

August 15, 2019

September 19, 2019

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PARTIAL TRANSCRIPT OF
CURRY COUNTY PLANNING COMMISSION MEETING

(June 20, 2019)

(Re: AD-1907)

Coleman Reporters
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Crescent City, CA 95531
(707) 464-6465
office@colemanreporters.com

1 DIRECTOR CROCKETT: Okay, the next application is an
2 application in regards to, Ron Adams has submitted an
3 application for gravel extraction on the Pistol River.

4 Just some cursory background information. I just
5 mentioned the applicant is Ron Adams, and I believe he's
6 here today, so if you have questions of the applicant, you
7 can ask him.

8 The project as has been indicated to me is for a very
9 small amount of gravel extraction on the Pistol River, it's
10 10,000 cubic yards. The location is right near the Pistol
11 River Bridge. And let me see if I can give you a picture
12 here.

13 Okay. So, I believe, and this is something that we
14 can ask Mr. Adams about later, I believe his intent is to
15 look at perhaps these areas on the gravel bar for
16 extraction, but that wasn't clear in the application, so
17 that's a fair question. Just, this is Highway 101 right
18 here, Pistol River Bridge is right there. But that gives
19 you kind of an idea of the location.

20 The zoning in this area is forestry grazing. The
21 forestry grazing zone allows gravel extraction. This is
22 another one where the Curry County Zoning Code gives the
23 Planning Director the ability to approve this
24 administratively, or I can refer it to the Planning
25 Commission for public hearing, which is the decision that I

1 made is that it seemed appropriate for the Planning
2 Commission to facilitate the public hearing.

3 The site was approved for a rather large extraction
4 activity in 2003. There was a permit that was approved, it
5 was for 50,000 cubic yards to be extracted annually in 2003.
6 That was approved administratively here at the county. The
7 permit was actually revoked, though, in 2005, because not
8 all of the agency permits were able to be obtained.

9 The site itself does have a long history of gravel
10 extraction. A lot of the rock that went into Highway 101
11 came out of this site. The county has used the gravel at
12 multiple times for county projects.

13 Significant issues associated with this project, the
14 first one is one that the County is responsible for, and
15 that is the gravel site on the Pistol River, there's
16 actually two of them, they're identified as Goal 5
17 protective resources in our County Comprehensive Plan. So
18 what does that mean? It means that the County has an
19 obligation to protect the utilization of those Goal 5
20 resources. That is, we need to have the ability to get
21 gravel some place in the county to deal with issues of road
22 maintenance and other things that require that kind of
23 resource. However, our code is pretty clear that, yes,
24 we'll protect these resources, but we need to equalize
25 issues of environmental impact with the need to get the

1 resource out of the ground or out of the gravel mine.

2 Another issue with this application is the
3 application itself does lack a lot of evaluation details.
4 There's not identification of how the mining operation is
5 going to take place, whether or not it's bar scalping or
6 development of a fish bearing alcove or (*inaudible*) river
7 trenching. That's not clarified. There's not discussion
8 about the potential impacts to fish. There has been a
9 little bit of agency coordination, but not to the extent
10 that all those agencies that we talked about earlier are
11 going to expect. So that made it a little difficult to
12 evaluate the application.

13 The other thing that's fairly significant here is
14 that this area is believed to be influenced by estuarine
15 kinds of influences. So, what's happened over the last ten
16 years in regards to gravel extraction is that has become an
17 area of extreme sensitivity in regards to the agency's
18 looking at the potential impact of gravel extraction. So,
19 because it's got those estuarine influence, that will make
20 it more difficult to get through the process with the
21 agencies as far as the extent of conditions that they may
22 apply.

23 Specifically, I'll go back here just a little bit,
24 the -- I should mention -- okay, so the coho salmon, most
25 people around here are familiar with that, they have been

1 listed under the Endangered Species Act as a protected
2 species, they're listed as threatened and they are in the
3 Pistol River, and as I understand it, recently they've been
4 doing pretty good, but you know, I haven't done that
5 research to know.

6 Okay. So we've received a lot of public comments in
7 regards to this extraction activity. The public comments --
8 and there are copies of them over there if you guys want to
9 look at what has been provided, but one of the most
10 important comment is there's a request to leave the record
11 open for the applicant and for others to provide details on
12 the application as well as submit additional comments.
13 Another option is to close the hearing and leave the record
14 open, but the request has been to leave the hearing open
15 indefinitely to leave time for additional comments into the
16 record.

17 So, let's (inaudible).

18 VICE CHAIR ST. MARIE: Okay, we'll start with the
19 applicant first, Ron Adams. Can you give your name and your
20 address, please?

21 RON ADAMS: Yeah.

22 VICE CHAIR ST. MARIE: And we like to limit comments,
23 because we have several here, to about three minutes if
24 possible.

25 RON ADAMS: I don't think I can do that, but I'll try

1 to.

2 My name is Ron Adams, and my address is 26000 Meyers
3 Creek Road. I live about five miles north of this property,
4 and I own another piece of property two miles upstream from
5 this property.

6 My family's been here for over a hundred years, and
7 I'm very connected with this property. Not many people have
8 the feeling that I have for this property. I paid
9 substantially more money than what the property was worth
10 because this here is the life of Pistol River. I don't look
11 at this as gravel removal -- a gravel removal issue, this is
12 a Clean Water Act, and this is what the Clean Water Act was
13 set up for. Pistol River, when I was in high school, the
14 teachers, you know, (*inaudible*) and call it shotgun slew.
15 It was never a slew, but it is now.

16 And the agencies have had years and years of time to
17 redo the fisheries and the fisheries have gone downhill
18 every year, and it's because upstream the gravel comes down
19 the river, and it's garbage. I compare it to a farmer's
20 field, you have to have manure in the field to make the
21 grass grow. Well, when you get too much manure in there,
22 everything is destroyed. And this river has got so much
23 gravel in it that the fish cannot survive.

24 The last time we had a flood, which was in the first
25 part of June I think now, my fields have over six inches of

1 sand in them from that. Now, that is above the level of
2 high water for the water to be carrying that amount of
3 sediment. Can you imagine what there is in the river
4 itself?

5 Any fish that spawn up there are buried -- the eggs
6 are buried. And if they survive, they come down here. I
7 have pictures to back up anything that I say, but if they
8 survive and are hatched, there's no place for them to go.
9 All the logs are buried by gravel, and there's no place for
10 them to hide. The birds eat them all. And if you don't
11 believe me, go get in a kayak or a swimsuit or whatever and
12 go down (*inaudible*) and count the fish. When I was a kid,
13 you could see little minnows swimming everywhere. You don't
14 even see one. It's a dead river. And unless this gravel is
15 removed...

16 I talked to Bob Lindahl (*phonetic*) from the State
17 Land Division, and I brought up to him about the issue of
18 the bridge damming the river up, and he said that that was
19 something that he was concerned about.

20 I brought it up to Tyler from the Army Corp of
21 Engineers and he said, "Well, that's not even an issue."

22 And I said, "Well, what do you mean?"

23 And he said, "Well, the river's going to get to the
24 ocean." He said, "When it dams up under the bridge, the
25 river will just go around it."

1 I mean, we deserve better than this. For people to
2 be against repairing the river -- and that's what I look at
3 it. I don't look at it like mining the river, but repairing
4 it. Anybody that is against this, should be ashamed of
5 themselves. If they can't go up there and see what it is, I
6 -- God help them.

7 I'll take questions.

8 VICE CHAIR ST. MARIE: Thank you, Mr. Adams.

9 The next speaker we have, and I'm not sure I'm going
10 to pronounce the name right, is Garcia Foskett?

11 GARTH FOSKETT: Garth Foskett.

12 VICE CHAIR ST. MARIE: I'm sorry?

13 GARTH FOSKETT: Garth.

14 VICE CHAIR ST. MARIE: Garth. I'm sorry.

15 GARTH FOSKETT: I'm Garth Foskett, I'm a resident of
16 Pistol River, and I live on Carpenterville Road.

17 And before I get to my concerns, of which I have very
18 many, I'd like to make a point here. Firstly, this is not a
19 river restoration project, this is a for profit business
20 venture. It has very little or nothing to do with helping
21 the river. The main objective is to make money selling
22 aggregate mined from the river. There's nothing wrong with
23 trying to make money, but I just want everyone to understand
24 that the focus of this operation is not fixing the river.

25 As stated in the original application, the purpose of

1 the permit is to extract rock from the river and sell it.
2 During the interview the applicant states that they will
3 work with the Fish and Wildlife to make improvements
4 whenever possible. This is totally up to the discretion of
5 the applicant and he is in no way bound or compelled to make
6 any improvements other than what he is required to do by the
7 various government agencies. Any recommendations or
8 suggestions made to the improvement are to be done whenever
9 possible. So, again, this is not about river restoration.

