

DUNES CITY COUNCIL

REGULAR MEETING
APRIL 9, 1987

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DUNES CITY COUNCIL

REGULAR MEETING
APRIL 9, 1987

I. CALL TO ORDER AND ROLL CALL

The meeting was called to order at 7:30 PM by Mayor Nancy LM Johnson.

PRESENT: D. Eastman, R. Forest, R. Petersdorf, Mayor Johnson, E. Fillman, R. DePiero, R. Parent, Attorney Ron Gerber, City Recorder B. Stocking and secretary K. Bacon. There were nine citizens and students in the audience. There was no representative of the press present.

Mayor Johnson welcomed the students from Siuslaw High School who were attending the meeting as a requirement for the history class.

II. APPROVAL OF MINUTES OF MARCH 12 and MARCH 30, 1987

ACTION A motion was made by R. Petersdorf and seconded by E. Fillman to approve the minutes of the regular meeting March 12, 1987. The voting was unanimous, and the motion carried.

ACTION A motion was made by E. Fillman and seconded by R. DePiero to approve the minutes of the special council meeting March 30, 1987. The voting was unanimous, and the motion carried.

III. BILLS AGAINST THE CITY

D. Eastman asked about the cable tv charges on the bills for the month. He was told that the money is paid out of a special account set aside from the franchise fee.

ACTION A motion was made by R. Petersdorf and seconded by E. Fillman to pay the bills against the City in the amount of \$5,972.40. The voting was unanimous, and the motion carried.

IV. RECEIPTS OF THE SESSION - \$9,367.16

V. CITIZEN INPUT ON UNSCHEDULED ITEMS

There was no citizen input on unscheduled items.

VI. ANNOUNCEMENTS AND CORRESPONDENCE

A. Health Care and Emergencies. B. Stocking had received a letter from Lane Community College about a series of classes L.C.C. is offering dealing with health care and emergencies.

- B. **Dog Complaint.** The City had received a letter from Gordon Zehrung concerning a previous dog complaint on Russell. He wanted the council to be aware that there had been no further complaints against the dogs owned by Mr. Camp who was renting Mr. Zehrung's property.
- C. **Woodland Lane Brushing.** The City had received a letter from Mr. and Mrs. Darrell Helmuth and Mr. and Mrs. Vince Swanson concerning brushing on Woodland Lane. They asked that brushing not be allowed in the road right-of-way. They mentioned that the lot to the south of their properties had been logged and implied that the brush in the road right-of-way provided the only natural screen for their property now. Mayor Johnson asked Director of Roads Keith Watson to investigate to see if brushing needs to be done for safety. The City will consider the matter again at its May meeting under Unfinished Business.
- D. **Cleaning on Clear Lake Road.** The City had received a letter from Don Brown thanking the City for cleaning Clear Lake Road. The City had written to Mr. Brown thanking him for his letter and notifying him that the cleaning had been done by Lane County since Clear Lake is a county road.
- E. **Roads in Tsiltcoos Lake Club Plat.** The City received notice from Lane County that the roads in the Tsiltcoos Lake Club Plat have been assigned a tax lot number and taxes are now being levied on the roads. Attorney Gerber advised the council that if the taxes are not paid on the roads for three years they will revert to the county, just as any other property would if the taxes went unpaid. Mayor Johnson asked B. Stocking to write to a few of the owners within the subdivision advising them of the taxes so that they can be paid.
- F. **Request to Use the Kitchen.** Mary Chun, who had requested last month to use the kitchen in the Community Center, notified the City that she is withdrawing her request since the Lane County Sanitarian had found too many things that would have to be done before she could use it commercially.
- G. **Robert McGuire - Major Partition.** The City had received a letter from Mr. and Mrs. Robert McGuire asking that their major partition be cancelled.
- H. **Soroptimist Rose Sale.** B. Stocking announced that the Soroptimists are selling roses for \$15 per dozen as a fund raisers to help fund the many service projects they undertake each year.

VII. REPORTS

- A. West Lane Disposal Sign. Attorney Gerber announced that he had talked to the attorney for West Lane Disposal about the sign they have in front of the business. Their attorney assured Mr. Gerber the company will not pick up garbage inside Dunes City before the present franchise expires. Attorney Gerber advised them that they may have some liability because of the wording of their sign. However, they have not changed their sign.

In anticipation of the franchise expiring, the City of Florence has devised a license to implement. Attorney Gerber offered to obtain a copy of it. The mayor asked if Attorney Gerber could put a copy of the license in each council member's packet for the May meeting.

- B. LCOG Goal Setting. The council members had received a copy in their packets of the LCOG goal setting session.
- C. Roads. In response to an inquiry from the City, the City had received a letter from Lane County outlining how much money the county had spent on county roads in this area during the past four years. They listed the maintenance expenses for county roads that run through Dunes City, but they did not have them broken down as to how much was spent inside Dunes City. According to Mr. Petersdorf, Lane County is presently proposing to give Dunes City \$43,000 to maintain the present county roads if the City would accept them as City roads.
- D. Signs. The City had received a signed complaint about a sign at the Westlake Resort. Mr. Doran of Westlake Resort had removed the sign and had made application through the planning commission for a Sign Permit.
- E. Salal Road Culvert. The mayor thanked Mr. Petersdorf and Mr. Watson for the hours of work they had spent on clearing a beaver dam from a culvert on Salal Road. She asked Mr. Watson to explain about the beaver dam for the benefit of the high school students who were present, and Mr. Watson did.

VIII. PUBLIC HEARINGS

- A. Flood Plain. It was announced that the City does not need to conduct a flood plain public hearing since it was too small to qualify.

- B. McCleary Peckham - Variance. The mayor opened the public hearing at 8:05 PM. Jim Archer, representing Mr. Peckham, was present. He said that he had talked to the Peckhams by phone, and that Mr. Peckham will try to build the majority of his addition to the back of the existing house (west side). He said that Mr. Peckham would like to build a 4 foot 6 inch addition on the east side of the house, and for that addition he will need the Variance. Mr. Archer said that Mr. Peckham will try to abide by the 20-foot setback restriction for side yards specified in the C.C. & R's for the subdivision by limiting the addition on the south side of the house to two feet. Mr. Peckham is going to talk to the adjacent property owner on the south side of his property and see if he can work out an agreement with him, according to Mr. Archer.

Mr. Archer said that the 4 foot 6 inch addition would put the house 17½ feet from the power pole, and Mr. Archer estimates that the power pole is on the property line or inside the property line.

M. Miller, the chairman of the planning commission, was present and pointed out that the planning commission had recommended that the front property line be determined by a surveyor and monumented before the variance is granted to determine how much of a variance is being granted.

The public hearing was closed at 8:20 PM.

Attorney Gerber pointed out that Leavitt Loop has been in its present location for ten years or more; and by prescriptive easement, it may be considered that the road will probably continue to lay in its present location. There was a discussion of the problems that might arise if it was determined that the road right-of-way was actually closer to the existing house.

ACTION A motion was made by D. Eastman and seconded by R. Petersdorf to accept the Findings of Fact and Conclusions of Law of the planning commission with the following conditions:

1. That Mr. Peckham determine conclusively by a licensed surveyor the location of the front property line and if the property line is located differently than Mr. Archer shows it on his submitted sketch, that the council reserves the right to review the Variance. Such survey report is to be filed with the City.

2. That the City point out to Mr. Peckham that the City is not granting him a Variance to the C.C. and R's with regards to the addition to his house on the southerly end.

The voting was unanimous, and the motion carried.

C. Conditional Use Permit - Willis A. Meyer, applicant.

The public hearing was opened at 8:33 PM. D. Eastman stated that he had had contact with Mr. Meyer, but he did not feel that his contact had affected his ability to vote objectively on the application.

Mr. Meyer was in the audience but did not make a formal presentation. He said that all the information should be in the packets the council members received, and the map included in the council packets was the revised map requested by the planning commission as a condition for approval.

The public hearing was closed at 8:34 PM.

CTION

A motion was made by E. Fillman and seconded by R. Petersdorf to accept the planning commission's Findings of Fact and Conclusions of Law and to approve the Conditional Use Permit request of Willis A. Meyer subject to the following conditions:

1. That the mobile home will be set up according to City and state mobile home codes and will meet the required Dunes City standards.
2. That the mobile home will be skirted when it is installed.
3. That Mr. Meyer will present a copy of his revised plot plan prior to the city council meeting (which he had done).

The voting was unanimous, and the motion carried.

B. Stocking advised Mr. Meyer that he needs to obtain a building permit for the installation, and Mr. Meyer said that he would be in to pick one up.

D. Ordinance #117. The public hearing was opened at 8:36 PM on Ordinance #117. There was no public input, and the hearing was closed at 8:37 PM.

ACTION A motion was made by R. Petersdorf and seconded by D. Eastman to have the first reading of Ordinance #117 by short title only. The voting was unanimous, and Attorney Gerber read the following:

"An ordinance amending Ordinance No. 111, which is an ordinance amending Ordinance No. 60, the Land Subdivision Ordinance, and this ordinance sets forth requirements of ingress and egress."

ACTION A motion was made by R. Petersdorf and seconded by E. Fillman to accept the first reading of Ordinance #117 by short title.

AYE: D. Eastman, R. Forest, R. Petersdorf, Mayor Johnson, E. Fillman, R. De Piero and R. Parent.
NAYE: none.

The motion carried.

ACTION A motion was made by R. Petersdorf and seconded by E. Fillman to have the second reading of Ordinance #117 by short title. The voting was unanimous, and Attorney Gerber read the ordinance as above.

ACTION A motion was made by R. Petersdorf and seconded by E. Fillman to accept the second reading of Ordinance #117 by short title.

AYE: D. Eastman, R. Forest, R. Petersdorf, Mayor Johnson, E. Fillman, R. DePiero and R. Parent.
NAYE: None. The motion carried.

E. Ordinance #114. The public hearing was opened at 8:45 PM on Ordinance #114 - regarding submission dates for land use actions.

ACTION A motion was made by R. Petersdorf and seconded by D. Eastman to have the first reading of Ordinance #114 by short title. The voting was unanimous, and Attorney Gerber read the ordinance as follows:

"This is an ordinance amending Ordinance Number 60, Dunes City Subdivision Ordinance, by amending Section 1.05-(C). Ordinance 60 presently requires partitions and subdivision applications be submitted to the planning commission nineteen (19) days before the regular monthly meeting. This ordinance will require those applications be filed thirty (30) days before the regular monthly meeting."

ACTION A motion was made by R. Petersdorf and seconded by D. Eastman to accept the first reading by short title.

AYE: D. Eastman, R. Forest, R. Petersdorf, Mayor Johnson, E. Fillman, R. DePiero, and R. Parent.

NAYE: None. The motion carried.

ACTION A motion was made by R. Petersdorf and seconded by D. Eastman to have the second reading of Ordinance #114 by short title. The voting was unanimous, and Attorney Gerber read the ordinance as above.

ACTION A motion was made by R. Petersdorf and seconded by D. Eastman to accept the second reading of Ordinance #114 by short title.

AYE: D. Eastman, R. Forest, R. Petersdorf, Mayor Johnson, E. Fillman, R. DePiero, and R. Parent.

NAYE: None

The motion carried.

F. **Ordinance #115.** The public hearing was opened at 8:50 PM on Ordinance #115 and closed at 8:50 PM since there was no public input.

ACTION A motion was made by R. Petersdorf and seconded by D. Eastman to have the first reading of Ordinance #115 by short title, and Attorney Gerber read the ordinance as follows:

"An ordinance repealing Ordinance Number 95 and amending Ordinance Number 76, making changes in Dunes City's implementation of the state building codes through local enforcement."

ACTION A motion was made by R. Petersdorf and seconded by E. Fillman to accept the first reading of Ordinance #115.

AYE: D. Eastman, R. Forest, R. Petersdorf, Mayor Johnson, E. Fillman, R. DePiero and R. Parent.

NAYE: None

The motion carried.

ACTION A motion was made by R. Petersdorf and seconded by R. Forest to have the second reading of Ordinance #115 by short title. Attorney Gerber read the ordinance as above.

ACTION A motion was made by R. Petersdorf and seconded by R. Forest to accept the second reading of Ordinance #115 by short title.

AYE: D. Eastman, R. Forest, R. Petersdorf, Mayor Johnson, E. Fillman, R. DePiero and R. Parent.

NAYE: None

The motion carried.

IX. UNFINISHED BUSINESS

- A. **Salal Road Permit.** The secretary reported that Ruth Wood had called and asked that the Salal Road Permit scheduled on the agenda be moved to the May council agenda. She explained that her attorney had been unable to serve the necessary papers on Dr. Jeremy Orcutt.
- B. **Community Center Doors.** D. Eastman reported that he had gotten estimates from Mid-Valley Building Supply and the Eugene Planing Mill for new doors for the Community Center. Both companies recommended not using metal doors since metal doors would rust faster if a window was cut into the door to accommodate the City's specifications. Mr. Eastman reported that the four foot door for the kitchen would cost \$650 and the three foot six inch door on the front of the building would be \$300 on one estimate and \$430 on the other estimate. Both estimates included the passage lock with a single key tumbler lock above. D. Eastman estimated that it would cost an additional \$100 to have a carpenter hang the door. He suggested the City have a carpenter give a price for installing the door including the price of the door (meeting the City's specifications). Mayor Johnson suggested that the council members come with definite figures stating who will do the job and how much they will charge to the May city council meeting so that the council can vote on it. The council opinion was that the door should be a wooden door. And the consensus of the council was that a security grate be installed on the back door to the kitchen rather than replacing that door.
- C. **Solar Access Permit.** It was reported that the City is presently unable to implement its solar access ordinances since it does not have the necessary application permits. The City office had been in contact with Gary Darnielle of LCOG. Les Tumidaj, who originally worked

with the City through LCOG to develop the City's solar ordinances, is now a private consultant in Portland. He had called the City and offered to provide either the necessary application forms and charts or to conduct a training session with the office staff, council members, and planning commission.

The city council opted to contact Mr. Tumidaj for the necessary forms. They did not think a training session was necessary at this point.

X. NEW BUSINESS

- A. League "Making a Right Turn" Survey. The council instructed B. Stocking to fill out the survey form and return it.
- B. Westlake Fisherman's Market. The City had received a request to recommend approval of the liquor license for the market.

ACTION

A motion was made by E. Fillman and seconded by R. Petersdorf to recommend approval of renewal of the liquor license application for Westlake Fisherman's Market. The voting was unanimous, and the motion carried.