10 Now for my concerns. First and foremost, I'm
11 concerned about the general health of the river and its
12 ecosystems, the fish, wildlife, resident and migratory
13 birds. I have so many issues that I don't want to list them
14 all here because it would take so much time, but just note
15 that I have a lot of concerns about the environment.

16 Next to the environment, my main issue is noise.
17 Sound does travel further than 500 feet, and just because
18 there are no buildings within 500 feet, does not mean that
19 it's not going to disturb anybody. Since it's unknown what
20 type and quantities of equipment are to be used, no one
21 knows how much noise is going to be generated, so it's too
22 premature to say noise should not be an issue as it states
23 in the report.

24 My next concern is dust. Once again, we don't know
25 the scope of this operation, so it's too premature to say

1 dust is expected to be minimal.

2 My next concern is wear and tear on the
3 infrastructure from the heavily laden gravel trucks. How
4 many a day are going to be going across our roads? Where
5 are they going to be going? Nothing is defined in this.

6 Another concern is property values. I'm afraid that
7 property values are going to drop for anyone adjacent or
8 near due to the noise, dust, and general ugliness of this
9 operation. I believe that the beauty, serenity, and quality
10 of life for people in the valley will be destroyed forever
11 by this project.

12 This application is very incomplete. There are far
13 more questions than answers. The only information given by
14 the applicant concerning the project are his statements that
15 the impact of this project will be mostly positive, without
16 substantiating that, and that anything he will do will be an
17 improvement over the way it is now. These are
18 unsubstantiated statements and are not backed by any data,
19 stats, studies, or no proof of his expertise or
20 qualifications in this field.

21 Because there are no answers to our questions, no
22 data to back up any statements on the application, no filed
23 plans as far as I can see, I don't see how this application
24 can even be considered for approval.

25 I ask you to not approve this application.

1 Thank you.

2 RON ADAMS: May I respond to any of that?

3 VICE CHAIR ST. MARIE: When everybody gets through
4 then you'll have a chance to do that.

5 Thank you, Mr. Foskett.

6 Mark Sherwood.

7 MARK SHERWOOD: Thanks. Good to meet you. We're
8 neighbors.

9 I live in Pistol River, my name is Mark Sherwood, I
10 am the -- also the Executive Director of the nonprofit
11 Native Fish Society, which is an Oregon based group, and the
12 goal of my group is to revive abundant wild fish, free
13 flowing rivers, and thriving local communities. I love
14 Pistol River, I love fishing there and swimming there like
15 so many of us. I have a four month old son, so we just took
16 a picture on the bridge and can't wait to introduce him to
17 the river and its fish.

18 I'm going to summarize the longer comment that I
19 submitted earlier to the Director. And so, I guess I want
20 to start by just saying the proposed mining site is located
21 within Pistol River's 1.4 mile estuary. I don't know a ton
22 about this project, but that is definitely the case. So,
23 estuaries are incredibly important habitats for fish,
24 they're like the nurseries for fish, you can think of them
25 that way. There were marine and fresh water mixed with the

1 tides. And Pistol River's home to fall Chinook salmon, to
2 winter steelhead, to cutthroat. It's also, as the Planning
3 Director said, home to Endangered Species Act listed coho
4 salmon. These fish basically come and go from the ocean,
5 they feed the entire forest, all our trees, everything
6 that's in it, and our community members. They're extremely
7 important to people who live in Pistol River.

8 All these species I've mentioned use the estuary
9 extensively, and so this area of the river is highly
10 regulated from development by Oregon land use policies, by
11 Clean Water Act, by the Endangered Species Act, and is
12 designated as essential salmon habitat by the Department of
13 State Lands to basically govern removal and fill activities.

14 And so one of the reasons why estuaries are so
15 protected is, like I said, these fish use them all the time.
16 Salmon don't just zip through the estuaries, they actually
17 hang out there. So, for example, fall Chinook salmon,
18 they're coming down, the little juveniles are coming down
19 right now. Peak migration is June and July and August, and
20 they're going to have to just stay put in that lower 1.4
21 miles from now until the river reopens. It typically closes
22 off, it's called a blind estuary. And so they're just going
23 to be there. Whatever water quality is there that exists or
24 whatever food is available that exists, and so (*inaudible*)
25 contamination, anything that happens to that place during

1 the summer months would be terrible. Same thing for coho,
2 they spend up to a year in the lower river, Steelhead one to
3 three years, same thing with cutthroat they come and go. So
4 they spend a lot of time in this zone.

5 And so ultimately the success or failure of our adult
6 return from the ocean, it becomes completely dependent upon
7 whether or not the juveniles survive this stage of their
8 lives, when they're in the estuary for all this time. And
9 as a result, more recently gravel mining operations, which,
10 I mean, I've got gravel on my driveway, are not recommended
11 in estuarinaries, they're -- they've been moved to larger
12 rivers, they've been moved up slope, onto terraces. I'm
13 sure Mr. Freeman knows all about this. And into inactive
14 flood plains, out of the channel migration zone, so
15 basically where the river navigates, we've moved them out of
16 those places to protect places just like this estuary.

17 And this isn't just about fish hugging, although I
18 know that I'm probably guilty of that. Salmon -- salmon are
19 critical for local commercial and recreational fishing
20 economies. You know, Curry County derives an estimated 22
21 million dollars annually from recreational fisheries in our
22 county, and bird watching, and that kind of stuff happens in
23 Pistol River. Pistol River contributes to that.

24 Last, and I think this is maybe some of the source of
25 the (inaudible) in the room is, you know, what the Curry

1 County zoning ordinance requires before issuing a
2 conditional use permit. Totally understand this is the
3 place it starts, then you go always to the permitting, and
4 you come back here and finish the job. But it also, the
5 ordinance requires that plans and specifications that come
6 before the Planning Commission, you all, must contain
7 sufficient information to allow the Commission to review and
8 set siting standards to standards one through nine. And so
9 when I review Mr. Adams' application and the staff response,
10 particularly standards one, two, and three, which include
11 providing information on the impact of surrounding lands,
12 water quality, water flows, fish habitat, overall land
13 stability, vegetation, wildlife habitat, land and soil
14 erosion, it's clear this application doesn't really contain
15 sufficient information, it's incomplete on so many of those
16 issues.

17 Again, (inaudible) there's no empirical evidence to
18 talk about the current environmental conditions. There
19 weren't any studies referenced or undertaken to detail the
20 potential impacts of what's going to happen. There isn't
21 even really a discussion about when and how the gravel
22 extraction will occur. And so, and until just this
23 PowerPoint, the word "estuary" doesn't appear in any of this
24 stuff, and it's a central part of this land use decision.

25 Yeah, almost done.

1 And so, I guess -- I guess I would suggest that
2 perhaps the right thing to do would be to delay at this time
3 any sort of vote. I mean, I guess you could leave the
4 record open until later, but it really seems like the
5 applicant needs to have the opportunity, and probably not be
6 charged money for a permit at this stage, but really have
7 the opportunity to go and visit with all the other
8 permitting agencies, really get a picture of what it's going
9 to take to put in operation a gravel mining operation here,
10 and then decide if he wants to proceed. Because this is
11 going to be an extremely costly project.

12 All this being said -- and this is my last statement,
13 so thank you, I, you know, apologize for being long winded
14 -- appreciate your passion for the river, and Pistol River
15 could use help, and so I definitely volunteer myself, my
16 organization, the connections that we have, the scientific
17 resources, so on and so forth, the ability to get grant
18 funding, yada, yada, yada, to put together a plan that would
19 potentially result in some gravel and would actually provide
20 some significant uplift for fish.

21 So, with all that, I'll be quiet.

22 VICE CHAIR ST. MARIE: Can we do questions after each
23 speaker or should we wait until everybody speaks and then do
24 questions?

25 CHAIR FREEMAN: That's in your discretion, but I have

1 seen it done both ways. Me, personally, if I don't ask a
2 question, I lose it, so...

3 VICE CHAIR ST. MARIE: Okay. I'm going to back up to
4 Mr. Adams. Did any of the commissioners want to ask any
5 specific questions of Mr. Adams at this time or wait until
6 he speaks? He'll speak last again.

7 COMMISSIONER JENSEN: I'd like to hold my questions.

8 VICE CHAIR ST. MARIE: Okay.

9 COMMISSIONER JENSEN: But other people may.

10 RON ADAMS: I have pictures, I could show a picture
11 that would rebut most of what these people are saying with
12 one picture.

13 CHAIR FREEMAN: You just need to wait until your
14 time.

15 COMMISSIONER LANGE: I have a question for Mr.
16 Sherwood.

17 MARK SHERWOOD: Yes, sir.

18 COMMISSIONER LANGE: Let's say -- and I just want you
19 to kinda give me a hypothetical analysis if you would,
20 because definitely given your field of expertise, let's say
21 you could wake up tomorrow and have 10,000 cubic feet?

22 DIRECTOR CROCKETT: Cubic yards.

23 COMMISSIONER LANGE: Cubic yards of gravel removed
24 from that estuary, would that make that ecosystem better for
25 the fish? Would that be a more --

1 MARK SHERWOOD: Yeah.

2 COMMISSIONER LANGE: -- eco friendly estuary in your
3 opinion?

4 MARK SHERWOOD: Yeah. I -- I -- the river does have
5 a lot of sediment in it because of upland practices,
6 foraging practices, but I think going in and extracting it
7 out of that short little estuary is not -- it's not the
8 measure you would take.

9 COMMISSIONER LANGE: But it could benefit from less
10 gravel? That's what my question is.

11 MARK SHERWOOD: Yeah, sure, sure. And so I think
12 it's -- it's less about whether or not the river has
13 sediment issues, it's more about where -- like where you're
14 making those improvements and how you're making those
15 improvements.

16 COMMISSIONER LANGE: How is the process going to be
17 done.

18 MARK SHERWOOD: Yeah. And so -- and so I guess to be
19 really clear, though, I'm not saying that you should -- that
20 there's really a process to go in and physically remove the
21 gravel from the estuary and that would be it. What it would
22 involve would be actually changing the way the river runs
23 through the lower part of its -- of its flood plain,
24 creating more diversity. And then through these high water
25 events, it will move sediment out, and that's what builds

1 our beaches, that's -- I mean, there's definitely a role for
2 that sediment. But, yeah, the river -- the river is having
3 some difficulty processing it, and the fish habitat, that's
4 definitely -- you know, that's not as good as it could be.

5 So there are things that could be done, it's just
6 this particular location, not at all what I would --

7 COMMISSIONER LANGE: Okay. Thank you.

8 MARK SHERWOOD: Yeah.

9 VICE CHAIR ST. MARIE: Does any of the Commissioners
10 have any questions for Mr. Foskett?

11 *(No audible response)*

12 VICE CHAIR ST. MARIE: Moving ahead here, Ron
13 Plumlee.

14 RON PLUMLEE: Yes, ma'am.

15 Ron Plumlee, 24195 Carpenterville Road. We're right
16 there on the face of Pistol River. And if I may, I would
17 like to say that I am not ashamed of myself to Mr. Adams,
18 and I didn't come here to be disrespected by him.

19 Having said that, I don't think most or any of our
20 homes were there 16 years ago in 2003 when it was first
21 approved. And, also, I'm doing this just off the top of my
22 head, I had notes, but I'm not going to drag it out. In
23 2003, Pistol River Bridge was inspected and found to be
24 defective. It has not been repaired. That's something you
25 might want to check into. And there's going to be heavy

1 truck loads of gravel. They're not pickup loads, you all
2 have seen them, probably belly dumps, don't know for a fact,
3 but probably. A lot of weight, probably legal 80,000 on the
4 highway. That bridge, I don't know.

5 But having said that, we looked for two years to find
6 our place, our final nest. We're in our seventies and
7 that's where we're going to be. And it took us two years to
8 find it, and we walked upon that place and it took our
9 breath away, the natural beauty of Pistol River and gravel
10 beds are all part of it. We have herds of elk that come in
11 all across (*inaudible*) on our pasture and all up and down,
12 the geese come in, the wild turkeys are there with their
13 babies. It goes on and on. The wildlife is thick and wild
14 there. Lots of big deer. And, also, we go down there
15 because Pistol River is on the end of our property, we
16 legally own part of it, and we watch the salmon come in and
17 jump and swim and do their things, and a seal gets up there
18 once in a while and chases them, and we're cheering for the
19 salmon.

20 But, so this thing, we have a predominant wind from
21 the west to the east that flows up Pistol River valley, as I
22 call it. Any noise that is of any kind at all is going to
23 blow it right on us. We're going to hear it. You got rock
24 crushers out there, you got rock processing machines, you've
25 got backhoes, diggers, if anybody's seen a rock operation,

1 you know what you see. You know what's there. So your
2 realtor, if anybody there wanted to sell, brings the people
3 across the Pistol River Bridge, or they drop off of 101,
4 take a right on Carpenterville, boom, guess what they see?
5 Most likely, can't guarantee it, most likely they're going
6 to say, "Let's look at something else." I wouldn't have
7 bought there if that was there when I came to look at the
8 place. Why would I? We bought it for the quietness, the
9 peace, the pristine location. Ten thousand cubic yards or
10 whatever, it doesn't matter, it's going to destroy that. It
11 absolutely is.

12 And as far as improving the fish and the -- yes, I
13 love fish, my dad and I and family have been fishing
14 forever, but here's the thing, that's the Oregon Department
15 of Fish and Game and other entities to take care of that,
16 not somebody, private party, wanting to get the gravel, make
17 some money, while we lose value on our real estate. Tell me
18 it wouldn't reduce the price of our real estate and the
19 value of our homes. You know it would. And that's about
20 it. It's just, it's not something that we can live with,
21 and I don't think you would either.

22 If you haven't, please go out to Carpenterville Road,
23 along Pistol River where we are, I think all of you know
24 where it is, the bridge is here, come the loop, come off
25 101, turn right at Carpenterville, and that stretch, you

1 know what it's going to be all in there, where we're all
2 hidden in there. See what it looks like. See what we're
3 talking about firsthand, please do that before you make any
4 decisions. I think it will have some impact on you.

5 Thank you, very much.

6 VICE CHAIR ST. MARIE: Thank you.

7 COMMISSIONER LANGE: Thank you.

8 VICE CHAIR ST. MARIE: Is there any questions by any
9 Commissioners?

10 *(No audible response)*

11 VICE CHAIR ST. MARIE: Okay. Eleanor Foskett.

12 ELEANOR FOSKETT: So, first, I want to thank Becky
13 Crockett for making this an open hearing where our folks
14 from Pistol River could come and voice their opinions.

15 This is hard for me. I am a resident of Pistol
16 River. I live at 24922 Carpenterville Road. And the
17 residents of Pistol River are all part of a healthy,
18 thriving community, and as a community they are concerned
19 about the future of our valley and the impact that approval
20 of AD-1907 will have.

21 The Pistol River valley and river are beautiful gems
22 to be protected. They offer a scenic serene environment for
23 those who are lucky enough to live here and to visit and
24 enjoy recreational opportunities that are available. This
25 is the primary reason my husband and I have chosen this

1 location for our forever home. Unfortunately, approval of
2 this permit would place our home and property on what I call
3 ground zero, as our home is directly located between the two
4 described areas that mining would occur.

5 I am extremely opposed to the approval of this
6 permit. I see no value in having aggregate mining and
7 processing in the Pistol River. It will not serve to repair
8 the river as the applicant has stated. It is truly targeted
9 as a for profit aggregate mining and processing business.
10 This operation will result in serious disturbances eroding
11 our quality of life and our property values. It has the
12 serious potential to create more problems with the river
13 flow, erosion, and flooding as well as bringing about
14 environmental impact with the river, fish, and wildlife
15 presence there. I believe these impacts will be devastating
16 to our way of life and remain so for the future, so I simply
17 ask you to consider, is this really the legacy we want to
18 put forward for the future of Pistol River? I certainly do
19 not.

20 I would also like to ask at this time and make a
21 request that this hearing remain open. Many people wanted
22 to come, were unable to come because they were not notified.
23 There were six residents that were notified about this
24 happening. I sent over 90 letters out to residents in the
25 last week to try to alert them. I made phone calls, I sent

1 emails, I posted things on Facebook to try to get people
2 here. It's vacation time, a lot of people aren't here. You
3 did get a lot of things through the mail.

4 DIRECTOR CROCKETT: Yes.

5 ELEANOR FOSKETT: You got information from a couple
6 of agencies. But I do request that this remain open.

7 VICE CHAIR ST. MARIE: Thank you.

8 ELEANOR FOSKETT: You're welcome.

9 VICE CHAIR ST. MARIE: Mr. Adams, would you like to
10 speak to any of the comments that have been made?

11 RON ADAMS: Absolutely.

12 The first one on this thing about that I'm in it for
13 profit, I'm not a gravel company.

14 GARTH FOSKETT: Excuse me, he's not supposed to be
15 speaking directly to me is he?

16 VICE CHAIR ST. MARIE: To me.

17 RON ADAMS: I'm not a gravel company. I bought 50
18 acres three miles up Pistol River and I'm building a retreat
19 up there, and my intention is to bring young people out of
20 the cities over here and show them there's another way of
21 life and show them about the fish, show them about the
22 cattle. And the idea that you, if you're going to have fish
23 in the river, you can't have anything else but fish is
24 ridiculous. But, and as far as the valuation of the
25 properties and things go, how valuable are their properties

1 going to be when they can't get to their homes because the
2 road -- right now the river is 50 feet from the
3 Carpenterville Road, and the first big storm we have this
4 next year, they're not going to be able to go up
5 Carpenterville Road. And when the water can't get under the
6 bridge and it goes around and it takes out the Pistol River
7 loop road. I mean, people need to really think about this.
8 No action is not an action. You either have to...