C. Buckwald Special Use Permit. Mayor Johnson reported on the public hearing she had attended on the request of Michael Buckwald for a Special Use Permit. She reported that no conclusion had been reached at the hearing she attended. The county will hold another hearing on the matter May 25. The council discussed possible dates when the council could take public input. It was announced that Dunes City will host an LCOG meeting here at the Community Center May 28. The mayor said that she would like to have all council members attend that meeting. E. Fillman asked to be excused from that meeting.

Attorney Gerber said the City should decide whether or not to make a statement to Lane County about the City's position. Attorney Gerber said that, if the the City wants, it may allow public testimony and limit it to a certain number of minutes for or the same number of minutes against and limit testimony to how the proposed plan complies with the Comprehensive Plan.

The meeting was recessed at 9:25 PM and reconvened at 9:30 PM.

During the recess, Attorney Gerber checked to see if it was possible to consider new items of business if they were not on the agenda. He advised that the City can consider any item not on the agenda.

ACTION A motion was made by R. DePiero and seconded by R. Petersdorf to approve the concept of a campground for RV users in the proposed area but stressed that they were not necessarily approving of the Buckwald plan as submitted.

The council did not take a vote and discussed having a meeting where the public may respond. Attorney Gerber advised the council not to vote until it had studied the Comprehensive Plan to be sure that the council was not voting against the Comprehensive Plan. It was suggested that the planning commission be asked to take Findings of Fact and Conclusions of Law on the proposal as it relates to the Comprehensive Plan.

Attorney Gerber suggested sending a letter to Michael Buckwald and Russ Heggen saying that the City will take testimony on how the proposal complies with the Comprehensive Plan.

ACTION A motion was made by R. DePiero and seconded by D. Eastman to table the motion on the floor. The voting was unanimous, and the motion carried.

R. Petersdorf called for a point of order on tabling the former motion without him withdrawing his second. The attorney advised that it could be done.

Mayor Johnson scheduled a special city council meeting for April 29 at 7:30 PM to take public testimony about the proposal. The council would like the planning commission to take Findings of Fact and Conclusions of Law on the proposal as it relates to the Comprehensive Plan and make a recommendation to the city council. The city council will delay taking a final stand on the proposal until the May business meeting at which time it will consider the recommendation of the planning commission and the result of the public testimony.

Attorney Gerber suggested opening the meeting at 7:30 and stating to those present that the public hearing will be opened at 7:45 PM and that those wishing to testify should organize themselves into the areas they represent -- pro and con. If they cannot organize themselves and appoint a spokesperson, then the time could be divided equally among those who wish to testify but to a total of 30 minutes for each side.


Mayor Johnson said tht she would like to work with the office staff on the advertisement for the special meeting.

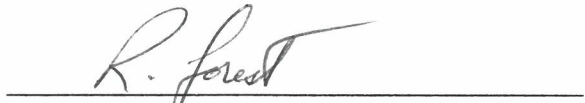
XI. ADJOURNMENT


The meeting was adjourned at 10:10 PM.

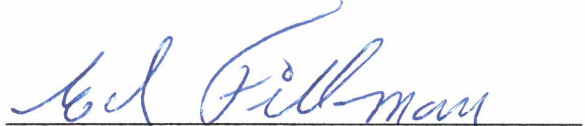

MAYOR NANCY L.M. JOHNSON



SECRETARY K. BACON

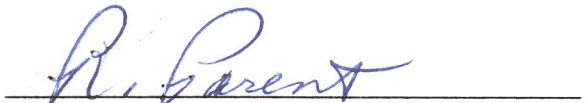

D. EASTMAN


R. FOREST


R. PETERSDORF


E. FILLMAN


R. DE PIERO


R. PARENT

DUNES CITY COUNCIL

SPECIAL MEETING APRIL 29, 1987

I. CALL TO ORDER AND ROLL CALL

The meeting was called to order at 7:30 PM by Mayor Nancy LM Johnson.

PRESENT: D. Eastman, R. Forest, R. Petersdorf, Mayor Johnson, E. Fillman, R. DePiero, R. Parent, Attorney Ron Gerber, City Recorder B. Stocking and secretary K. Bacon. There were two representatives of the press and 44 citizens in the audience.

II. MIKE BUCKWALD - SPECIAL USE PERMIT

The council had called the special meeting to take public testimony on the Special Use Permit requested by Mike Buckwald and his partners before Lane County. Mayor Johnson told those present that the applicant and proponents would be given a total of 30 minutes to present testimony. Those in opposition would also be given 30 minutes to present testimony. The mayor then called a recess at 7:35 PM to allow each side time to organize its presentation. The meeting was reconvened at 7:40 PM.

The mayor asked the council if each of the members had had time to read the materials presented. D. Eastman and R. Parent responded that they had not had time to read the materials. All other council members said that they had read the materials.

Mayor Johnson suggested that the applicant's materials be entered as Exhibit A, the opposition's materials are entered as Exhibit B, the materials John Carlson submitted the day of this meeting are entered as B¹ and the materials submitted by Russ Heggen the day of this meeting were submitted as Exhibit B², and the planning commission's report and recommendation were submitted as Exhibit C.

ACTION

A motion was made by R. Petersdorf and seconded by R. Forest to accept the above-named exhibits as part of the record of this meeting. The voting was unanimous, and the motion carried.

Mayor Johnson then asked each of the councilmen if he had had any ex parte contact or conflict of interest. D. Eastman and R. Forest each said that he had talked to John Carlson when Mr. Carlson had hand-delivered his materials. R. Petersdorf said that he knows Mike Buckwald and Terry Duman (one of his partners) well and had walked over the proposed property. E. Fillman said that he had had no contact. R. DePiero said that he had talked with several

people about the proposal but had not been actively lobbied by anyone. R. Parent stated that he is the owner of an RV park but did not feel that he would be biased by that. Mayor Johnson stated that she had had no contact. All stated that they had no conflict of interest.

The mayor opened the public hearing at 7:45 PM. Mike Buckwald opened the testimony. Mr. Buckwald posted a topographic map on the blackboard that was posted throughout the meeting. Mr. Buckwald said that he and his partners, Terry Duman and Larry Hague, plan to develop 26 acres on the east side of Highway 101 into an RV campground. They plan to have 87 campsites. Twenty-two of those campsites will be full facility with power, sewage and water hookups. The remaining 65 campsites will have water and access to restroom and shower facilities. They have applied to the forest service for a permit to build an access road to the dunes. The Dunes N.R.A. has done an environmental analysis and has given tentative approval for the access. Final approval is pending the outcome of the public hearings.

Buckwald said that the campground will have a clubhouse, caretaker cottage, and two parking lots in addition to the campsites. He said that the clubhouse will be available as a meeting place for campers, and the volunteer dune patrol will be able to use it to conduct its bi-monthly meetings. The applicants also plan to show videos of local businesses in the clubhouse.

Buckwald assured those present that the two parking lots are not going to be used for overflow camping. He stressed that use would not be allowed under their permit from Lane County. The parking lots are designed to be used for extra vehicles for guests visiting campers, boats and trailers.

Mr. Buckwald directed his testimony toward the Conclusions of Law determined by the planning commission. Conclusions of Law #1 stated that the water quality of Woahink Lake may be adversely affected if materials from the project erode into the streams that feed into the lake. He agreed that could be true, but he added that once the applicants obtain the special use permit from Lane County they will have to obtain permits from the Boundary Commission and D.E.Q. approving the water and sewer.

Buckwald read from the report of Steve Wert, a soil scientist, that was included in Mr. Buckwald's material. Buckwald said that use of the campground will be heavier during the summer months when the water table is at its lowest.

Buckwald addressed Conclusion of Law #3 concerning increased roadway danger. It said that it was true that it would increase traffic or congestion on the highway but that any new home or development will cause increased congestion. He said that the highway department report indicates that accident rate along this portion of Highway 101 indicates that the accident rate is less than the rate on the non-freeway portion of the entire state primary system in the past five (5) years. "The rate on this portion of Highway 101, has also been less than the non-freeway portions of the primary system in rural areas in four of the last five years," Buckwald said.

Buckwald contested Conclusion of Law #4 concerning stabilized and active dunes. He agreed that there are some stabilized dunes and some destabilized dunes in the area, but he said that Lane County will require that the area be restabilized once the development is done. Buckwald said that both the department of forestry and Lane County had offered advice on how to reforest. He also stated that there are no active dunes on the property.

In addressing #5 of the Conclusions of Law, Buckwald said that he agrees it will be ugly while the property is being developed, but the property will be reseeded. The applicants want the development to look like Honeyman Park, Buckwald said. No campsites will be developed on the steep slope at the back of the property, and he thinks the development will not be seen from the east side of Woahink Lake.

In addresssesing #7 of the Conclusions of Law, Mr. Buckwald said that he does not understand the term "strip development". He interpreted it to mean that the developers will strip the property bare. He stated that they do not plan to strip the property and that they will reseed the property.

Buckwald said that the development is not being called a dune buggy camp by the developers. He said that the opposition can "push numbers" concerning the number of dune buggies that will be on the property at one time all they want; but they are considering it an RV campground, and it will be open to "anybody who pulls in there and would like to camp". They do not think the development will increase the number of people on the dunes but will disburse those that are already there.

Buckwald said that they want to portray a camping experience in a forest use and will have campfire rings. In addressing need, Buckwald said that Woahink Lake Resort to the south does not allow children or pets; their development will. He challenged the inference that Woahink Lake Resort plans to add an additional 38 spaces. He said that it appears there is room for 38 more but has seen no specific data that they have plans to enlarge.

John Carlson. Stated that the minutes of the planning commission meeting establish a legal basis for denial, and that the opposition agrees with the planning commission's recommendation of denial.

Russ Heggen. Challenged Buckwald's quotes from the Dunes N.R.A.'s environmental study. Heggen said that the study is two years old and that he (Heggen) had been told by the head of N.R.A. that the study would be completely redone.

Heggen said that Buckwald's traffic engineer estimated that there will be 100-200 cars per hour at peak load. He said that the same traffic engineer stated that a left turn lane should be considered if more than 15% of the traffic comes from the south. The opposition feels that is quite likely, Heggen said.

Heggen estimated that a concrete wall constructed at parking lot level as a proposed sound barrier will not stop sound from the top of the hill 85 feet above from reaching the house at the north side of the property. He gave the vacancy rates outlined in the written material submitted and entered as Exhibit B². He concluded that six busy days a year (e.g., the weekends of Memorial Day, Labor Day and 4th of July) do not justify this development.

Donald Tillman. Stated that he lives on the east side of Woahink Lake. He said that he agrees there is a growing recreational need, but that he does not believe it should be in this area among residences. He agrees that the sand will move if disturbed by the development. He further stated that he thinks a turn lane should be included at the time of the development if the special use permit is granted. Tillman also said that there should be further soil tests to determine the permeability and thinks that sewage and runoff will flow into Woahink Lake.

Jane Douglas. Is concerned about the development affecting the water quality in Woahink Lake. She stated that most residents take their water from the lake and understands that if the lake becomes polluted it cannot be reversed.

Elmore Petersen. Stated that he believes the written material submitted is full of exaggerations on the water, amount of sewage and traffic.

George Baker. Lives on Lakeshore Drive. He thinks the noise from dune buggies will increase "tremendously" from this development.

Thurman Furby. Owns Lakeshore Trailer Park. He rebutted Buckwald's statement about the type of customers they accept. He said that they do not cater to overnight traffic. Furby said that they have 15 spaces available for "transient" RV's, which includes monthly use through the summer period. Very few of these people have had dune buggies. Furby said that they do not try to provide the type of state park atmosphere that Buckwald says he would like to provide. He thinks Buckwald and his partners will not be able to keep RV's in a park where there are ORV's because the noise and dust stirred up by ORV's will discourage them. Furby added that he has never failed to find a space in the area for an RV when his own spaces are full. Furby thinks that shoals in the cove below his property on Woahink Lake are caused by runoff from the culverts that drain the applicants' property.

Martha Jakob. Said that she supports "The American Dream", but that people invested in their property relying on present zoning to protect their investments. She said that she thinks the Dunes City Council should help to protect their investments. She mentioned hostile acts that have taken place against the opposition.

Elvin Ragsdale. Thinks the ground can probably handle the existing sewage in the area, but he does not think it can handle more.

Sam Marinesi. Reminded the city council members that they were elected to represent the citizens of Dunes City. He stated that if the citizens could vote on the present development, he thinks the vast majority would vote against this project. He asked that the council give some consideration to what the citizens want.

Chick Taylor. Lives immediately south of the proposed development. She said that she knew when she bought her property that it was zoned F-2, the same as part of the applicant property, and that campsites are allowed in that zone. However, she said that, to her, "campsites" means for tents. She said she was concerned, too, how the development might affect her well.

Gini James. Says that the amount of traffic this development generate bothers her. She said that if a left turn refuge is needed, it will have to be taken from her property (across the street from the development) or from the applicants' buffer zone. She would not like to see either one of those things occur. She is also concerned about the noise. However, she said that her main concern and the main concern of people she has talked to is the water. She said that if there is enough contamination from this that it ruins the drinking water from Woahink Lake, "it could be a very grave error".

Fred Correll. Said that he had surveyed the proposed development property for Irv Johnson, a previous owner. Correll thinks the property is "a sump hole" and is not developable.

Mike Buckwald. Buckwald declined to rebut.

The public hearing was closed at 8:53 PM. The meeting was recessed. The meeting was reconvened at 9 PM and opened for questions from the council. D. Eastman asked Buckwald if he has obtained the necessary highway permit. Buckwald responded that he has and also has a one-year extension. Eastman asked Buckwald if he has a logging permit and if he plans to log the property if he is not successful in obtaining a special use permit. Buckwald responded that he has a logging permit and does plan to log the property if that is their only recourse.

R. Forest asked Buckwald about the catch basin discussed by Mr. Wert in his report. He wondered what would prevent it from overflowing from runoff at the higher elevations and flowing into Woahink Lake. Buckwald responded that there is water standing in places on the property now on the eight-acre portion. There is a spring that comes up in that one area that crosses over and goes into the stream.

R. Petersdorf wanted to point out that Woahink Lake Resort accepts adults only and does not accept pets, and he said that he does not think Lakeshore Trailer Park lists on its sign that it accepts overnights and RV's.

Mr. Furby contested Mr. Petersdorf's statement. He said that they had changed the name from Lakeshore Mobile Home Court to Lakeshore Trailer Park to encourage overnighters.

R. DePiero asked Buckwald if he had a lower intensity design or contingency plan for one other than the one being proposed or if this plan was the only one that would be economically feasible. Buckwald replied that this plan is the only one being proposed to Lane County; and if it is approved, then it will be engineered.