9 And as far as the legacy goes, I've got 40 years into
10 this, and I've watched these agencies try to do this and try
11 to do that and the fish go downhill all the time. I was
12 told by Fish and Wildlife that I need to say exactly where
13 I'm going to take the gravel. I can take the gravel and not
14 even get into it with anybody. This last storm up there,
15 there's three feet of gravel on my pasture. I can take this
16 gravel, I don't need any permit from anybody, it's in my
17 field. But I specifically didn't put this down because I
18 want to work with the agencies. The fish do have to stay in
19 the estuary, but if they stay there, they're dead. The bay
20 has never been filled with sand and gravel now and it's --
21 it's filled.

22 Elaine Pomeraine (*phonetic*), her property is being
23 washed away, my property's being washed away, Crook's
24 property is being washed away. There's big clods of dirt in
25 the riverbed, and they're worried about a little bit of dirt

1 getting in the river when the river's filled with it.
2 There's no place -- right now there is -- I don't know if
3 anybody's even been down there to look at it, but this is
4 what the river looks like right now.

5 VICE CHAIR ST. MARIE: About one more minute, can
6 we --

7 RON ADAMS: Okay. But this is what it looks like.
8 Now, where are the fish going to -- how are the fish going
9 to survive there? Is that the legacy you want to leave
10 behind?

11 VICE CHAIR ST. MARIE: Does anybody have any comments
12 for Mr. -- or questions for Mr. Adams?

13 RON ADAMS: And if I was in it for the profit, I'd
14 have my money and be gone a long time ago.

15 VICE CHAIR ST. MARIE: Any questions for Mr. Adams?

16 COMMISSIONER LANGE: No.

17 RON ADAMS: I want to say one more thing. I talked
18 to Bob Lindahl (*phonetic*), and he said for me to, when I
19 talk to you folks, to tell you that I understand that this
20 is a first step and that I need to work with these other
21 agencies. And he said to ask you guys to go ahead and
22 approve this so that we can go ahead and get the other
23 permits going and processed. And I do want to work with the
24 other agencies, because I want to provide habitat for the
25 fish down there.

1 COMMISSIONER LANGE: Mr. Adams, I do have a question
2 for you. When did you first decide that you wanted to mine
3 the gravel out of this area?

4 RON ADAMS: I don't know that I ever really decided
5 that I was going to mine the gravel out of it.

6 COMMISSIONER LANGE: Well, at one time you applied to
7 have this done, I mean, when did you decide that you
8 were --

9 RON ADAMS: Well, I finally just came up with,
10 somebody has to do something because the bridge is going to
11 be dammed up.

12 COMMISSIONER LANGE: And how long ago was this that
13 you thought to yourself, "I think I'm going to go down to
14 county and I'm going to apply to have this done?"

15 RON ADAMS: I don't know, maybe -- maybe a month ago.
16 But the county, they -- the State came in there and they
17 tried to protect the county road. That all washed away and
18 all the rocks and stuff that they put in there washed out
19 into the middle of the river. Now, that helped to raise a
20 -- there's 12 feet of clearance right now for the water to
21 go through under that bridge.

22 COMMISSIONER LANGE: I understand, sir. Thank you.
23 Thank you, I appreciate that.

24 VICE CHAIR ST. MARIE: That's all --

25 UNIDENTIFIED MALE: Bod Lindahl (*phonetic*) is with

1 the Department of State Lands.

2 VICE CHAIR ST. MARIE: That's all of the forms I have
3 for people that wanted to speak about the project.

4 GARTH FOSKETT: Can I say something else, too, or
5 not?

6 VICE CHAIR ST. MARIE: Quickly.

7 GARTH FOSKETT: Quickly. I just want to know what
8 Mr. Adams' expertise is in this area that he knows all this
9 information that what he is going to do is going to fix the
10 river.

11 VICE CHAIR ST. MARIE: Okay.

12 COMMISSIONER LANGE: We'll address that.

13 GARTH FOSKETT: Excuse me?

14 COMMISSIONER LANGE: We will address that.

15 COMMISSIONER JENSEN: Madame Chair, is this the time
16 to ask a question of the Planning Director?

17 VICE CHAIR ST. MARIE: Sure.

18 COMMISSIONER JENSEN: Okay. What other agencies
19 would be involved in this process given some of the
20 environmental issues that have been raised?

21 DIRECTOR CROCKETT: The slide that I put up at the
22 very beginning of our discussion on the two gravel
23 operations or two rock operations indicated the list of
24 agencies. For in-river extraction, typically what happens
25 is the Corp of Engineers becomes the federal lead agency.

1 They would tie into on the state level, the Division of
2 State Lands that would coordinate the state agency permit
3 and comments. At the federal level, you would have
4 coordination with (*inaudible*) Fishery Service in regards to
5 the Endangered Species Act and threatening endangered
6 species that might be there. On the state side it would be
7 DOGAMI, it's the Oregon Department of Fish & Wildlife, it's
8 DEQ with storm water quality, Clean Water Act issues, they
9 carry out those. I think that, off the top of my head,
10 that's what I --

11 COMMISSIONER JENSEN: That's pretty good.

12 VICE CHAIR ST. MARIE: (*inaudible*) you got the Corp
13 of Engineers.

14 DIRECTOR CROCKETT: The Corp would be the lead
15 agency.

16 COMMISSIONER JENSEN: Well done. I just got tired.

17 DIRECTOR CROCKETT: Yeah, it is an ominous process,
18 it really is.

19 COMMISSIONER JENSEN: I hear that. That was why I
20 asked that question, I thought it was. Okay. Thank you.

21 VICE CHAIR ST. MARIE: So now we can address the
22 decision we have to make?

23 COUNSEL HUTTL: You've actually had two requests to
24 continue the matter, so once those requests are made, you
25 can't actually decide on the application.

1 VICE CHAIR ST. MARIE: No, I didn't mean to decide on
2 the application.

3 COUNSEL HUTTL: Oh, thank you. All right.

4 VICE CHAIR ST. MARIE: Just to continue the hearing
5 or close the hearing and take --

6 COUNSEL HUTTL: Thank you.

7 COMMISSIONER LANGE: So, Madame Vice Chair, I move
8 that we continue the hearing to July 18th and leave the
9 record open for applicant and others to provide details on
10 the application.

11 COMMISSIONER JENSEN: Second.

12 VICE CHAIR ST. MARIE: Do you want to call for a
13 vote?

14 COMMISSIONER JENSEN: Do you want me to do that?

15 CHAIR FREEMAN: No, Nancy.

16 COMMISSIONER LANGE: Oh, Nancy.

17 COMMISSIONER JENSEN: Okay.

18 NANCY CHESTER: Jensen?

19 COMMISSIONER JENSEN: Yes.

20 NANCY CHESTER: Lange.

21 COMMISSIONER LANGE: Yes.

22 NANCY CHESTER: Dewald?

23 COMMISSIONER DEWALD: No.

24 NANCY CHESTER: St. Marie?

25 VICE CHAIR ST. MARIE: No.

1 I would be in favor of closing the hearing and
2 leaving the record open for seven days.

3 COMMISSIONER DEWALD: And I will second that.

4 COMMISSIONER LANGE: If I may, the reason that I'm
5 asking for it to be left open is -- is for both sides of
6 this debate. First of all, I don't believe Mr. Adams has
7 really brought a complete game plan to the -- to present to
8 us. As we saw in the previous hearing, we know how many
9 trucks, we know how much they're going to weigh, we know how
10 frequent they're going to be, we know the time frame, how
11 it's going to be repaired and what's going to happen
12 beforehand, during and afterward. We have no sense of this
13 here. So, this is as much for your benefit as it is for
14 theirs.

15 And then on the other side of the coin, we allow for
16 those who would like to voice in contradiction to this.
17 What I would like to see is I would like to see where people
18 live. And PowerPoint's a super easy program, and we've got
19 the ability right here, bring in a picture where your house
20 is on a map so I can see that and how that would affect you.
21 But that's -- that's the reason why I vote to keep this
22 open.

23 RON ADAMS: I have a picture that shows that the
24 river is 50 feet from the road and --

25 COMMISSIONER LANGE: I understand that, sir, but I'm

1 not -- what I'm asking for is I want specifics on what size
2 trucks, how much are you going to do, what size equipment
3 you're going to have down there so we can make this
4 qualified decision to come in with this -- with this request
5 that's -- we're trying to put a -- we're trying to put a
6 saddle on a yearling here, and even younger than that, you
7 know, a newborn, and to me I don't think that we have all
8 the information we need to make a qualified decision.

9 RON ADAMS: And you won't have all the information,
10 because it's like Bob Lindahl (*phonetic*) said, this is the
11 first step. And I want to do this to be a clean water deal,
12 but I'm not going to take trucks in there and start trucking
13 out in the middle of the river. I don't need to go into the
14 river. But I would like to get these other agencies
15 involved. The river's dying. It's literally dying.

16 COMMISSIONER LANGE: Can he move forward with the
17 other agencies if we still -- if we're still open?

18 DIRECTOR CROCKETT: He can have discussions with
19 them, yeah, absolutely.

20 The prior application that you had, in that case --
21 well, maybe I shouldn't show this because it is -- I mean,
22 this is at the highland professional level, but this was the
23 application that has already been presented to all of the
24 agencies for the Edson Creek mine, recognizing that he can't
25 sign the actual permit forms to submit until they have the

1 county sign off. So, they've gone ahead and coordinated and
2 prepared the studies and information already. Yeah, you can
3 go ahead and do that, and, in fact, that's typically what
4 happens.

5 Otherwise, you had a situation, if the county does
6 approve it, if the Planning Commission decides to let Mr.
7 Adams go ahead, which is certainly an option, in order to
8 get through that regulatory process to do in-river gravel
9 extraction, I would estimate it would take another year to
10 work with those agencies before they would -- Ted's saying
11 two years. I've seen it go as long as two and three years
12 and it's -- you know, that's just the reality of how
13 sensitive this issue is to those people that are involved in
14 dealing with the environmental permit. The good thing is,
15 sometimes you go through that two year process and it is
16 like Mr. Adams says, that there's a benefit in getting some
17 of that gravel out as far as the benefit to fish, that's
18 these alcove gravel removal projects that have been used.
19 So, it's a long process and that's why in one of the
20 conditions it says that if you do go ahead that it's got to
21 be at least a three year approval because it could take that
22 long before it actually happens.

23 COMMISSIONER LANGE: And we have to give an approval
24 at the end anyway.

25 DIRECTOR CROCKETT: That's right. And I would do

1 that administratively. I would do that for you and report
2 back, of course. But, yeah, that's -- that's the process.

3 VICE CHAIR ST. MARIE: So where are we now, Nancy?

4 COUNSEL HUTTL: The motion failed, so you have no --
5 you're still at the point of needing to make a decision
6 whether you're going to close the hearing and leave the
7 record open or continue the hearing.

8 NANCY CHESTER: Which was your motion seconded by
9 DeWald.

10 VICE CHAIR ST. MARIE: Okay. Any other discussion on
11 the --

12 NANCY CHESTER: Closing the hearing.

13 VICE CHAIR ST. MARIE: -- closing the hearing and
14 leaving the record open?

15 COMMISSIONER JENSEN: It was your motion originally
16 to do the continuance.

17 COMMISSIONER LANGE: Mmm-hmm.

18 COMMISSIONER JENSEN: What's your thoughts?

19 COMMISSIONER LANGE: Do you want me to re-motion?

20 COMMISSIONER JENSEN: You're in the same place.

21 COUNSEL HUTTL: Did you make a motion to close the
22 hearing or you were entertaining a motion?

23 VICE CHAIR ST. MARIE: I thought we made a motion to
24 close the hearing and keep it open for seven days for
25 comments.

1 *(inaudible - talking over each other)*

2 COMMISSIONER LANGE: I was the first one to motion
3 and I motioned to keep it open, to continue the hearing
4 until July 18th.

5 COUNSEL HUTTL: But that was voted on and it did not
6 pass, so then a second motion was made, I believe. And that
7 needs -- the second motion needs to be voted on.

8 COMMISSIONER LANGE: Needs to be voted on.

9 COMMISSIONER JENSEN: I thought we voted on that.

10 COMMISSIONER DEWALD: No. And that's what I was
11 referring to.

12 COMMISSIONER JENSEN: Oh, okay.

13 COUNSEL HUTTL: So did you take -- you didn't take a
14 vote on the second motion, right?

15 NANCY CHESTER: I haven't? There's been discussion.

16 COUNSEL HUTTL: I don't think it's been seconded yet.

17 COMMISSIONER DEWALD: Yes.

18 VICE CHAIR ST. MARIE: Yes, it has been.

19 COUNSEL HUTTL: Oh, it has been?

20 VICE CHAIR ST. MARIE: Yeah.

21 COUNSEL HUTTL: All right.

22 VICE CHAIR ST. MARIE: Any discussions?

23 COMMISSIONER LANGE: I'm done.

24 NANCY CHESTER: Jensen.

25 COMMISSIONER JENSEN: No.

1 NANCY CHESTER: Lange.
2 COMMISSIONER LANGE: No.
3 NANCY CHESTER: Dewald.
4 COMMISSIONER DEWALD: Yes.
5 NANCY CHESTER: St. Marie.
6 VICE CHAIR ST. MARIE: Yes.
7 NANCY CHESTER: Same thing, two/two.
8 COMMISSIONER LANGE: Could I hear argument as to why
9 you would like to close -- close the hearing and, but leave
10 it open for seven days? Can I hear -- pitch it to me.
11 COMMISSIONER DEWALD: I'm just going to verify that
12 there was a public hearing notice sent out 20 days ago.
13 NANCY CHESTER: That's correct. That's correct.
14 COMMISSIONER DEWALD: And my feeling is that there
15 are going to be other governing agencies that are going to
16 weigh very heavily in on this project, very heavily. I
17 understand that the difference here we have one very
18 professional presentation and one in which it's a private
19 landowner that wants to go forth and has already spoken with
20 people at the state level and said, look, this is the first
21 step, take that step and then let us weigh in on that
22 project. Because, frankly, he's going to have to jump
23 through a lot of hoops before it comes back to us. It's not
24 going to be easy and it's not going to be a small process or
25 a slow process to be able to do that. And I'm going to rely

1 upon those governing agencies that are well above us to see
2 what they're -- how they weigh in on a project before I make
3 my final decision. That's a given on that right there. So
4 that's where I'm at on it.

5 And I really don't see, to keep it open for another
6 month where people will still have the ability to be able to
7 provide input to us that that will satisfy any other
8 comments that we may receive regarding this project.

9 COMMISSIONER LANGE: And just to be clear, and full
10 transparency for everybody out here, this is only my second
11 committee meeting, okay, so... You're not -- you're the
12 senior person now.

13 COMMISSIONER JENSEN: No, this is my second meeting
14 as well.

15 COMMISSIONER LANGE: But, um...

16 COMMISSIONER JENSEN: But I -- just for me, I err on
17 the side of people having an opportunity to weigh in. So
18 that's -- that's just a --

19 VICE CHAIR ST. MARIE: I feel that allowing --
20 allowing comments to come in for seven more days gives these
21 people additional time to get something in writing in on the
22 record.

23 COMMISSIONER JENSEN: Yeah, I hear that.

24 COMMISSIONER LANGE: I understand that, too, and I
25 know that it's been public -- I know that it's been public

1 knowledge for 20 days, but 20 days is, what, four papers? I
2 mean, it's not like we get a -- it's not like in urban areas
3 where you get a daily paper every day. And probably most
4 people aren't seeing anything on social media, and I don't
5 even think it gets on social media, does it?

6 DIRECTOR CROCKETT: No. Not unless --

7 COMMISSIONER LANGE: So it's only print.

8 COMMISSIONER JENSEN: Well, and I said the same thing
9 with the prior issue, is the noticing is so problematic
10 here, you know, just because you're just -- if you happen to
11 be in the right place at the right time, you might see it
12 and you might not. And it's no -- it's not a criticism of
13 the county at all, it's just the nature of where we live and
14 the inability to know what's going on.

15 COMMISSIONER LANGE: Can they still --

16 RON ADAMS: *(inaudible)* seconds, it's just a point
17 that you might want to give, not about the river, but --
18 well, it is.

19 COMMISSIONER DEWALD: Is that just your discretion?
20 I don't know.

21 VICE CHAIR ST. MARIE: Is that up to my discretion
22 or...

23 COUNSEL HUTTL: Technically we're still in the public
24 hearing and technically you're deciding whether to close the
25 public hearing or to continue it. So, technically, you

1 could allow people to talk still. It's your discretion
2 what's the will of the Planning Commission, whether you
3 really need -- the question is, do you need to hear from
4 anyone whether to keep the record open or to close the
5 record, or keep the public hearing open or close the public
6 hearing.

7 VICE CHAIR ST. MARIE: What's the Commissioners'
8 thoughts?

9 COMMISSIONER LANGE: Um...

10 VICE CHAIR ST. MARIE: Can I ask a very specific
11 question with regard to closing the hearing versus leaving
12 it open?