R. DePiero asked Attorney Gerber if the City would be allowed any input concerning design and engineering if the special use permit is approved. Attorney Gerber responded that this time is the City's formal opportunity to give input. However, Gerber thought the City would probably also have an opportunity at the staff level to give input. R. DePiero discussed his concern about coliform infiltration from the septic system infiltrating into the water table and expanding to the point where the wells in the area may be unable to get water at all. He asked Buckwald if the highway department does not require a left turn refuge at the time of the development, how will one be required when it is necessary. Buckwald replied that it is his understanding that when a refuge is needed, the highway department can "stop us some way" and suggested that it may be through reducing the number of campsites allowed to reduce the activity to the point that a left turn refuge would not be necessary.

The council discussed whether or not to make a decision at this meeting or at its regular May 14 meeting on a recommendation to Lane County. The council discussed dates and Lane County deadlines for submission of data. It was decided to make the decision at this meeting.

Attorney Gerber interpreted "strip development" for those present. He said that strip development "is the process by which property is converted from residential or forest use into commercial use one parcel at a time. And, in our particular circumstances, it would be a further commercialization of the strip of property along Highway 101."

R. Petersdorf asked how the council could call the proposed development commercial. Attorney Gerber responded that the Comprehensive Plan does consider this use as tourist commercial, and the testimony at this meeting indicated that the developers plan to serve the need of a segment of the tourist traffic on the Highway 101 area for a profit.

R. Petersdorf said that he could not justify calling the development commercial even if it is making a profit and compared it to the Oddfellows' Campground on South Jetty Road. Gerber pointed out that Petersdorf's comments concerning the Oddfellows' Camp are not comparable since the Comprehensive Plan does contemplate commercial development in the Florence/Glenada area rather than in the area of the proposed development. Gerber said the city council can determine if the proposal is commercial. If it decides that the development is not commercial, the applicant does not have to prove need.

R. DePiero argued that without further study, he worries that the council would put a lot of people at risk if they recommend approving the permit "because 7,000 gallons a day of 'sanitary influx' " seemed like a lot to him. He worried that an algae bloom underground could seal off wells so that those who take their water from wells would not get any water at all. DePiero said that he also thinks the nutrients infiltrating Woahink Lake will cause a problem some time in the future, and that this development will just hasten that process.

R. DePiero asked if the council could qualify its approval to the Lane County hearings official. Attorney Gerber responded that the City could qualify its approval.

Petersdorf asked how the planning commission had reached its Conclusion of law that the development may increase congestion and roadway danger. Gerber responded that the planning commission did not feel that it had enough information to state that it definitely would.

Gerber said that he had checked the property on his way to this meeting; and he did not think that the property would be visible even in winter, but the planning commission had the topographic map presented to it at the meeting and did not have time to compare it with the property as far as determining the effectiveness of the screening barrier.

Attorney Gerber suggested that at a previous Lane County hearing, it was stated by a west Lane planning commissioner that Dunes City had no right to give input. So Attorney Gerber suggested that if the city council wanted to prepare an order for the hearings official it should include the following additional Findings of Fact:

1. That Dunes City has adopted a Comprehensive Plan that has been approved by LCDC and has been reviewed and accepted by Lane County.

2. This parcel is within Dunes City's area of influence that is defined in the Comprehensive Plan.
3. This parcel is immediately adjacent to Dunes City's border across Highway 101 west of the City.
4. There exists an intergovernmental agreement between Dunes City and Lane County that provides Dunes City shall have the right to tender input regarding Lane County land use decisions within the City's area of influence.
5. Operations of this type tend to have their peak periods of business in the summer, specifically July and August.

ACTION

A motion was made by R. DePiero and seconded by E. Fillman to recommend disapproval of the proposal presented because the data presented by the applicant is inconclusive and it does not meet the intent of the Dunes City Comprehensive Plan. A lower intensity use would be contemplated. This motion is made to include Mr. Gerber's Findings of Fact and the planning commission's Findings of Fact and Conclusions of law and recommendation.

There was a discussion before the vote was taken of the words "would be contemplated". Attorney Gerber advised that the City's options would be legally preserved with that wording, and the vote was taken.

AYE: D. Eastman, R. Forest, E. Fillman, R. DePiero, R. Parent

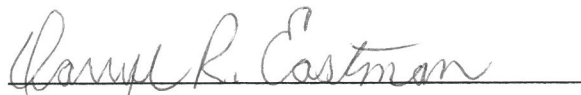
NAYE: R. Petersdorf

The motion carried.


III. ADJOURNMENT

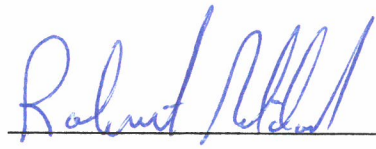
The meeting was adjourned at 10:02 PM.


MAYOR NANCY LM JOHNSON

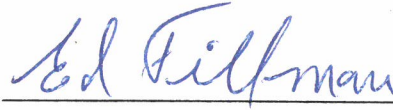

D. EASTMAN


SECRETARY K. BACON

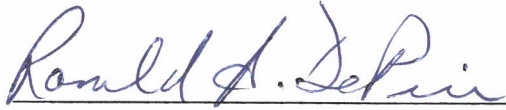

R. FOREST



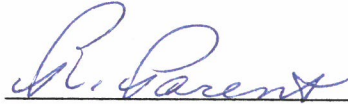
R. PETERSDORF



E. FILLMAN



R. DE PIERO



R. PARENT

4-21-87

City of Dunes
P.O. BOX 97
Westlake, Oregon 97493

Planning Commission,

Enclosed you will find the following documents:

1. Legend from Oregon Dunes National Recreation Area Map.
2. Excerpts from the 1979 Coastal Domestic Water Supply Study, conducted by Lane County.
3. Permit for road approach from Highway 101.
4. Letter from the Department of Fish and Wildlife.
5. Report from Steve Wert, C.P.S.S. (Soil Scientist).
6. Forest Service dunes access permit, and Environmental and Decision Analysis.

We appreciate the opportunity to submit this data to you.

Much has been said and printed about this project. As most of you are aware, we applied for a zone change in 1986, on the 8 acre parcel. After much deliberation the request was denied. The denial order was based on the fact that the county could not limit the proposed commercial activity to tourist related activities. The county does not have a tourist commercial designation within the comprehensive plan. Therefore, granting the zone change request would have allowed any commercial activity, such as a bar, restaurant or service station. In the end, the commissioners denied the request on this issue.

We then applied for and received logging permits in order to harvest what merchantable timber there was on the two pieces of property. We built a landing and began building a road for trucks to haul over. After considerable thought and re-evaluation of our alternatives, we decided to apply for a special use permit for both the 18 acre F-2 property, and the 8 acre RR-5 property to build an RV campground only. We understood the largest complaint over the rezone proposal to be the commercial activities, such as ATV rentals and other proposed amusement type activities. We felt a campground alone, with no commercial activity would be reasonably acceptable to the original opponents. This is obviously not the case.

Our revised plans and response to Lane County is due Wednesday April 22, 1987. We have scaled the campground proposal down to 87 campsites from the original proposal of 139. The two parking lots have been slightly scaled down, and the clubhouse has been moved away from the northern boundry which is adjacent to RR-5 property.

There have been many insinuations made by the opponents regarding our intentions for the parking areas. The parking areas will be for parking boats, boat trailers, and ATV's with trailers.

from our campground. It will also be used for parking any extra vehicles from the campground. Many times campers will bring their families in more than one or two vehicles and there will not be enough room in their camp space for these vehicles. The parking areas will be available for this use. Campers also may have visitors that stop by to see them, again the parking areas will be used to accomodate these visitors.

It has been said by the opposition that we might use these parking areas for overflow camping, and/ or charge ATV users a fee to park and stage thier vehicles from our campground. We have absolutely no intention of allowing this to occur. It would be a direct violation of Lane County zoning ordinances to do so.

We hired a reputable soil scientist to evaluate soils on our 26 acre site, his report is a part of this packet. Mr. Wert concluded among other things that " a properly designed waste water system will, in my opinion, prevent any adverse impacts to Woahink Lake.", " Lane County documents indicate that ground water moves slowly toward the ocean from Woahink Lake." The remainder of his conclusions can be found in his report, all of which are very positive.

The State Highway Department has issued an approach permit from highway 101 onto our property. They have indicated that our entrance is located in a very good location because there is a long strait stretch of highway with good visibility both north and south. They are not requiring a turn lane at this point. They indicate that in the future, if traffic flow from our project becomes a problem, they may then require a turn lane. The opposition will propose just the opposite. Without any ACTUAL facts and figures, they are proposing that we put in a turn lane before we even find out what our traffic flows will be. In fact they are estimating some outrageous numbers which have no facts in the way of actual figures to support their request. We feel we should be given the opportunity to see what the actual traffic flow will be before having to put in a turn lane.

As part of our proposal we have applied to the Forest Service for a permit to access the open sand dunes from our property. The permit has tentatively been approved, subject to receiving the required special use permit from the county.

The county has recomended a curfew on the use of this road by ATV's. We agree with this recommendation and will enforce it.

This campground will accomodate all campers not just ATV campers. We feel the locatin is ideal. It is located on the west side of Hwy 101, along the boundry of the Oregon Dunes National Recreation Area. The NRA management plan calls for a sand access on the Woahink Lake side of the dunes. This and many more comments can be found in the enclosed Forest Service Dunes Access Permit and Environmental and Decision Analysis.

We have done everything short of giving up on this project, to mitigate the concerns and objections of the opponents of this project. It doesn't appear that anyone is willing to work towards an agreeable solution that would satisfy all concerned. We have been willing in the past and are willing now, to try and work out a livable plan.

We have absolutely no intention of destroying the scenic value of the hwy 101 corridor. There will be up to 175 feet of undisturbed natural vegetation in most areas along highway 101. This can be seen on our new drawing, which I will have at the meeting on Wednesday. This buffer zone will range from 175 feet to about 125 feet and act as a scenic buffer along the highway. We sincerely believe that we can maintain the scenic value of the highway and the natural forest look of our campground by development with care.

The City of Dunes comprehensive plan does not specifically discuss how development should occur outside their city limits and urban growth boundry. It does however on page 90 under item 3, discourage new commercial development south of Honeyman State Park. I must remind you that our proposal is not a commercial activity, it is a recreational experience of forestland, which is one of the policies in The City of Dunes comprehensive plan. Page 85 of the comprehensive plan under forestland policies states, " forestlands will be protected for use as urban buffers, habitats, scenic corridors AND recreational use.". We feel the large natural vegetation and timber buffer that we are leaving along highway 101 will serve both as an urban buffer and protect the scenic corridor along highway 101. We also feel that our campground is covered under recreation use of forestland. Camping is most certainly a forestland experience that needs to be shared with everyone.

There is probably no possible way to answer all the questions and/or what ifs that could be presented to us about our project. We will certainly try and answer them, but one could go on forever trying to find ways of stopping this type of project, and we could go on forever trying to find ways of answering them. Lane County and the State of Oregon have miles of red tape and regulations from numerous agencies that are going to govern things such as water quality, sewage disposal, lighting, traffic flows, noise, size of camping sites and many more that we are not even aware of yet. We will have to comply with each and every one of these regulations and meet each and every one of the tests necessary to continue with our project. We ask you to review the facts, ask the necessary questions, get the answers , then make a fair recomendation, based on these facts, and answers. We are more than willing to work with the City and the oposition to accomplish our goal to provide a modern campground with facilities for those who do not choose to have a primitive camping experience.

Thank you for this opportunity to present some of our viewpoints and concerns.

Sincerely,

Michael S. Buckwald
Larry W. Hague
Terry W. Duman

The following is a brief summary of what this packet contains. We appreciate your support and your willingness to make yourself knowledgeable about our project proposal.

We have made every effort to address the specific concerns raised by the opposition, such as water, sewer, lake contamination, highway approach permit and sound.

We have not been able to get a reduction made of our project diagram yet. I will have a large diagram at the meeting Wednesday.

SECTION 1. This section has a legend from the Oregon Dunes National Recreation map that shows the name of the campground and number of camping sites that have dunes access. There are 146 campsites with dunes access. These are not full facility campgrounds; no power, sewer or shower facilities. There is another campground that has dunes access at the Oddfellows Park on the South Jetty Road, but this is a private facility and you must be a member.

SECTION 2. These are excerpts from the 1979 Coastal Domestic Water Supply Study conducted for Lane County. These pages of the study indicate that there is ample water for a municipal water supply. We are not proposing anything as large as a municipality, therefore we feel there should be plenty of water available for our needs. Also, there is a map showing the study area that shows the flow of the water away from Woahink Lake toward the ocean.

SECTION 3. This is an approval of our application to the State Highway Division for a road approach from Highway 101 to our property.

SECTION 4. This is a letter from the Department of Fish and Wildlife indicating that, to the best of their knowledge, there is no sensitive wildlife on or adjacent to our property.

SECTION 5. This is a report from a certified soil scientist that says our soils have the ability to handle all rain runoff from our roads and proposed parking areas, as well as a statement indicating our project will have little or no affect on Woahink Lake. You might want to read this carefully, there are some pretty strong statements made that indicate our opposition's statements about lake pollution are invalid.

SECTION 6. This is the dunes access permit application and Environmental and Decision Analysis from the U. S. Forest Service indicating that they are willing to allow construction upon our securing the necessary permits from the county, which in this case would be the zone change. Also included in this permit is the environmental analysis done by the Forest Service on the property and their reasons for approving the permit application. They do a very good job stating their reasons.


SECTION 7. An accident analysis from the State Department of Transportation (Highway Division). Page 1 shows the State averages for years 1980-1984. It also shows the averages for the type of highway that is in front of our property (Highway 101). Page 2 shows the accident rate for the stretch of highway from Florence to Clear Lake Road. As you can see, except for 1982, we were below the state average of similar highways. Page 3 shows the number of deaths that have occurred on that stretch of highway from 1981-1985. There were two deaths, both of which were not in the area of our property. Our opposition has continually said there have been six or eight deaths over the past four or five years.

I might point out that we have absolutely no intention of stripping our property of its natural beauty. We have continually said that we want to create an area much like Honeyman State Park and that is what we plan to do.