13 COMMISSIONER JENSEN: That's what we're debating
14 here.

15 COMMISSIONER LANGE: I think what -- I think what
16 we're getting is, we're getting at the point where you
17 people have to trust the system, and there are -- I
18 understand, I understand, but if -- and, you know, this man
19 has to climb Mt. Everest without an oxygen tank, okay? And
20 it still comes back here.

21 COMMISSIONER JENSEN: Right.

22 COMMISSIONER LANGE: Is what you're telling me. It
23 still comes back here. But they can present for the next
24 week.

25 COMMISSIONER DEWALD: Correct.

1 COMMISSIONER LANGE: Okay.

2 COMMISSIONER DEWALD: And it only comes back to us
3 after he's met the requirements of all those other governing
4 agencies.

5 DIRECTOR CROCKETT: That's correct.

6 COMMISSIONER DEWALD: So if he doesn't -- if he's not
7 able to meet what DEQ or somebody else has done, and I
8 believe -- is that one of the reasons why the last permit --

9 DIRECTOR CROCKETT: That's correct.

10 COMMISSIONER DEWALD: Okay.

11 DIRECTOR CROCKETT: They were not able to meet the
12 requirements.

13 COMMISSIONER DEWALD: It will go no further.

14 COMMISSIONER LANGE: Okay. So, if that's the case,
15 and I know that there hasn't been time and you just found
16 out about it, but I know that you can get a lot of research
17 done, and two weeks is better than one, I motion that we
18 close the hearing and leave the record open for 14 days.

19 COMMISSIONER JENSEN: Before you -- can I ask a
20 question of County Counsel at this point? So what happens
21 when you have a tie?

22 COUNSEL HUTTL: You have no action.

23 COMMISSIONER JENSEN: Right. Okay. That's the end
24 result? Then where does it go from there?

25 DIRECTOR CROCKETT: You sit here 'til midnight.

1 COUNSEL HUTTL: Yeah.

2 COMMISSIONER JENSEN: Do we get dinner?

3 *(Laughing)*

4 COMMISSIONER LANGE: Is it effectively denied then?

5 COUNSEL HUTTL: It's -- it's not -- it doesn't pass,
6 so it's no action, so there's no -- so a tie vote is a no
7 decision and, therefore, you just don't have any decision
8 and you're back where you started before the motion, which
9 was the public hearing and deciding whether you're going to
10 close it or whether you're going to --

11 COMMISSIONER DEWALD: So, does it get agendized
12 again? Does it just --

13 COUNSEL HUTTL: What?

14 COMMISSIONER DEWALD: I mean, does it come back or
15 does it take a proactive act for it to come back in front of
16 the Planning Commission? Does it just die?

17 COUNSEL HUTTL: Does what just die?

18 COMMISSIONER LANGE: Does what die?

19 COUNSEL HUTTL: No, we don't -- we just stay here.

20 COMMISSIONER LANGE: We stay here until --

21 COMMISSIONER DEWALD: So we literally -- you weren't
22 kidding.

23 COUNSEL HUTTL: You may -- you may die.

24 COMMISSIONER DEWALD: I might --

25 *(Laughing)*

1 COUNSEL HUTTL: No, sorry. That was -- ouch, I --
2 that was -- I didn't mean you, I just -- someone --
3 COMMISSIONER JENSEN: I know. I know.
4 COUNSEL HUTTL: -- someone in this room, maybe me.
5 COMMISSIONER LANGE: There's a motion on the table.
6 VICE CHAIR ST. MARIE: And I -- and I --
7 COMMISSIONER LANGE: There's a motion on the table to
8 close the meeting --
9 COMMISSIONER DEWALD: Closing the hearing.
10 COMMISSIONER LANGE: -- and but yet keep it open for
11 14 days to leave the record open for 14 days.
12 COMMISSIONER DEWALD: And I am willing to compromise
13 and second that.
14 COMMISSIONER JENSEN: Instead of seven, 14?
15 COMMISSIONER DEWALD: Right. Yes.
16 COMMISSIONER JENSEN: I'll agree with that.
17 VICE CHAIR ST. MARIE: I would agree with that.
18 COMMISSIONER LANGE: Should we take a vote?
19 NANCY CHESTER: Jensen?
20 COMMISSIONER JENSEN: Yes.
21 NANCY CHESTER: Lange?
22 COMMISSIONER LANGE: Yes.
23 NANCY CHESTER: Dewald?
24 COMMISSIONER DEWALD: Yes.
25 NANCY CHESTER: St. Marie?

1 VICE CHAIR ST. MARIE: Yes.

2 NANCY CHESTER: Passed.

3 COUNSEL HUTTL: And so same thing, what will happen

4 is, the comments will come into staff, staff will assimilate

5 them and then deliver them to you with a report, and the

6 next thing you do will just be to deliberate on the decision

7 on the application. There won't be an opportunity for

8 people to address you verbally. Anything you get from

9 anyone will be in writing.

10 COMMISSIONER DEWALD: Understand.

11 COMMISSIONER LANGE: Okay.

12 *(End of AD-1907 portion of hearing)*

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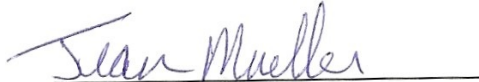
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CERTIFICATE

I, Jean Mueller, do hereby certify that I transcribed the audio of the above meeting; that I thereafter had reduced by typewriting the foregoing transcript; and that the foregoing transcript constitutes a full, true, and accurate record of the meeting.

Dated: November 8, 2019.


Jean Mueller

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PARTIAL TRANSCRIPT OF
CURRY COUNTY PLANNING COMMISSION MEETING

(July 25, 2019)

(Re: AD-1907)

Coleman Reporters
540 H Street
Crescent City, CA 95531
(707) 464-6465
office@colemanreporters.com

1 CHAIR FREEMAN: Okay, moving on to discussing the
2 decision on AD-1907, Adams conditional use for Pistol River
3 gravel extraction. I'm ex parte, so I will not. Diana
4 will take over for me.

5 VICE CHAIR ST. MARIE: I'm going to need a little
6 guidance through this, 'cause it's kinda --

7 DIRECTOR CROCKETT: We're ready. We're ready. I'll
8 give the staff report, a brief staff report.

9 This application, it's application AD-1907, it was
10 submitted by Ronald Adams, who is the owner of the property.
11 It's a request for conditional use approval by the Planning
12 Commission for the mining and processing of aggregate on the
13 Pistol River. It's in the forestry grazing zone. His
14 request was an estimated 10,000 cubic yards of gravel taken
15 off some area on his property. At the hearing he did not
16 specify where and how that gravel would be extracted. And
17 the application, you guys reviewed last time.

18 Essentially what occurred at the last meeting is
19 there was a public hearing, the Planning Commission closed
20 the public hearing at the end of the hearing -- at the end
21 of the meeting last time, and made a decision to leave the
22 record open for 14 days for people to submit additional
23 comments in regards to his application. That also gave the
24 applicant the opportunity, after people submitted their
25 comments, to respond to the comments that were submitted,

1 and he had seven days to do that. And he did present
2 additional comments.

3 Essentially what happened was, when the applicant
4 looked at the comments that were submitted by the public,
5 the applicant made a decision to submit some responses to
6 those comments to try to clarify his proposed application.
7 In the process of submitting those additional comments, he
8 put new information into the record. And according to
9 Oregon Revised Statute, the conduct of local quasi-judicial
10 land use hearings, notice requirements, hearing procedures,
11 because there was new information presented by the
12 applicant, there's the question for the Planning Commission
13 to re-open the record to allow people that are interested in
14 commenting on that new information to respond to that new
15 information submitted by the applicant.

16 Legal counsel is here tonight to make sure that we
17 proceed with the proper process. You guys did receive a
18 memo in the record as an attachment to the staff report from
19 the Assistant County Counsel, Shala Kudlac, and she's made a
20 suggestion -- suggested motion to the Planning Commission
21 based on the request from people to continue to open the
22 record or have the record opened again, she's suggesting
23 that that might be an appropriate thing for the Planning
24 Commission to do.

25 There have been some questions by members of the

1 Planning Commission on what was the new information
2 submitted by the applicant. In the case of AD-1907, Mr.
3 Adams specified his method of operation which was to
4 essentially take gravel off the gravel bar by scalping the
5 bar, and that was new information that wasn't presented at
6 the hearing or within the application.

7 So with that, I'll let you guys deliberate, or ask
8 more questions of legal counsel.

9 COUNTY COUNSEL: Could I just offer something? So,
10 bottom line is, we're not -- the Commission is not in a
11 position to decide whether to grant the application to
12 remove gravel.

13 The statutes, and you heard the Planning Director
14 give that procedural explanation at the beginning, and we're
15 in the section of that procedure where the hearing is
16 closed, the record was left open, and to present new and
17 additional information, new information, scalping, has come
18 in, so now because of the new information, the law says that
19 persons can now comment on that new information. And the
20 question then for the Planning Commission is, it says you
21 have to re-open the record. And then the question will be,
22 how long do you want to re-open the record? I think in one
23 case we had a request for seven days, another case we had a
24 request for 14, but really it's up to the Planning
25 Commission to decide how much time they are going to give to

1 -- (inaudible) to leave the record open for responses only
2 to the new information.

3 So what we're in is a kind of a narrowing down
4 process of issues. It's kind of a issue narrowing. We
5 started out with a lot of issues, we got some new
6 information, now the questions should only relate to the new
7 information.

8 COMMISSIONER LANGE: Counsel, can I ask a question of
9 you?

10 COUNTY COUNSEL: Yeah, of course.

11 COMMISSIONER LANGE: Is it unusual just to open it to
12 the next planned Planning Commission meeting, which would be
13 the following month when we hear the other, or is this
14 something that is typically -- I mean...

15 COUNTY COUNSEL: A couple of things. So, as far as
16 when you will consider this again, that's slightly different
17 for how much time you're going to give people to respond.

18 COMMISSIONER LANGE: Mmm-hmm.

19 COUNTY COUNSEL: What my suggestion is, is you -- you
20 -- if your desire is to deliberate and make a decision on
21 all the information, it would be to give enough time for
22 people to comment on this new information. And technically
23 if you -- let's say, for instance, I'll just use for
24 instance, if you gave the public seven additional days to
25 comment now on this new information from the applicant, the

1 scalping procedure, et cetera -- and I know we're using
2 shorthand, if I'm not mistaken, the actual document is
3 posted on our website --

4 DIRECTOR CROCKETT: That's correct.

5 COUNTY COUNSEL: -- so if anyone wants to actually
6 know what the new information was, it's actually on the
7 website. So then the question is, they would have that,
8 that you would set the time for anyone to make comments on
9 the new information, and then after that time, the law says
10 the applicant gets at least seven days to respond, so that's
11 14 days if you go seven and seven. And then the general
12 idea after that is staff will synthesize from the very
13 beginning all the way through to the end of that time and
14 present a staff report to you. And I think your question
15 would be of staff, if we did seven days and the applicant
16 had seven days, would you have time to synthesize this and
17 bring it back to us at the next meeting.

18 COMMISSIONER LANGE: That's exactly right.

19 COUNTY COUNSEL: So that's a question, I think, for
20 the Director.

21 But, yes, if you wanted to -- if your goal was to
22 decide this at the next meeting, then I think making a
23 motion to leave the record open for an additional seven days
24 to respond to new evidence, then by law the applicant would
25 get seven days to respond to that, so... And, also, the

1 applicant could respond within that time if there was
2 questions that they wanted to answer or new questions come
3 up.

4 So, then it flips back to Becky Crockett and her
5 staff if they could assimilate all of this before your next
6 meeting given those time frames.

7 DIRECTOR CROCKETT: Yeah. If we give -- if you leave
8 the record open or open it again for seven days, that
9 essentially will give me about four work days to turn it
10 back around and give you a staff report.

11 COMMISSIONER LANGE: And the only questions that we
12 can ask tonight of either staff or counsel is pertaining to
13 executing the process, has nothing to do with asking
14 questions, I guess, about -- or we're not going to hear any
15 comments about the file or the case?

16 COUNTY COUNSEL: Thank you. If I could, there were -
17 - there were some questions presented to me by email, and
18 they involved what about, you know, what about these
19 conditions that an agency will approve this later? What if
20 -- you know, there were -- there were some hypotheticals --
21 what if we find that they haven't complied with the
22 conditions? How do we enforce this? Those kind of things.
23 My response to that email was really the timing of answering
24 those questions is prior to your deliberations. Those
25 questions go to more or less the ultimate decision, and

1 right now we're just into how much time are we going to
2 leave the record open for people to respond to this new
3 evidence?

4 Once everything comes in, the Director will create a
5 comprehensive staff report, I will review the file for legal
6 issues, including those kind of questions, write out a
7 memorandum, that will be a *(inaudible due to microphone*
8 *noise)* that will be *(inaudible due to microphone noise)*.
9 And then at that *(inaudible due to microphone noise)* you
10 will have every opportunity to ask staff, including counsel,
11 all of the questions you have on all those points.

12 So that's -- that's, I think, kind of a nutshell. I
13 don't think we'd be making the best spending of our time to
14 just answer a few questions now and probably go over it all
15 again later.

16 Did that answer your question?

17 COMMISSIONER LANGE: Absolutely.

18 COUNTY COUNSEL: Okay. Thank you.

19 COMMISSIONER LANGE: Absolutely. So I'm going to
20 present to my fellow Commissioners, Madame Co-Chair, I move
21 that we re-open for seven more days of public comments
22 regarding the new findings, evidence, whatever you want to
23 call it.

24 COUNTY COUNSEL: New evidence, yeah.

25 COMMISSIONER LANGE: And then an additional seven

1 days for then the -- for Mr. Adams to reply to that.

2 COMMISSIONER DEWALD: I second that.

3 NANCY O'DWYER: Okay. So then that was --
4 Commissioner Jensen?

5 COMMISSIONER JENSEN: Aye.

6 NANCY O'DWYER: Commissioner Lange?

7 COMMISSIONER LANGE: Yes.

8 NANCY O'DWYER: Commissioner Dewald?

9 COMMISSIONER DEWALD: Yes.

10 NANCY O'DWYER: Commissioner St. Marie?

11 VICE CHAIR ST. MARIE: Yes.

12 *(inaudible)*

13 COUNTY COUNSEL: So, if I could, people who are here
14 about the Pistol River application, for lack of a better
15 word, there was new information submitted, it's on the
16 County's website, and if you want to comment on the new
17 information, you have seven days to submit additional
18 comments to the Planning Director.

19 AUDIENCE MEMBER: Seven working or seven calendar?

20 COUNTY COUNSEL: Thank you. I believe it's calendar.
21 That's a good question if anyone wanted to know, but it's --
22 it just mentions calendar days.

23 AUDIENCE MEMBER: Thank you.

24 DIRECTOR CROCKETT: Yeah, and the website, to get to
25 the website, you just have to type in, if you're a Google

1 user, just type in Curry County Planning Commission. That's
2 where it's at. It's not under Planning Department, it's
3 Planning Commission, because it's the Planning Commission
4 that's responsible for making a decision.

5 COUNTY COUNSEL: Do you have a phone number people
6 could call in case they get stuck at all?

7 DIRECTOR CROCKETT: What's your phone number, Nancy?

8 *(Laughing)*

9 NANCY O'DWYER: It would be 541-247-3284.

10 COUNTY COUNSEL: The comments do have to be in
11 writing, so just telling her, it's just to help you navigate
12 and get to the website.

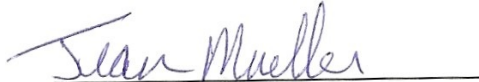
13 So, unless there's any questions, I really don't
14 think we're going to be discussing the Pistol River
15 application anymore.

16 *(End of AD-1907 portion of hearing)*

CERTIFICATE

I, Jean Mueller, do hereby certify that I transcribed the audio of the above meeting; that I thereafter had reduced by typewriting the foregoing transcript; and that the foregoing transcript constitutes a full, true, and accurate record of the meeting.

Dated: November 8, 2019.


Jean Mueller

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PARTIAL TRANSCRIPT OF
CURRY COUNTY PLANNING COMMISSION MEETING

(August 15, 2019)

(Re: AD-1907)

Coleman Reporters
540 H Street
Crescent City, CA 95531
(707) 464-6465
office@colemanreporters.com

1 CHAIR FREEMAN: Okay, we've discussed a decision on
2 AD-1907, Adams conditional use for Pistol River gravel
3 extraction. I'm going to excuse myself because of ex parte
4 contact. Becky, would you please explain where we are with
5 this, please?

6 DIRECTOR CROCKETT: Absolutely. Absolutely.

7 So, this -- this proposal was heard on June 20th by
8 the Planning Commission, that was a public hearing at that
9 time. The Planning Commission received several pieces of
10 testimony from the public and from the applicant. At the
11 end of the public hearing, the Planning Commission closed
12 the hearing and left the public record open for 14 days to
13 allow people to submit additional information if they wanted
14 to in that time period. We got a lot of additional
15 information within that 14 days.

16 At the end of the 14 days, as you'll recall what I
17 read earlier about the process, the applicant then looked at
18 that information and then submitted new information to the
19 record. What that meant is that when the Planning
20 Commission came back on July 25th, they were unable to make
21 a decision, they needed to open the record again to allow
22 people to respond to the new information that was presented
23 by the applicant.