RECREATION SITE INFORMATION

FOREST SERVICE RECREATION SITES	NO. OF UNITS	Ranger Station	Campground	Picnicking Site	Drinking Water	Restrooms	Information	Viewing Area	Parking	Trailer Sites (No Hook-ups)	Trailer Sites (Hook-ups)	Amphitheater	Hiking	Self-Guiding Trail	Fishing	Launching Ramp	Off-Road Vehicle Access	Handicapped
1 South Jetty Dune and Beach Access																		
2 Tyee	14																	
3 Driftwood II	90																	
4 Lagoon	40																	
5 Lodgepole	3																	
6 Waxmyrtle <i>Seasonal</i>	56																	
7 Siltcoos Dune and Beach Access																		
8 Carter Lake	22																	
9 East Carter	11																	
10 Oregon Dunes Overlook																		
11 Tahkenitch Ramp																		
12 Tahkenitch Landing	26																	
13 Tahkenitch	36																	
18 Oregon Dunes National Recreation Area Headquarters																		
OTHER RECREATION SITES																		
15 Honeyman Memorial State Park	382																	
46 Windy Cove (County)	116																	

POINT OF INTEREST

 Umpqua Lighthouse — U.S. Coast Guard Lighthouse and Restoration

CLOSURES

 Off-Road Vehicle Closure

 Beach Closure

 Seasonal Road

VISITORS MUST OBTAIN OWNER PERMISSION TO ENTER OR USE PRIOR TO ENTERING THE OREGON DUNES NATIONAL RECREATION AREA. FOR FURTHER INFORMATION, CONTACT THE SIUSLAW N.F. FOREST SUPERVISORS OFFICE IN COAST GUARD Lighthouse and Restoration AREA. OFFICE IN RECREATION AREA.

WP 19430-231

a municipal-size water supply source. A summary of hydrology parameters is given in chart form in Appendix D.

The supply areas studied were selected for ease of access, sufficient size for recharge or recharge boundaries near lakes and streams, probable sufficient depth for efficient water recovery and minimal impact on recreational or other reserved lands. Also areas that were not hydrologically well suited for municipal-sized withdrawals of water were excluded, specifically, the semi-consolidated sands from Honeyman Park north to Glenada which have low transmissivities and low areas near the beaches where salt water intrusion could be an immediate problem. A comparison of the north and south areas contemplated for development follows, showing specific differences and similarities. Maps of these areas can be seen in Exhibit 4K.

Groundwater Supply

Groundwater sources are geologically limited to the unconsolidated sand areas between the ocean and the coastal lakes. The area near Glenada is comprised of semi-consolidated sand and appears to be unsuitable for development as an adequate source. Also, most of the unconsolidated sand area south of the Siuslaw River is in the Oregon Dunes National Recreation Area created by PL92-260 in 1972 and administered by the US Forest Service. The act authorizes the Secretary to grant rights to water in the NRA if permission has been obtained from the state. The Forest Service states this permission must have been obtained prior to the effective date of the act, but we feel that interpretation may be challengeable.

However, by properly siting the wells outside the NRA and in proximity to Woahink and Siltcoos Lakes, and the area between them, sufficient water could probably be developed with the possible added advantage of a substantially lower iron content. That would eliminate the need for filtration and would be a substantial cost savings from those estimated later in the cost section of this report.

In the north area, siting is limited only by the depth of the aquifer (areas where the aquifer is less than 50 feet are unsuitable), Darlingtonia and ease of access. Most of the 18 square miles north of the Siuslaw River is suitable for development, but only the most easily developed 6.8 square miles are used as a study area.

Municipal well information is limited to Coos Bay and the two Florence wells. They demonstrate the ability of the aquifer to supply water, though they also show iron levels that require treatment.

Lane County is making application for federal funds to study groundwater quality in the north part of the study area and develop and implement a comprehensive aquifer protection plan.

The north study area is sufficient to supply all the water needs for the total study area, while the south recharge area would rely on induced recharge from the lakes to have sufficient water to supply the total study area. Our calculations indicate that 3.6 square miles receives enough net rainfall to supply the annual use of the entire region. (To protect against saltwater intrusion, a more realistic figure of 4.2 square miles should be used in the

north.) In the southern study area, there is insufficient land surface to receive adequate rainfall to recharge the aquifer annually at maximum annual withdrawal rates; however, if infiltration from Woahink and Siltcoos Lakes is included in the calculation, there is sufficient water available to supply the entire region. Any subarea use can, of course, be met by either area and usually with significantly less recharge area than the total of each study area.

The use of each of these recharge areas, or some portion of them, for groundwater withdrawal is dependent upon the configuration of the Tyee sandstone underlying the area. Because there is little information on the interface between that surface and the overlying sand, it is important to explore that interface and develop data on the depth to bedrock. Transmissibility of water is a direct function of the vertical extent of the aquifer and is dependent upon the configuration of the Tyee surface. It also is important near estuarine deposits and other discontinuities within the aquifer that could strongly influence groundwater flows, and should be tested by the developers of the well system through pump tests and careful logging of all wells drilled.

Groundwater Supply Areas Comparison

	<u>North Area</u>	<u>South Area</u>
<u>Criteria for Choice</u>	No perennial streams.	Close to large lakes for infiltration.
	No year-around lakes. Not heavily populated.	Sufficient elevation for safe removal and adequate storage.
	Would have low environmental impact.	Sufficient distance from ocean to preclude salt-water intrusion.
	Has adequate roadage.	Probable adequate aquifer depth for development.
	Has sufficient elevation to be safely usable, with respect to saltwater intrusion and adequate storage.	Proximity to roadage (101) and use area (Dunes City)
	Receives its recharge from rainfall only.	
	Existing distribution system available.	
<u>Size of Study Area</u>	6.8 square miles.	3 square miles.
<u>Recharge From Outside Area</u>	None.	10 Mft ³ /yr recharge from Woahink Lake (none from Siltcoos due to low elevation of lake).
<u>Induced Recharge From Lake</u>	Probably not significant.	25 Mft ³ /yr from Siltcoos.
<u>Saltwater Intrusion</u>	114 Mft ³ /yr fresh water needed to maintain a 10 ft./mile gradient to protect against salt-water intrusion.	No fresh water needed to maintain a gradient as a sufficient fresh water exists between the study area and the beach. That is, a 25 ft./mile gradient will exist with rainfall alone in area west of study area.

Mft³ = million cubic feet



APPLICATION AND PERMIT TO CONSTRUCT APPROACH ROAD

PERMIT NUMBER

HIGHWAY DIVISION

HIGHWAY NAME Oregon Coast		MILEPOINT 194.85	ENGINEER'S STATION 211 + 25
HIGHWAY NUMBER 9	COUNTY Lane	SIDE OF HIGHWAY <input type="checkbox"/> NORTH <input checked="" type="checkbox"/> EAST <input type="checkbox"/> SOUTH <input checked="" type="checkbox"/> WEST	APPROACH TO SERVE RV Campground & Re
BETWEEN OR NEAR LANDMARKS West Lake AND Florence		HIGHWAY REFERENCE MAP AND ATTACHED DRAWING NUMBERS 4B-13-7	
APPLICANT NAME AND ADDRESS Larry Hague & Michael Buckwald 11488 East Mapleton Rd. Mapleton, OR		BOND REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO REFERENCE OAR 734-50-025(6)	AMOUNT OF BOND \$ ---
		INSURANCE REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO REFERENCE OAR 734-50-025(3)	<input checked="" type="checkbox"/> ADMINISTRATIVE FEE <input type="checkbox"/> TEMPORARY DEPOSIT
		AMOUNT \$ 50.00	CHECK NUMBER 1090
		DISTRICT MAINTENANCE SUPERVISOR X <i>[Signature]</i>	DATE COMPLETE APPLICATION RECEIVED 6-9-86
		REGION ENGINEER X	DATE
UTILITY PERMIT SUPERVISOR X		APPROVAL DATE	
APPLICANT X <i>Larry Hague</i>	APPLICATION DATE 6/6/86	APPROACH ROAD COMPLETION DATE: REFERENCE: OAR 734-50-050(4) June, 1987	

The applicant declares that he/she is the owner or lessee of the real property adjoining the above described highway and has the lawful authority to apply for this permit. When this application is approved by the Department of Transportation, the applicant is subject to the terms and provisions contained herein and attached hereto; and the terms of Oregon Administrative Rule, Chapter 734, Division 50, which is by this reference made a part of this permit. Copies of the Rule may be obtained from the District Maintenance Supervisor's office.

Issuing of permits under these regulations is not a finding of compliance with the statewide planning goals or the acknowledged comprehensive plan for the area. Permits are issued subject to the approval of city, county or other governmental agencies having either joint supervision over the section of highway or authority to regulate land use by means of zoning and/or building regulations. It shall be the applicant's responsibility to obtain any such approval including, where applicable, local government determination of compliance with the statewide planning goals. (OAR 734-50-055)

SPECIAL PROVISIONS

1—If the proposed application requires traffic control devices and/or special road construction, the applicant shall provide a copy of this application to the affected local government. The original application must be signed by the local government official.

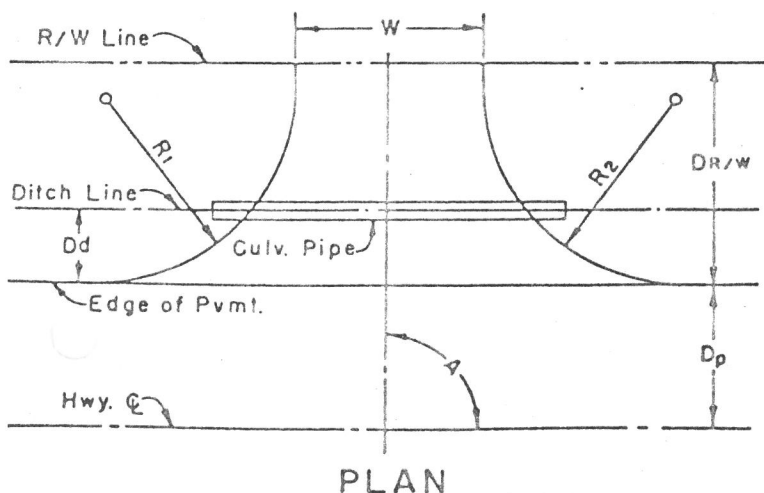
LOCAL GOVERNMENT OFFICIAL SIGNATURE X	TITLE	DATE
--	-------	------

2—The applicant or his contractor shall notify the District Maintenance Supervisor's office at least 48 hours in advance of commencing work and after completing the work covered by this permit. (OAR 734-50-040) Telephone Number:

3. Applicant to modify cut slope for adequate sight distance and maintain brush.

4. Reference to OAR 734-50-035, should average peak summertime traffic generate sufficient volumes to justify a left turn refuge, it will be constructed at applicant's expense.

TYPE 2 APPROACH ROAD — PAVED



NOTE: All material and workmanship shall be in accordance with the current State of Oregon Standard Specification for Highway Construction.

W = 32'	R ₁ = 20'	R ₂ = 20'	A = 90'
D _p = 19'	D _d = 6'	D _{R,W} = 31'	
CULVERT PIPE REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
TYPE Concrete, Galv. Metal			
DIAMETER (INCHES) 18"		LENGTH (FEET) 40'	
STONE BASE	SIZE AND TYPE 1 1/2-0	COMPACTED THICKNESS (INCHES) 4	
STONE LEVELING COURSE	SIZE AND TYPE 3/4-0	COMPACTED THICKNESS (INCHES) 4	
ASPHALTIC CONCRETE PAVEMENT	CLASS C	COMPACTED THICKNESS (INCHES) 4	



Department of Transportation
STATE HIGHWAY DIVISION
DISTRICT 5

3620 GATEWAY, SPRINGFIELD, OREGON 97477 PHONE 726-~~2252~~ 2552

IN REPLY REFER TO
FILE NO.:

June 16, 1986

Mr. Michael Buckwald
PO Box 239
Florence, OR 97439

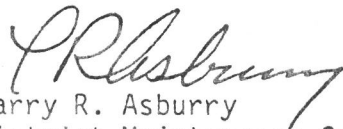
Dear Mr. Buckwald:

Enclosed is a copy of the collision diagram I promised. The area covered is from approximately the entrance to Honeyman State Park to West Lake Road. The time period covered in this diagram is 1981 thru 1985. A quick look at the data would indicate a majority of the accidents involved ingress or egress to the highway from side roads or driveways. These accidents have been highlighted.

Also enclosed are copies from our 1984 Traffic Accident and Accident Rates publication. I have highlighted the area of concern which in this case covers from Florence to West Lake Road. The accidents per million vehicle miles in 1982 were above the statewide average. The remainder of the time covered were below the statewide average.

If you have any questions, please contact us.

Sincerely,


Larry R. Asburry
District Maintenance Supervisor

LRA:rc

Enclosure

OREGON STATE HIGHWAY DIVISION
TRAFFIC ENGINEERING SECTION

COLLISION DIAGRAM

Compiled by AC Date 6-6-86

City _____ County LANE
Intersection of _____
and _____
Highway and No. Oregon Coast Hwy 9 - 115101
M.P. 193.43 to 196.75 Period Fr. 1/1/81 To 12/31/85

Indicate North

LEGEND

- Person Killed
- ← Pedestrian Killed
- Person Injured
- ← Pedestrian Injured
- ← Property Damage Only
- ← Collision - Rear-end
- ← Collision - Head-on
- ← Collision - Sideswipe

Fatals:

5-27-83 2:10 PM
Clear, Dry, Day
1 Kill. 5 inj
MP 195.25
SBD Pickup struck
SBD car awaiting
Left turn, passenger
ejected.

2-27-85 4:00 PM
Clear, Dry, Day
1 Kill. 1 inj
MP 193.97
NBD Pickup crossed
center line striking
SBD car.

- ★ Awaiting Left Turn
- ← Path of Pedestrian
- ← Path of Vehicle
- ← Path of Animal
- ← Vehicle Moving
- ← Vehicle Stopped
- ← Vehicle Backing
- Properly Parked
- Improperly Parked
- ← Vehicle Overturned
- ← Vehicle Skidded

Day 23
Night 11
Total 34

Collision Type	1981-1982				1983				1984				1985				TOTAL			
	Fatal	Non-fatal	Prop. Damage	Total	Fatal	Non-fatal	Prop. Damage	Total	Fatal	Non-fatal	Prop. Damage	Total	Fatal	Non-fatal	Prop. Damage	Total	Fatal	Non-fatal	Prop. Damage	Total
Angle		2		2													2			2
Head-on													1		1		1			1
Rear-end		2	4	6	1	1		2									1	3	4	8
Sideswipe													1			1	1			1
Turning Movement		4	3	7		2		2	1	2	3			1	1		7	6		13
Parking																				
Non-collision		1		1					1		1						2			2
Fixed Object		2	1	3					2	2			1		1		3	3		6
Pedestrian																				
Backing																				
Misc.			1	1															1	1
TOTAL		11	9	20	1	3		4	2	4	6	1	2	1	4	2	18	14		34

ACCIDENTS ON STATE HIGHWAY SYSTEM

Table II shows the comparative five-year accident experience for Freeways and Non-Freeways on the State Highway System, Primary and Secondary components, and of the respective Rural and Urban portions. The Freeways shown are those portions that have been open to traffic during the entire year. Total lengths for the various categories are shown for the year 1984 only.