24 When that new information was submitted after July
25 25th, within that seven days the comments received really

1 focused on two issues. The two issues that came in with
2 that new information included, did the application contain
3 enough information for the Planning Commission to make a
4 decision? And secondly, what was presented was a question
5 whether or not the county can rely on other agencies to
6 satisfy some of the environmental standards in the Curry
7 County zoning ordinance.

8 So today, August 15th, we're here today and it is
9 time to make a decision if the Planning Commission so feels
10 that they're ready to make a decision.

11 In the staff report, what -- what we did, is first of
12 all, did a legal review of the situation based on the
13 comments that were received into the record and based on the
14 information that was presented by the applicant, and looking
15 at the information in the context of, can we meet the
16 criteria in the Curry County zoning ordinance? That's
17 really the crux of the question.

18 And in the staff report you'll see, I went back
19 through the findings, I added information based on what was
20 submitted into the record, what the applicant submitted into
21 the record, and made some conclusions on each one of those
22 findings. And what -- what you'll find in summary here, is
23 that those criteria in the code that deal with some of the
24 environmental issues, and I can list them: dust, noise,
25 fish, water quality, water flow, fish habitat, vegetation,

1 land or soil erosion, wildlife habitat, and land stability.
2 For those environmental factors, we were trying to defer, or
3 were going to defer two other federal and state agencies to
4 address those issues in the context of meeting the county's
5 codes criteria.

6 What we found in the conclusion is that there was not
7 enough information in the application or in the additional
8 information submitted by the applicant to make enough of a
9 determination that those agencies would be able to address
10 those environmental issues in the context of satisfying the
11 code criteria. Therefore, the staff recommendation, based
12 on legal counsel's opinion of what was submitted, is to deny
13 the application.

14 And, John, I don't know if you want to follow up on
15 that with anything I might have missed.

16 COUNTY COUNSEL: No. Unless there's questions.

17 VICE CHAIR ST. MARIE: So, do we go ahead with
18 deliberation then?

19 DIRECTOR CROCKETT: Yes, we can.

20 VICE CHAIR ST. MARIE: Okay.

21 DIRECTOR CROCKETT: Or questions.

22 VICE CHAIR ST. MARIE: Or questions.

23 COMMISSIONER DEWALD: I don't have any questions.
24 Any questions?

25 COMMISSIONER JENSEN: I don't have any questions, I

1 just have observations, which are consistent with your staff
2 report, that I -- I believe that this could be a good
3 project, but there's not enough there, certainly based on
4 the staff report, to move forward.

5 Now, as I went through it and itemized the things
6 that were not -- the criteria were not met are substantial.
7 There's -- there's many items that just -- they didn't meet
8 the standard, and there's some that did meet the standard,
9 there were some that were right there. But the ones that
10 did not were so consequential in my mind that I just -- I
11 agree with staff's recommendation to not approve at this
12 time.

13 VICE CHAIR ST. MARIE: Any comments? No comments?

14 COMMISSIONER LANGE: No.

15 VICE CHAIR ST. MARIE: No. Can we have a motion?

16 COMMISSIONER JENSEN: I'll make a motion to support
17 staff's recommendation as presented.

18 COMMISSIONER DEWALD: I second that motion.

19 VICE CHAIR ST. MARIE: Nancy, can you call the vote?

20 NANCY O'DWYER: Okay. Commissioner Jensen?

21 COMMISSIONER JENSEN: Yes.

22 NANCY O'DWYER: Commissioner Lange?

23 COMMISSIONER LANGE: Yes.

24 NANCY O'DWYER: Commissioner Dewald?

25 COMMISSIONER DEWALD: Yes.

1 NANCY O'DWYER: Commissioner St. Marie?

2 VICE CHAIR ST. MARIE: Yes.

3 NANCY O'DWYER: Passed.

4 DIRECTOR CROCKETT: So, with that, I will prepare a
5 final order for signature and I'll bring that back at the
6 September 19th Planning Commission meeting.

7 RON ADAMS: Do I have the right to make a comment on
8 this?

9 COUNTY COUNSEL: The record's been closed, and so
10 you'll -- excuse me, could I address --

11 VICE CHAIR ST. MARIE: Yes.

12 COUNTY COUNSEL: The record's been closed. Your
13 right will actually be explained in the decision that you
14 receive which, for the most part, would be a right to appeal
15 to the Board of Commissioners at this stage.

16 RON ADAMS: But I'd like to just make a comment, a
17 general comment. I don't have the right to do that either?

18 COUNTY COUNSEL: The record's closed and the
19 decision's been made, so I -- if your general comment is
20 about the application, it's -- it's not appropriate at this
21 time and you'll just have to wait to receive a written
22 decision with your appeal rights in it. Anyhow, that's the
23 bottom line. I'm sorry, Mr. Adams.

24 AUDIENCE MEMBER: I just have one question, will that
25 decision notice go out to the parties who were originally

1 notified as affected people, or is this just something that
2 goes to *(inaudible)*?

3 DIRECTOR CROCKETT: The decision can be posted on the
4 Planning Commission website, and I think we did notify
5 everybody that was interested in that application that
6 that's the best place to get the most current information.

7 AUDIENCE MEMBER: I just wanted to *(inaudible)*.

8 DIRECTOR CROCKETT: Yeah.

9 COMMISSIONER LANGE: I have a question regarding
10 that, too. When the application is made and it goes in
11 front of the Planning Commission, it's published in the
12 newspapers, is the decision published in the newspapers?

13 DIRECTOR CROCKETT: No.

14 COMMISSIONER LANGE: Okay.

15 COUNTY COUNSEL: Only if the newspaper chooses to do
16 so as a story.

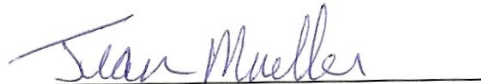
17 COMMISSIONER LANGE: Oh, okay. Understood.

18 *(End of AD-1907 portion of hearing)*
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CERTIFICATE

I, Jean Mueller, do hereby certify that I transcribed the audio of the above meeting; that I thereafter had reduced by typewriting the foregoing transcript; and that the foregoing transcript constitutes a full, true, and accurate record of the meeting.

Dated: November 8, 2019.


Jean Mueller

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PARTIAL TRANSCRIPT OF
CURRY COUNTY PLANNING COMMISSION MEETING
(September 19, 2019)
(Re: AD-1907)

Coleman Reporters
540 H Street
Crescent City, CA 95531
(707) 464-6465
office@colemanreporters.com

1 CHAIR FREEMAN: The next item is -- is for the final
2 order on AD-1907, denial of Adams conditional use for Pistol
3 River gravel extraction. And for that I'll turn over to
4 Vice Chair St. Marie.

5 VICE CHAIR ST. MARIE: Do we need to discuss this at
6 all or just make a motion to sign it?

7 DIRECTOR CROCKETT: I can -- I can introduce and give
8 a brief summary of what the application was.

9 VICE CHAIR ST. MARIE: Okay.

10 DIRECTOR CROCKETT: This is in the matter of AD-1907,
11 a request for conditional use approval for land based mining
12 and processing of aggregate along the Pistol River in the
13 forestry grazing zone.

14 The application was made by Mr. Ron Adams. There was
15 a Planning Commission decision on this on August 15th, 2019,
16 at your last meeting, that decision was to deny the
17 application. The decision was based primarily on, the
18 applicant hadn't submitted enough site specific information
19 about the proposed gravel extraction operation to adequately
20 address the criteria in the Curry County Zoning Ordinance,
21 and specifically could not meet the criteria in the code
22 related to those environmental issues that were brought up.

23 So, with that, that's just it in a nutshell. And I
24 believe you should have the final order in front of you that
25 you've read, and if so, you're ready to make a decision on

1 that.

2 VICE CHAIR ST. MARIE: Do we just need a motion to go
3 ahead --

4 DIRECTOR CROCKETT: Yes.

5 VICE CHAIR ST. MARIE: Okay.

6 COMMISSIONER LANGE: I motion we approve the final
7 order.

8 COMMISSIONER DEWALD: I second it.

9 NANCY O'DWYER: All in favor say aye.

10 COMMISSIONER JENSEN: Aye.

11 COMMISSIONER DEWALD: Aye.

12 COMMISSIONER LANGE: Aye.

13 VICE CHAIR ST. MARIE: Aye.

14 DIRECTOR CROCKETT: Okay. And with that, I do have
15 the final order for you and myself to sign that we'll send
16 out.

17 VICE CHAIR ST. MARIE: Okay.

18 *(End of AD-1907 portion of hearing)*

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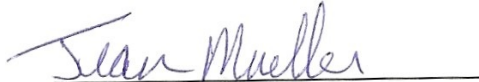
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Dated: November 8, 2019.


Jean Mueller