TABLE II
ACCIDENTS PER MILLION VEHICLE-MILES

1984						
<u>Description</u>	<u>Miles</u>	<u>Rate</u>	<u>1983</u>	<u>1982</u>	<u>1981</u>	<u>1980</u>
TOTAL						
State Highway System	7,534.14	1.59	1.63	1.58	1.89	1.93
Freeways	753.19	0.59	0.65	0.61	0.68	0.68
Non-Freeways	6,780.95	2.25	2.26	2.20	2.65	2.69
Primary System	4,876.64	1.46	1.49	1.48	1.76	1.79
Freeways	738.13	0.56	0.62	0.58	0.65	0.65
Non-Freeways	4,138.51	2.21	2.19	2.19	2.62	2.65
Secondary System	2,657.50	2.26	2.37	2.13	2.60	2.66
Freeways	15.06	1.17	1.39	1.21	1.28	1.34
Non-Freeways	2,642.44	2.41	2.50	2.24	2.76	2.81
RURAL						
State Highway System	6,815.38	0.98	1.04	1.02	1.19	1.24
Freeways	632.92	0.39	0.45	0.42	0.46	0.50
Non-Freeways	6,182.46	1.37	1.41	1.39	1.63	1.68
Primary System	4,364.05	0.83	0.88	0.89	1.03	1.08
Freeways	631.13	0.38	0.43	0.41	0.44	0.49
Non-Freeways	3,732.92	1.21	1.24	1.28	1.49	1.53
Secondary System	2,451.33	1.87	1.95	1.73	2.06	2.08
Freeways	1.79	0.98	1.73	1.59	2.01	1.08
Non-Freeways	2,449.54	1.90	1.96	1.73	2.06	2.12



Department of Fish and Wildlife

NORTHWEST REGION

ROUTE 5, BOX 325, CORVALLIS, OREGON 97330-9446 PHONE 757-4186

June 10, 1986

Mr. Michael Buckwald
P.O. Box 239
Florence OR 97439

Dear Mr. Buckwald,

This is in response to your letter requesting information on rare or sensitive wildlife on your property south of Florence. As I indicated on the phone we have no records of "sensitive" species or habitats on or adjacent to the property, although we have only driven by the area. Most species are sensitive to human disturbance and habitat loss, but I think we can assume that most species found on your property are found along the entire coastal dune area.

We will be down on the coast this week and will try to take a closer look at the area. If your project is approved we would be happy to work with you and advise ways to minimize impacts to wildlife living on the area. Feel free to call at any time.

Sincerely,

Charlie Bruce

Charlie Bruce
Biologist

cbs

xc: Jerry MacLeod

The south channel carries more water than the north. The upper 2/3 of the draw has sections with flowing water and sections where the channel is dry. Vegetation is dense vine maple indicating moisture exists year around some 2-4 feet below the channel. The lower 1/3 flattens out with a flowing stream of about 12 inches wide and 1 inch deep. Skunk cabbage and alder are the main species in this section. The stream enters a culvert and exits on the east side of 101 below the channel bottom. The stream upwells and meanders to the lake. There is a small sand deposit where it enters the lake. The deposit is about 3 feet long and 1 foot wide indicating the present erosion is very low. The estimated distance from where the stream leaves the parcel to the lake is 225 feet. The gradient is low.

There is a third draw along the north property line of the 8 acre parcel. It is off the subject parcel. No activity is expected to impact this stream.

SOIL

A soil survey was conducted by myself on the parcel using standards set forth by the Soil Conservation Service. A 3 inch diameter hand-powered auger was used to examine the soil to a depth of at least 48 inches. Infiltration tests were made following a procedure outlined by Constantz (1983). All other properties of the soil were estimated in the field, i.e. texture, horizons, etc. Location of auger holes are shown of the accompanying map and description of the holes are in Appendix A.

The parcel has 3 major soil series. They are developing in dune sand. The easterly portion has old dune sand that has undergone a great deal of weathering and soil developing. The westerly side has more recent sand. It has been, for the most part, stable for hundreds of years. There is a small area of active dunes (0.7 acres) and about one half of an acre of poorly drained soil. (Soil A)

Table 1 lists the soils, their acreage, and percent of the total. As the table shows, the Bullards and Ferrelo soils make up 53% of the parcel and Waldport another 42%. Bullards is the oldest soil on the parcel. It is a deep, well-drained loam soil. (See appendix B for more details). Ferrelo is a deep, well-drained loam to sandy loam soil. It is less well developed. These two soils occur intermingled. They are shown as a complex on the map. Besides these two soils occurring in this complex, there is also a small amount of a soil that has a seasonal water table. This

TABLE 1. Acreage of Soils on 26 Acre parcel.

<u>Soil Mapping Unit</u>	<u>Acres</u>	<u>% of Total</u>
Soil A 0-5%	0.6	2.3
Bullards-Ferrelo 0-30%	13.8	53.0
Dune Lands 5-35%	0.7	2.7
Waldport 5-15%	1.8	7.0
Waldport 5-30%	4.4	17.0
Waldport 30-60%	<u>4.7</u>	<u>18.0</u>
	26.0	100.0

soil occurs in small depressional areas (20-40 feet diameter). Two auger holes in this unnamed soil showed the water table comes to within 15-20 inches of the surface during winter months. The Bullard-Ferrelo complex contains approximately 65% Bullards, 20% Ferrelo, and 15% of a soil with the seasonal water table.

Waldport soils are relatively young soils that have a loamy sand surface underlain by dune sand. They are excessively well drained. That is to say, they do not retain moisture very well. Waldport soils do not support commercial timber production due to their droughtiness.

The mapping unit called Dune Lands is as its name implies. It is areas of unvegetated or very sparsely covered sand.

Bullards, Ferrelo, and Waldport soils all have high infiltration rates. They have 1-5" of organic matter on the surface plus a loam, to a sand texture on the surface. Two infiltration tests were run on the subject parcel using a double ring infiltrometer. One test was run on the Waldport soil and another on the Bullards soil. Waldport soil represents the most porous soil on the property. Bullards soil is a more weathered soil and has a slower rate of handling water.

The test used was designed for use in areas where access is difficult. It measures saturated infiltration rates. There is a 2-4" head of water used. Test results have been modified to represent unsaturated flow with no head. Under natural rainfall, saturated flow is rare and a head does not exist.

Test results show the Waldport soil has the ability to absorb 156" of water per hour. Bullards soils infiltration rate is 32"/hr. Ferrelo soils have a rate somewhere in between these two rates. Both of these rates are far in excess of any storm intensity at Florence. The Oregon State Highway Department uses Graph 1 to estimate storm run-off for streams in the Florence area. The highest rainfall intensity on the graph is 4" per hour. Clearly the soils on the parcel have the ability to absorb many times the highest rainfall intensities. Run-off from the undisturbed areas will be nil. Old skid trails in the parcels show little or no erosion. The south draw outlet to the lake shows no appreciable sediment load.

Run off from impermeable surfaces such as roads, parking lots, and roofs can be controlled easily on these parcels. The development will occur on the Bullards-Ferrelo complex where the topography is undulating. There are small depressional areas where culverts can be exhausted. These small depressions will act as infiltrating basins and sediment traps.

1.650-1.1-1

17000000



GRAPH 1

The two draws will likely have trailer pads and roads close to them. I would recommend designing the location of culverts to exhausted in depressions wherever possible. Where that is not possible, design the culvert outlet so that there is little or no drop between the end of the culvert and the ground. This will prevent increasing the water velocity. The outlet should be on natural ground or on rocks. Outlets should reduce velocity and promote the spreading of water. This will allow infiltration into these sandy and loamy soils. Run-off should not be a problem with careful culvert and ditch construction.

All activities that result in producing bare soil areas should be covered as quick as possible to prevent wind and water erosion. That can be done with grass straw mulch, beach grasses and a quick germinating annual such as annual ryegrass.

Sediment traps could also be installed in the two draws if you anticipate any major cutting and filling next to the draws. The traps need to be little more than basins dug in the present channel to create a slower water velocity. This will allow the sand to drop out.

With proper culvert spacing, design, and location run-off from roads and parking lots should not result in excessive sediment reaching the Lake. Mulching and revegetating will greatly reduce long term erosion.

ON-SITE WASTE DISPOSAL

Waldport, Ferrelo and Bullards soils are all suitable soils for on-site waste disposal of domestic sewage. Waldport soils are better suited on this parcel because of their location, texture, and elevation. Map 2 shows an area for on-site waste disposal that should have a high chance of being approved by the DEQ. This area was chosen because it has deep, excessively well-drained sands that are away from stream channels, give maximum distance from Woahink Lake, and will require the minimum amount of area, hence the minimum amount of disturbance.

Schlieker, et.al. (1974) describe ground water conditions of the Florence area. They report that water table in levels in the dunes are a "subdued replica of the surface". In other words the water table rises with elevation. Using their Figure 10, I have sketched a cross section of how the property might look. Their work indicates that the general flow of ground water is toward the ocean. (See Figure 1).

The estimated elevation of the proposed waste disposal area is 200 feet. Elevation of Hwy 101 is 88 feet and Woahink Lake is 38 feet. The amount of unsaturated sand below the disposal area is estimated to be 50 to 100 feet. This is more than adequate to effectively treat domestic waste water. The Department of Environmental Quality states in OAR Chapter 340 Division 71, 72, 73 pages 71-43, "A permanent water table shall be 4 feet or more from the bottom of the absorption facility". Clearly the proposed site exceeds this by 10 to 20 times.

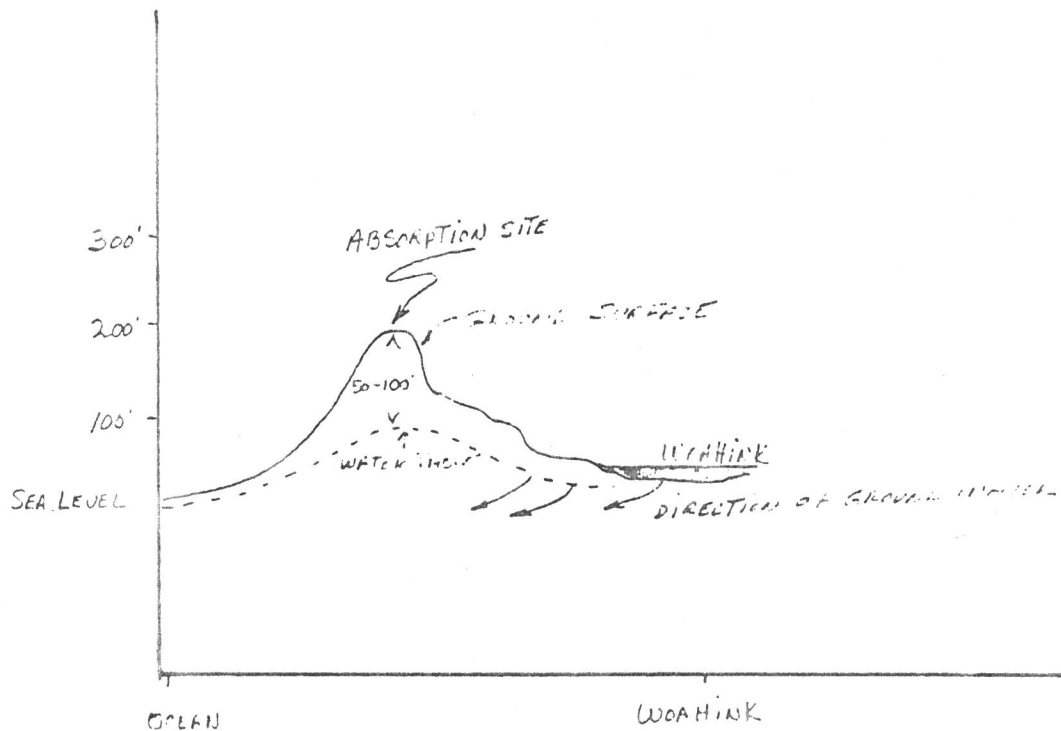


Figure 1. Cross section of water table through parcel.

Research on treatment of septic tank effluent indicated that 2 feet of well aerated medium sand is adequate to reduce suspended solids (SS), biological oxygen demand (BOD) by 95-98%. Results of this research has lead to the development and use of sand filters in the U.S. After effluent has passed through 2 foot of sand, DEQ will allow putting this liquid into trenches that have only 2 foot of separation between the trench bottom and a permanent water table in gravels and sands. Again the proposed site has much more than 2 feet of well aerated sand.

In my opinion, waste water from the proposed development can be treated on many parts of the 26 acres. The high area of Waldport soil shown on the map represents the most suitable. There are large enough areas of slopes less than 10% to construct the absorption area. Effluent will be adequately treated before it enters the water table. General flow of the water table is toward the ocean according to work done by Lane County (1979). Thus impacts to Woahink Lake should be extremely low.

The south draw does have running water most of the year near where it crosses the highway. Water feeding that stream is most likely coming from easterly portion of the parcel plus some water from the ridge of sand (Waldport Soil). Again the separation of unsaturated sand and the water table will adequately treat the effluent before it enters the stream, in my opinion. The DEQ must approve the site and the design which insures the system will be adequate.

The flow of waste water during maximum use is estimated to be 7000 gallons. This is equivalent to 15.5 homes. This flow would likely only occur for less than 100 days per year in the summer months. This development is much less of a threat to the lake than the present septic system of homes adjacent to the lake. Some of those systems are old and many operate year round.

I feel confident that with the current DEQ rules and state-of-the-art system that little if any impact will occur to Woahink Lake due to on-site waste disposal from this project.

CONCLUSIONS

1. Over 90% of the parcel has soils with a high infiltration rate. The rates are at least 10 times higher than the highest rainfall intensities experienced at Florence. Run-off from undisturbed areas will be little or nothing.
2. Old skid trails 25-30 years old show little or no erosion.
3. There is a large area of Waldport soils that are well suited for on-site waste disposal. The area has a 50-100 vertical feet of unsaturated fine sand between the absorption field and a water table. Lane County documents indicate that ground water moves slowly toward the ocean from Woahink Lake. A properly designed waste water system will, in my opinion, prevent any adverse impacts to Woahink Lake.
4. Approximately 7000 gallons of waste water will be generated per day during peak use. This is using DEQ design numbers. Actual flow will be less. Heavy use of the park is expected to last 100 days during summer months when the water table will be at its lowest.
5. The proposed area for the absorption field is located away from any streams and has a maximum elevation above the water table.
6. During peak flows the park will generate the same amount of effluent as 15 homes. This amount is small compared to the number of homes that now ring Woahink Lake.
7. With proper culvert spacing, design, and location run off from roads and parking lots should not result in excessive sediment reaching the lake. Culvert outlets can be exhausted into small depressional areas in the Bullards-Ferrelo Soil Complex. Mulching and revegetation will greatly reduce long term erosion.
8. The proposed activity on this 26 acres can be accomplished without adverse impacts to ground water and Woahink Lake. Careful planning, and use of current on-site waste disposal methods, road construction, culvert placement, and mulching can result in a development that is compatible with surrounding uses.

Steve Wert

LITERATURE

1. Constantz J. (1983) Adequacy of a Compact Double-Cap Infiltrometer compared to the ASTM Double-Ring Infiltrometer. In proceedings of Nat Conf on Advances in Infiltration Chicago, Ill.
2. Lane County Environmental Health Division (1979) Lane County Coastal Domestic Water Supply Study; Lane County Oregon.
3. Schlicker et.al. (1974) Environmental Geology of Coastal Lane County Oregon; State of Oregon Depart. of Geology and Mineral Industries.
4. Small Scale Waste Management Project Un of Wis. 1978, Management of Small Waste Flows. EPA-600/2-78-173. Cin, Ohio.
5. State of Oregon (1984) On-Site Sewage Disposal Rules OAR Chap 340-71, 72, 73.

APPENDIX A
SOIL LOG ON HAGUE-BUCHWALD PROPERTY

June 7, 1986

- #1. Bullards Series drilled to 48"
- #2. 0-4" Dark greyish sandy loam
4-26" Shotty loam
26-48" Mottled loam with a few slightly cemented iron bands
- #3. 0-4" Dark greyish sandy loam
4-15" Shotty loam
15-40" Mottled loam with iron bands
- #4. Bullards Series
0-36" shotty loam
36-46" shotty with slightly cemented iron bands
- #5. Ferrelo Series
0-15" Dark grey loamy sand
15-40" Sandy loam
- #6. Ferrelo
- #7. Ferrelo
- #8. Waldport
0-36" Sand & loamy sand
36"+ dune sand
- #9 #10 Waldport Series
- #11. Bullards drilled to 48"
- #12 #13 Bullards
0-38" loam
38"+ sandy loam
- #14. Soil A
0-2" Black Organic matter
2-30" Dark grey, mottled loam very poorly drained
- #15 Bullards Series
- #16 Bullards Series

Appendix A (cont.)

#17 Waldport

#18 Waldport - Test site for infiltration test

#19 Bullards - Test site for infiltration test.

APPENDIX B

Map Symbol & Soil Name

		Acreage	Capability Class
230B	BULLARDS-FERRELO LOAMS, 0-7% slopes	510	IIIe
231C	BULLARDS-FERRELO LOAMS, 7-12% slopes	1,560	IIIe
232D	BULLARDS-FERRELO LOAMS, 12-30% slopes	1,210	IVe
233F	BULLARDS-FERRELO LOAMS, 30-60% slopes	850	VIe

(e = risk of erosion)

Deep, well drained soil on rolling to deeply dissected marine terraces. Agriculture - poor; Urban - fair; Woodland - good.

CLASSIFICATION

Depth from Surface	USDA Texture	Unified	AAS-0
50% Bullards loam:			
0-4 inches	Dark grayish brown loam;	SM	A-2 or A-4
4-36 inches	Subsoil is dark reddish brown shotty loam with 20 to 30 percent strongly cemented nodules. Substratum to a depth of 60 inches or more is strong brown fine sandy loam or loamy fine sand.	SP, SM	A-2 or A-3
35% Ferrelo loam:			
0-10 inches	Very dark grayish brown loam;	ML	A-4
10-47 inches	Subsoil is dark brown loam. Substratum to a depth of 60 inches or more is yellowish brown fine sandy loam with weakly cemented lenses.	ML or SM SM	A-4 A-2-4 or A-4

As mapped, this complex may include small areas of Lint, Bandon, Netarts and Westport soils.

Estimated Soil Properties

Permeability	Bullards = Moderate; Ferrelo = Mod. to moderately rapid
Water Capacity	Bullards = 5-7 inches; Ferrelo = 6-8 inches
Rooting Depth	40-60 inches
Runoff	230B = Slow; 231C, 232D = Medium; 233F = Rapid
Water Erosion	230B = Slight to Moderate; 231C = Moderate; 232D = Moderate to High; 233F = High
pH Values	Bullards = 4.6-6.0; Ferrelo = 5.1-6.0 Very strongly to medium acid
Corrosivity	Steel: Bullards = Moderate; Ferrelo = Low Concrete: Bullards = Low; Ferrelo = Moderate
water Table	72+ inches
Bedrock	60+ inches
Hydrologic Group	B

MAIN USE: Timber production

OTHER USES: Homesites, wildlife habitat, recreation, watershed use.

CROPS, PASTURE, WOODLAND - PREDICTED YIELDS

SOIL NAME, MAP SYMBOL, & LAND CAP. CLASS.	PASTURE		HAY		PERENNIAL RYEGRASS SEED		SWEET CORN		BUSH BEANS		PEPPER- MINT OIL		WINTER WHEAT		FILEBERTS		STRAW- BERRIES		GRAPES		CHRIST- DOUGLAS- MAS FIR TREES	
	ACR		Tons/A		Lbs/A		Tons/A		Tons/A		Lbs/A		Bu/A		Tons/A		Tons/A		Tons/A		3/	
	NIRR	IPR	NIRR	IPR	NIRR	IPR	NIRR	IPR	NIRR	IPR	NIRR	IPR	NIRR	IPR	NIRR	IPR	NIRR	IPR	NIRR	IPR	Site Class	
BULLARDS- FERRELO COMPLEX																						
230B	IIIe	8	12	3 2/																	S	III
231C	IIIe	8	12																		S	III
232D	IVe	8																			D	III
233F	VIe	6																			D	III

1/ Site Class I = Site Index 185+; II = 155-184; III = 125-154; IV = 95-124; V = 75-94.

2/ Cool moist summers inhibit proper curing of hay and grain crops; a single entry means grass hay non-irrigate

3/ S = Satisfactory; D = Excessive slope (30-50%, 50%+)

HAZARDS, LIMITATIONS - SUGGESTIONS FOR MANAGEMENT

- This soil is suited to the production of Douglas-fir, Sitka spruce, western hemlock and shore pine: Site Class III, Site Index 140-150
- An onsite investigation is recommended for woodland owners interested in intensive management.
 - Trees are subject to windthrow.
 - Droughtiness in summer months may decrease seedling survival. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants.
 - Roads and landings can be protected from erosion by constructing water bars and by seeding cuts and fills.
 - Tractor methods of harvesting timber generally are suitable.

S O I L I N T E R P R E T A T I O N S R E C O R D

233F (21G) BULLARDS-FERRELO LCAMS. 30 TO 60 + CENT SLOPES
FERRELO PART

THE FERRELO SERIES CONSISTS OF WELL DRAINED SOILS FORMED IN UNCONSOLIDATED SANDY MATERIALS DEPOSITED BY WIND AND WATER ON OLD MARINE TERRACES. ELEVATION IS 15 TO 400 FEET. AVERAGE ANNUAL PRECIPITATION IS 55 TO 80 INCHES. TYPICALLY, THE SURFACE LAYER IS DARK REDDISH-BROWN LOAM ABOUT 18 INCHES THICK. THE SUBSOIL IS DARK BROWN FINE SANDY LOAM, ABOUT 23 INCHES THICK AND HAS IN IT THIN, DISCONTINUOUS, REDDISH-BROWN LENSES THAT ARE VERY HARD WHEN DRY. BELOW 40 INCHES ARE YELLOWISH-BROWN LOAMY FINE SAND AND LIGHT BROWN FINE SANDY LOAM LAYERS.

ESTIMATED SOIL PROPERTIES

ESTIMATED SOIL PROPERTIES																			
DEPTH (IN.)		USDA TEXTURE		UNIFIED		AASHTO		FRACT. 3/16 IN. (PCT)		PERCENT OF MATERIAL LESS THAN NO. 10 (PCT)		PERCENT OF MATERIAL LESS THAN NO. 40 (PCT)		PERCENT OF MATERIAL LESS THAN NO. 200 (PCT)		LIQUID LIMIT		PLASTICITY INDEX	
0-10		L		ML, SM		A-4		0		100		100		65-95		35-75		-	
10-47		L, FSL, SIL		ML, SM		A-4		0		100		90-100		65-95		35-75		-	
47-60		LFS, FSL, FS		SM		A-2, A-4		0		100		90-100		60-85		20-50		-	

DEPTH (IN.)		CLAY (PCT)		MOIST BULK DENSITY (G/CM3)		PERMEABILITY (IN/HR)		AVAILABLE WATER CAPACITY (IN/IN)		SOIL REACTION (PH)		SALINITY (MMHOS/CM)		SHRINK-SWELL POTENTIAL		EROSION FACTORS		WIND EROD. GROUP		ORGANIC MATTER (PCT)		CORROSIVITY	
0-10		10-18		1.10-1.30		0.6-2.0		0.11-0.18		5.1-6.0		-		LCb		.24		5		4		5-8	
10-47		10-18		1.20-1.40		2.0-6.0		0.12-0.17		5.6-6.0		-		LCb		.20							
47-60		2-10		1.40-1.60		2.0-6.0		0.08-0.13		5.6-6.0		-		LCb		.20							

FLOODING				HIGH WATER TABLE				CEMENTED PAD				BEDROCK				SEWESIDENCE				HYDRO PCTENT'L			
FREQUENCY		DURATION		MONTHS		DEPTH (FT)		KIND		MONTHS		DEPTH (IN)		HARDNESS		DEPTH (IN)		HARDNESS		INIT. TOTAL		GRP	
NONE						26.0						-		264						-		P	

SANITARY FACILITIES

CONSTRUCTION MATERIAL

SEPTIC TANK ABSORPTION FIELDS	SEVERE-SLOPE	ROADFILL	FCGR-SLOPE
SEWAGE LAGOON AREAS	SEVERE-SEEPAGE, SLOPE	SAND	IMPRCABLE-EXCESS FINES
SANITARY LANDFILL (TRENCH)	SEVERE-SEEPAGE, SLOPE	GRAVEL	IMPRCABLE-EXCESS FINES
SANITARY LANDFILL (AREA)	SEVERE-SEEPAGE, SLOPE	TOPSOIL	FCGR-SLOPE
DAILY COVER FOR LANDFILL	FCGR-SLOPE	PCNO RESERVOIR AREA	SEVERE-SEEPAGE, SLOPE

BUILDING SITE DEVELOPMENT

SHALLOW EXCAVATIONS	SEVERE-CUTBANKS CAVE, SLOPE	EMBANKMENTS DIKES AND LEVEES	SEVERE-PIPING
DWELLINGS WITHOUT BASEMENTS	SEVERE-SLOPE	EXCAVATED PONDS AGUIFER FILL	SEVERE-NO WATER
DWELLINGS WITH BASEMENTS	SEVERE-SLOPE	DRAINAGE	DEEP TO WATER
SMALL COMMERCIAL BUILDINGS	SEVERE-SLOPE	IRRIGATION	SLOPE
LOCAL ROADS AND STREETS	SEVERE-SLOPE	TERRACES AND DIVERSIONS	SLOPE
LAWNS, LANDSCAPING AND GOLF FAIRWAYS	SEVERE-SLOPE	GRASSED WATERWAYS	SLOPE

REGIONAL INTERPRETATIONS

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S I L I N T E R P R E T A T I O N S R E P O R T

233F (21G) BULLARDS-FERRELO LEAMS, 30 TO 60 PERCENT SLOPES
BULLARDS PART

THE BULLARDS SERIES CONSISTS OF WELL DRAINED SOILS FORMED ON OLD MARINE TERRACES IN WATER AND WIND DEPOSITED SEDIMENTS. THESE SOILS ARE ON THE NEARLY LEVEL TOPS AND STEEP SIDES OF DEEPLY DISSECTED UPLIFTED TERRACES AT ELEVATIONS OF 50 TO 600 FEET. TYPICALLY, THE SURFACE LAYER IS DARK BROWN AND STRONG BROWN SANDY LOAM ABOUT 38 INCHES THICK OVER A LIGHT OLIVE BROWN LOAMY FINE SAND AND SAND THAT EXTENDS TO 60 INCHES OR MORE. AAPT IS 55 TO 60 INCHES. AAST IS 51 TO 53 F. THE FEP IS 150 TO 240 DAYS.

ESTIMATED SOIL PROPERTIES												
DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHTO	FRACT (%)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.	LIQUID LIMIT	PLAS- TICITY INDEX					
0-4	L	SM, ML	A-2, A-4	6	100 55-100 60-70 30-55	15-25	NP-5					
4-58	GR-SL, GR-L	SM	A-2, A-4	6	100 50-75 20-60 15-40	15-25	NP-5					
58-61	LFS, S	SP-SM, SM	A-2, A-3	6	100 100 50-75 5-25	-	NP					
DEPTH (IN.)	CLAY (PCT)	MOIST BULK DENSITY (G/CM ³)	PERMEA- BILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK- SWELL POTENTIAL (IN)	EROSION EASINESS (K)	WIND EROD. (G/CM ²)	ORGANIC MATTER (PCT)	CORROSIVITY STEEL CONCRETE	
0-4	8-18	1.20-1.40	0.6-2.0	0.11-0.13	4.5-5.5	-	LCB	.20	5	3	4-7	MODERATE LCB
4-58	8-18	1.20-1.40	0.6-2.0	0.06-0.10	4.5-6.0	-	LCB	.17				
58-61	2-5	1.20-1.80	2.0-6.0	0.05-0.07	5.6-6.0	-	LCB	.24				
FLOODING				HIGH WATER TABLE		CEMENTED PAV.		PERFECT		RESIDENCE		HYDRO- POTENTIAL
FREQUENCY	DURATION	INCHES	DEPTH	KIND	MONTHS	DEPTH	HARDNESS	DEPTH	HARDNESS	INIT.	TOTAL	FRST
NONE			2.9					2.9				

SANITARY FACILITIES

CONSTRUCTION MATERIAL

SEPTIC TANK ABSORPTION FIELDS	SEVERE-SLOPE	ROADFILL	FCCR-SLOPE
SEWAGE LAGGON AREAS	SEVERE-SEEPAGE, SLOPE	SAND	FREEABLE
SANITARY LANDFILL (TRENCH)	SEVERE-SEEPAGE, SLOPE	GRAVEL	IMPERMEABLE-TOO SANDY
SANITARY LANDFILL (AREA)	SEVERE-SLOPE	TOPSOIL	FCCR-SMALL STONES, SLOPE
DAILY COVER FOR LANDFILL	FCCR-SLOPE	POND RESERVOIR AREA	SEVERE-SLOPE

BUILDING SITE DEVELOPMENT

SHALLOW EXCAVATIONS	SEVERE-CUTBANKS, GAVE, SLOPE	EMBANKMENTS DIKES AND LEVEES	SEVERE-SEEPAGE
DWELLINGS WITHOUT BASEMENTS	SEVERE-SLOPE	EXCAVATED POND ACQUIFER FEE	SEVERE-NO WATER
DWELLINGS WITH BASEMENTS	SEVERE-SLOPE	DRAINAGE	DEEP TO WATER
SMALL COMMERCIAL BUILDINGS	SEVERE-SLOPE	IRRIGATION	DRUGHTY, SOIL ERODING, SLOPE
LOCAL ROADS AND STREETS	SEVERE-SLOPE	TERRACES AND DIVERSIONS	SLOPE, SOIL ERODING
LAWS, LANDSCAPING AND GOLF FAIRWAYS	SEVERE-SLOPE	GRASSED WATERWAYS	SLOPE, DRUGHTY

GENERAL INTERPRETATIONS

United States
Department of
Agriculture

Soil
Conservation
Service

954 13th Avenue West
Eugene, OR 97402
Phone: 687-6436

Lane County

Map Symbol & Soil Name

			Acreage	Capabilit. Class
205C	WALDPORT FINE SAND, 0-12% slopes	132C	1,700	VIle
206D	WALDPORT FINE SAND, 12-30% slopes	132E	1,000	VIle
207H	WALDPORT FINE SAND, 30-70% slopes	132G	650	VIle

(e = risk of erosion)

Deep, excessively drained soil on large, gently sloping or undulating, stabilized dunes and narrow dune ridges. Agriculture - poor; Urban - fair on gentle slopes, poor on steep slopes; Woodland - poor.

Depth from	USDA Texture	Unified	AAEMTC
Surface			
	The surface is covered with a mat of partially decomposed leaves, needles, and twigs about 2 inches thick.		
0-5 inches	The surface layer is very dark gray fine sand.	SM	A-2
5-60+ inches	The underlying material to a depth of 60 inches or more is yellowish brown fine sand.	SM, SM-SP	A-2, A-3

As mapped, this unit includes small areas of Yaquina, Netarts, Neceta and Bandon soils.

Estimated Soil Properties

Permeability	Very rapid
Water Capacity	3-4 inches
Rooting Depth	60 inches or more
Runoff	Slow
Water Erosion	205C, 206D = Low; 207H = Moderate
Soil Blowing	High in areas where vegetation is removed.
pH Values	5.1-6.0 Strongly to medium acid
Corrosivity	Steel = High; Concrete = High
Water Table	72+ inches
Bedrock	60+ inches
Hydrologic Group	A/B

MAIN USE: Wildlife, recreation, water supply.

OTHER USES: Homesites*, pasture, timber.

* Very restricted on 207H because of steepness and poor stability.

CROPS, PASTURE, WOODLAND - PREDICTED YIELDS

SOIL NAME AND MAP SYMBOL	LAND CAP. CLASS.	PASTURE		FILBERTS Tons/A NIRR	GRAPES	CHRISTMAS TREES		DOUGLAS-FIR	
		AUM	IRR			1/ Site	2/ Class		
WALDPORT									
205C	VIle	4	6			B	III	3/	
206D	VIle	3				B	III	3/	
207H	VIle	2				D	III	3/	

1/ B = Droughty; D = Excessive slope.

2/ Site Class I = Site Index 185+; II = 155-184; III = 125-154;
IV = 95-124; V = 75-94

3/ Where not exposed to prevailing onshore winds.

HAZARDS, LIMITATIONS -- SUGGESTIONS FOR MANAGEMENT

When this soil is used for **Pasture**, the main limitations are droughty soil, hazard of wind, and water erosion. Slope is an additional limitation on 207H.

- In summer, irrigation is needed for maximum production of most crops. Water should be applied in amounts sufficient to wet the root zone but in amounts small enough to minimize the leaching of plant nutrients.
- Because the soil is droughty, applications of irrigation water should be light and frequent.
- Use of lime and frequent, light applications of mixed fertilizer promotes good growth of forage plants.
- Proper stocking rates, pasture rotation, and restricted grazing periods help to keep the pasture in good condition and to protect the soil from erosion.
- A soil test would help determine the amount of lime needed to correct acidity and the amount and kinds of fertilizer needed for the crop.

Generally, this soil is poorly suited to the production of **Timber**. The main concerns in producing and harvesting timber are erosion hazard, equipment limitations, seedling mortality and windthrow hazard. Treetops in all but the most sheltered areas begin to show wind damage by age 60. Prevailing onshore winds severely retard the growth of trees except in areas that are sheltered by higher ridges on the west and southwest. (207H is suited to limited timber production in areas on north and east-facing slopes that are sheltered from the prevailing onshore winds.)

- An onsite investigation is recommended for woodland owners interested in intensive management.
- Minimizing the risk of erosion is essential in harvesting timber.
- High-lead or skyline logging is more efficient than most other methods and is less damaging to the soil surface.
- Reforestation must be carefully managed to reduce competition from undesirable understory plants.
- Competing vegetation can be controlled by properly preparing the site and by spraying, cutting, or girdling to eliminate unwanted weeds, brush or trees.

5 L INTERPRETATIONS RECORDED

2060 (131E) WALPORT FINE SAND, 12 TO 30 PERCENT SLOPES

THE WALPORT SERIES CONSISTS OF DEEP EXCESSIVELY DRAINED SOILS FORMED IN DUNE SAND. THEY ARE ON UNDULATING TO HILLY TABILIZED DUNES AT ELEVATIONS OF 0 TO 500 FEET. TYPICALLY THE SURFACE LAYER IS VERY DARK GRAY AND GRAYISH BROWN FINE SAND ABOUT 5 INCHES THICK. THE NEXT LAYER IS YELLOWISH BROWN FINE SAND ABOUT 15 INCHES THICK. THE UNDERLYING MATERIAL IS FINE SAND MANY FEET THICK. AVERAGE ANNUAL PPT IS 60 TO 80 INCHES. AVERAGE ANNUAL TEMPERATURE IS 50 TO 53 DEGREES F. AND THE FROST-FREE PERIOD IS 180 TO 200 DAYS.

ESTIMATED SOIL PROPERTIES											
DEPTH (IN.)	USDA TEXTURE		UNIFIED	AASHTC	FRAC. > 3 IN. (PCT)	PERCENT OF MATERIAL LESS THAN 3 IN. PASSING SIEVE NO.				LIQUID LIMIT	PLAS- TICITY
0-5	FS		SM	A-2	0	100	100	70-80	20-30	-	NP
5-60	FS		SM	A-2	0	100	100	70-80	20-30	-	NP

DEPTH (IN.)	CLAY (PCT)	MOIST. BULK DENSITY (G/CM ³)	PERMEA- BILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHCS/CM)	SHRINK- SWELL POTENTIAL (%)	EROSION FACTORS	WIND EROD. (PCT)	ORGANIC MATTER (PCT)	CHARGESIVITY	
0-5	1-5	1.30-1.60	6.0-20	0.05-0.07	4.5-6.0	-	LOW	.17	5	1	3-8	LOW
5-60	1-5	1.30-1.60	>20	0.05-0.07	5.1-6.5	-	LOW	.17				HIGH

FLOODING				HIGH WATER TABLE				CEMENTED PAV.				FEEDBACK				RESIDENCE (HYDROCYCLIC)			
FREQUENCY	DURATION	INCHES	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT.	TOTAL	GRP	FROST	ACTING					
NONE			25.0																

SANITARY FACILITIES		CONSTRUCTION MATERIAL	
SEPTIC TANK ABSORPTION FIELDS	SEVERE-POOR FILTER,SLOPE	ROADFILL	FAIR-SLOPE
SEWAGE LAGOON AREAS	SEVERE-SEEPAGE,SLOPE	SAND	IMPERCEABLE-EXCESS FINES
SANITARY LANDFILL (TRENCH)	SEVERE-SEEPAGE,SLOPE,TOO SANDY	GRAVEL	IMPERCEABLE-EXCESS FINES
SANITARY LANDFILL (AREA)	SEVERE-SEEPAGE,SLOPE	TOPSOIL	POOR-TOO SANDY,SLOPE
DAILY COVER FOR LANDFILL	POOR-TOO SANDY,SLOPE	POOND RESERVOIR AREA	WATER MANAGEMENT SEVERE-SEEPAGE,SLOPE
BUILDING SITE DEVELOPMENT			
SHALLOW EXCAVATIONS	SEVERE-CUTEANKS CAVE,SLOPE	EMBANKMENTS DIKES AND LEVEES	SEVERE-PIPING
DWELLINGS WITHOUT EASEMENTS	SEVERE-SLOPE	EXCAVATED POONDS AQUIFER FED	SEVERE-NO WATER
DWELLINGS WITH EASEMENTS	SEVERE-SLOPE	DRAINAGE	DEEP TO WATER
SMALL COMMERCIAL BUILDINGS	SEVERE-SLOPE	IRRIGATION	BRIGHTLY,FAST INTAKE,SOIL ERODING
LOCAL PLACES AND STREETS	SEVERE-SLOPE	TERRACES AND DIVERSIONS	SLOPE,TOO SANDY,SOIL ERODING
LAWNS, LANDSCAPING AND GOLF FAIRWAYS	SEVERE-SLOPE	GRASSED WATERWAYS	SLOPE,BRIGHTLY

REGIONAL INTERPRETATIONS

SOIL INTERPRETATIONS KEY C

207H (131G) WALDPORF FINE SAND, 30 TO 70 PERCENT SLOPES

E WALDPORF SERIES CONSISTS OF DEEP EXCESSIVELY DRAINED SOILS FORMED IN DUNE SAND. THEY ARE ON UNDOULATING TO HILLY STABILIZED DUNES AT ELEVATIONS OF 0 TO 500 FEET. TYPICALLY THE SURFACE LAYER IS VERY DARK GRAY AND GRAYISH BROWN FINE SAND ABOUT 5 INCHES THICK. THE NEXT LAYER IS YELLOWISH BROWN FINE SAND ABOUT 15 INCHES THICK. THE UNDERLYING MATERIAL IS FINE SAND MANY FEET THICK. AVERAGE ANNUAL RPT IS 60 TO 80 INCHES. AVERAGE ANNUAL TEMPERATURE IS 50 TO 53 DEGREES F. AND THE FROST-FREE PERIOD IS 180 TO 200 DAYS.

ESTIMATED SOIL PROPERTIES											
DEPTH (IN.)	USDA TEXTURE	UNITIFIED	AASHTO	PERCENT OF MATERIAL LESS THAN 3 IN. (PCT)	PERCENT OF MATERIAL LESS THAN 200 PASSING SIEVE NO. 40 (PCT)	PERCENT OF MATERIAL LESS THAN 200 PASSING SIEVE NO. 100 (PCT)	PERCENT OF MATERIAL LESS THAN 200 PASSING SIEVE NO. 40 (PCT)	PERCENT OF MATERIAL LESS THAN 200 PASSING SIEVE NO. 100 (PCT)	PERCENT OF MATERIAL LESS THAN 200 PASSING SIEVE NO. 40 (PCT)	PERCENT OF MATERIAL LESS THAN 200 PASSING SIEVE NO. 100 (PCT)	PERCENT OF MATERIAL LESS THAN 200 PASSING SIEVE NO. 40 (PCT)
0-5	FS	SM	A-2	C	100	100	70-80	20-30	-	NP	NP
5-60	FS	SM	A-2	C	100	100	70-80	20-30	-	NP	NP

DEPTH (IN.)	CLAY (PCT)	MOIST BULK DENSITY (G/CM ³)	PERMEABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHCS/CM)	SHRINK-SWELL POTENTIAL (IN)	EROSION FACTORS	BINDING	ORGANIC MATTER (PCT)	CORROSIVITY
0-5	1-5	1.30-1.60	0.0-20	0.05-0.07	4.5-6.0	-	LCW	0.17	5	1	3-B
5-60	1-5	1.30-1.60	>20	0.05-0.07	5.1-6.5	-	LCW	0.17			

FLOODING			HIGH WATER TABLE			CEMENTED PAD			FEEDBACK			SUSCEPTIBILITY		
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT.	TOTAL	GRP	FIRST	ASTIC
NONE			26.5					260						

SANITARY FACILITIES		CONSTRUCTION MATERIAL	
SEPTIC TANK ABSORPTION FIELDS	SEVERE-POOR FILTER, SLOPE	ROADFILL	FILL-SLIFE
SEWAGE LAGOON AREAS	SEVERE-SEEPAGE, SLOPE	SAND	IMPERMEABLE-EXCESS FINES
SANITARY LANDFILL (TRENCH)	SEVERE-SEEPAGE, SLOPE, TOO SANDY	GRAVEL	IMPERMEABLE-EXCESS FINES
SANITARY LANDFILL (AREA)	SEVERE-SEEPAGE, SLOPE	TOPSOIL	FILL-TOO SANDY, SLOPE
DAILY COVER FOR LANDFILL	FILL-TOO SANDY, SLOPE	POND RESERVOIR AREA	SEVERE-SEEPAGE, SLOPE
BUILDING SITE DEVELOPMENT		WATER MANAGEMENT	
SHALLOW EXCAVATIONS	SEVERE-CUTBANKS CAVE, SLOPE	EMBANKMENTS DIKES AND LEVEES	SEVERE-PIPING
DWELLINGS WITHOUT BASEMENTS	SEVERE-SLOPE	EXCAVATED PONDS AQUIFER FILL	SEVERE-NL WATER
DWELLINGS WITH BASEMENTS	SEVERE-SLOPE	DRAINAGE	DEEP TL WATER
SMALL COMMERCIAL BUILDINGS	SEVERE-SLOPE	IRRIGATION	CHALGHTY, FAST INTAKE, SOIL BLOWING
LOCAL ROADS AND STREETS	SEVERE-SLOPE	TERRACES AND DIVERSIONS	SLOPE, TOO SANDY, SOIL BLOWING
LAWN, LANDSCAPING AND GOLF FAIRWAYS	SEVERE-SLOPE	GRASED WATERWAYS	SLOPE, CHALGHTY

REVISED INTERPRETATIONS

United States
Department of
Agriculture

Soil
Conservation
Service

954 13th Avenue West
Eugene, OR 97402
Phone: 687-6436

Lane County

Map Symbol & Soil Name

72K DUNE LAND

44

Acreage
5,870

Capability Class
VIIIe
(e = risk of erosion)

This deep, excessively drained, unit is on large, gently sloping to steeply undulating active dunes along the coast. The areas of Dune Land formed in wind-deposited sand; the sand particles are drifted and piled up by the action of the wind. Slopes are nearly level to steep and are constantly changing as the dunes shift.

Depth from
Surface

CLASSIFICATION

USDA Texture

Unified

ASNTC

Typically, this unit consists of variegated but dominantly light gray fine sand many feet thick.

As mapped, this unit may include small areas of Waldport, Yaquina and Heceta soils.

Estimated Soil Properties

Permeability	Very rapid
Water Capacity	2-4 inches
Rooting Depth	60 inches or more
Runoff	Slow
Water Erosion	Low
Soil Blowing	Extremely high
pH Values	4.5-7.3
Corrosivity	Steel = Low to Moderate
	Concrete = Low to High
Water Table	72+ inches
Bedrock	60+ inches
Hydrologic Group	A

MAIN USE: Wildlife habitat, recreation and water supply

OTHER USES: Homesites when stabilized (see 72KS Waldport fine sand, thin surface)

THERE ARE NO CROP OR WOODLAND YIELDS FOR DUNE LAND.

HAZARDS, LIMITATIONS -- SUGGESTIONS FOR MANAGEMENT

The unstable, shifting sands limit the use of this unit to **Hiking and Picnicking** in undeveloped recreational areas. The unit is suited to use by dune vehicles that have large inflated tires. Beachgrass has been planted in some areas near roads and buildings to reduce drifting. Areas so stabilized may become suitable building sites in a few years, if other conditions are favorable (see 72KS).

Septic Tank - Unstable blowing sand may expose systems. Rapid permeability may not provide Absorption adequate treatment if water table occurs within 6 feet.
Field

SOIL INTERPRETATIONS RECORD

72K (44) DUNELAND

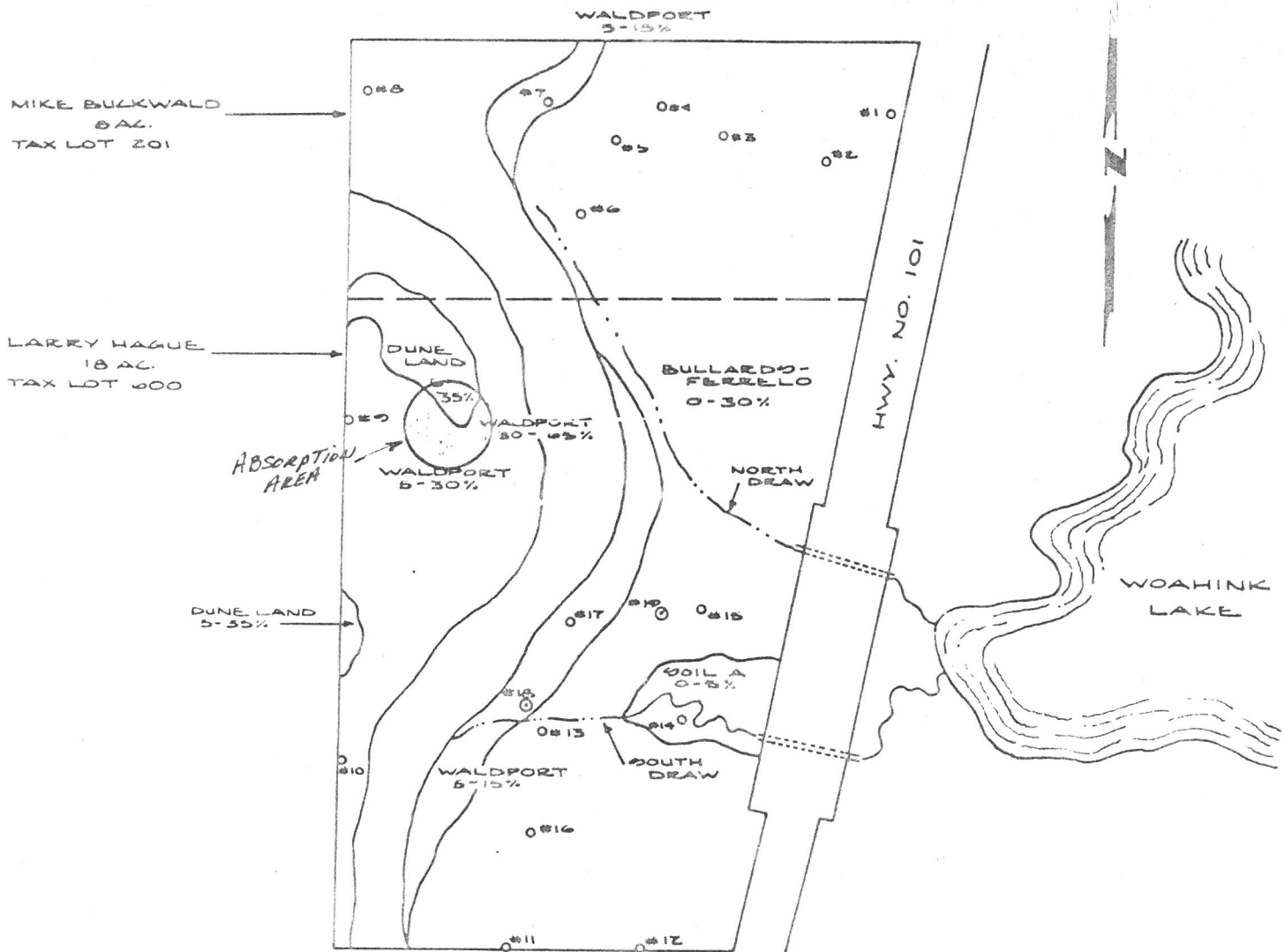
DUNELAND CONSISTS OF DEEP EXCESSIVELY DRAINED WIND SHIFTED SAND IN UNDULATING TO HILLY DUNES AT ELEVATIONS OF 10 TO 50 FEET. TYPICALLY IT IS VERY LIGHT GRAY FINE SAND MANY FEET THICK. AVERAGE ANNUAL PPT IS 60 TO 80 INCHES. AVERAGE ANNUAL TEMPERATURE IS 50 TO 52 DEGREES F., AND THE FROST-FREE PERIOD IS 180 TO 260 DAYS. SLOPES RANGE FROM 0 TO 70 PERCENT.

ESTIMATED SOIL PROPERTIES												
DEPTH (IN.)	LSDA TEXTURE	UNIFIED	AASHTO	FRACT. > 3 IN. (PCT)	PERCENT OF MATERIAL LESS THAN 2" PASSING SIEVE NO.					LIGUID LIMIT	PLASTICITY INDEX	
0-60	FS	SM, SP-SM	A-2	0	100	100	70-85	5-20		-	NP	
DEPTH (IN.)	CLAY (PCT)	MOIST DENSITY (G/CM ³)	PERMEABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHCS/CM)	SPRINK-SWELL (PCT)	EROSION FACTORS	WIND EROD. GROUP	ORGANIC MATTER (PCT)	CORROSIVITY	
0-60	1-5	1.4-1.6	>20	0.05-0.07	5.0-6.5	-	LOW	17	5	1	0-1	HIGH MODERATE
FLOODING				HIGH WATER TABLE		CEMENTED PAN		BEDROCK		SETTLEMENT		HYDRO PCTENT
FREQUENCY	CURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS (IN)	DEPTH (IN)	HARDNESS (IN)	INIT. (IN)	TOTAL (IN)	GRP
NONE			>5			-		60				A

SANITARY FACILITIES		CONSTRUCTION MATERIAL	
SEPTIC TANK ABSORPTION FIELDS	SEVERE--POOR FILTER, SLOPE	ROADFILL	FAIR TO POOR--SLOPE
SEWAGE LAGOON AREAS	SEVERE--SEEPAGE, SLOPE	SAND	FAIR--LIMITED SIZE RANGE
SANITARY LANDFILL (TRENCH)	SEVERE--SEEPAGE, SLOPE	GRAVEL	IMPROBABLE--EXCESS FINES
SANITARY LANDFILL (AREA)	SEVERE--SEEPAGE, SLOPE	TOPSOIL	POOR--TOO SANDY, SLOPE
DAILY COVER FOR LANDFILL	POOR--TOO SANDY, SLOPE	PCND RESERVOIR AREA	SEVERE--SEEPAGE, SLOPE

BUILDING SITE DEVELOPMENT			
SHALLOW EXCAVATIONS	SEVERE--CUTBANKS CAVE, SLOPE	EMBANKMENTS DIKES AND LEVEES	SEVERE--PIPING
DWELLINGS WITHOUT BASEMENTS	SEVERE--SLOPE, UNSTABLE, BLOWING SAND	EXCAVATED PCNDS ACQUIFER FEE	SEVERE--CUTBANKS CAVE, NO WATER
DWELLINGS WITH BASEMENTS	SEVERE--SLOPE, UNSTABLE, BLOWING SAND	DRAINAGE	VERY DEEP TO WATER
SMALL COMMERCIAL BUILDINGS	SEVERE--SLOPE, UNSTABLE, BLOWING SAND	IRRIGATION	DROUGHTY, FAST INTAKE, SOIL BLOWING
LOCAL ROADS AND STREETS	SEVERE--SLOPE, UNSTABLE, BLOWING SAND	TERRACES AND DIVERSIONS	SLOPE, TOO SANDY, SOIL BLOWING
LANNS. LANDSCAPING AND GOLF FAIRWAYS	SEVERE--SLOPE, UNSTABLE, BLOWING SAND	GRASSED WATERWAYS	SLOPE, DROUGHTY

REGIONAL INTERPRETATIONS



- O - AUGER HOLE
 O - INFILTRATION TEST SITE

STEVE WERT C.P.S.S.
 ROSEBURG, OREGON
 673-4148

SOIL MAP FOR HAGUE - BULKWALD

12 - 12 - 22 - 1
 LANE COUNTY

SCALE: 1" = 200'

DATE: JUNE 14, 1986

DRAFTING: K. CALDERWOOD

CATEGORICAL EXCLUSION
AND DECISION NOTICE

WOAHINK DUNES ACCESS ROAD PERMIT

USDA Forest Service
Siuslaw National Forest
Oregon Dunes National Recreation Area

Application received from Larry Hague, 11438 E. Mapleton Road, Mapleton, Oregon, requesting a permit to develop and use approximately 1,000 feet of access road on the Oregon Dunes National Recreation Area (ODNRA), has prompted the need for analysis and decision. The road would provide vehicle access to the open sand from private property, through an area presently blocked by vegetation. (The road would serve clients of a planned commercial facility that would include off-road vehicle (ORV) rentals and overnight camping units.) *This message applies - No Commercial Activity is allowed*

The management decision is based on the expected effects of the activities from the permitted road and not the effects of the campground to the private community. The appropriateness of the development in the private community will be determined through State and County land use plans. The Forest Service permit will be issued only after the applicant's acquisition of the required State and County permits.

The road as described, will be located entirely on federally-administered lands, with no direct off-site effects on non-federal lands. The Oregon Coastal Management Program provides that a consistency determination need not be prepared for projects located on federal lands which do not directly affect non-Federal lands.

Based on a review of the expected impacts of the access road, I have determined the action will be of limited context and intensity and will produce little or no environmental effects to either the biological, physical, social, and economic components of the human environment. Therefore, the project action is categorically excluded and neither an environmental impact statement nor an environmental assessment is required (40 CFR 1508.4, Forest Service Manual 1955.2).

This determination was made considering the following factors: The permitted road, and resultant activities, involves minimal earth disturbance and does not significantly change the existing kind or amount of use on the ODNRA. There are no irreversible resource commitments or irretrievable loss of natural resources. There are no impacts on consumers, civil rights, minority groups or women, prime farmland, rangeland, wetlands or flood plains. Also, there will be no threatened, endangered, or sensitive plants or animals effected.

Pending the applicant's acquisition of all necessary State or County permits, it is my decision to grant the access road permit. Following such acquisition, implementation of this decision will take place immediately.

This decision is subject to administrative appeal pursuant to 36 CFR 211.18 (May 2, 1983). A notice of appeal must be filed with the Area Ranger within 45 days of this decision, in accordance with 36 CFR 211.18 (c).

JOHN GOOLD
Acting Area Ranger
Oregon Dunes National Recreation Area
855 Highway Avenue
Reedsport, Oregon 97467

DATE

Exhibit "C"
Page 1 of 1

ENVIRONMENTAL and DECISION, ANALYSIS
for
WOAHINK DUNES ACCESS ROAD PERMIT

USDA Forest Service
Siuslaw National Forest
Oregon Dunes National Recreation Area

INTRODUCTION

Application has been received from potential developer Larry Hague, 11438 E. Mapleton Road, Mapleton, Oregon, for a permit authorizing development and use of approximately 1000 feet of access road on the Oregon Dunes National Recreation Area. The purpose of the road is to provide vehicle access to the open sand from private property through an area presently blocked by brush and trees.

The road would serve users of a ~~limited~~ facility that would include ~~and vehicle (ORV) rentals and up to 100~~ overnight camping units.
up to 27

The appropriate management decision, to either grant or deny the permit, will be determined through an environmental analysis that will evaluate the alternatives against a criteria formulated from public and management concerns and current direction.

AFFECTED ENVIRONMENT

The area is typical of most of the NRA setting, with the open dunes screened from the highway by a buffer of brush and small timber. At this point, the forested strip is roughly a half mile wide and a north-south property line about midway divides ownership between National Forest land on the west, with private property extending east to the highway. The proposed private development is located within this strip of private land and the permitted road would begin at the property boundary and extend west through the forested area to the open sand. On the east side of the highway is more private land that extends to the shore of Woahink lake.

Within a half-mile radius, a community consisting of both residential and small businesses exists along either side of the highway. Included are a dozen or more private homes, gift shops, a myrtlewood factory, mobil home parks, a restaurant, a motel, a combination dune excursion and ORV rental concession and an airplane ride concession.

The facility would access the primary off-road vehicle area in the north half of the National Recreation Area: Siltcoos Beach Road to South Jetty Road. Users would enter the open dune area approximately midway between those boundaries, on the east edge.

Location of the proposed development is at approximately MP 195, US Highway 101, Tax lot 201, Section 22, T19S, R12W, Lane County, Oregon

For further information on the affected environment, refer to: THE OREGON DUNES NRA RESOURCE INVENTORY and FINAL ENVIRONMENTAL STATEMENT OREGON DUNES NATIONAL RECREATION AREA, MANAGEMENT PLAN.

ISSUES, CONCERNS AND OPPORTUNITIES

Based on both management and public involvement, the following Issues, Concerns and Opportunities were identified as appropriate to a management decision.

Noise impacts to adjacent (private) landowners. (Management and public concern.)

Consistency with County plans. (Management concern)

Opportunity to disperse ORV activity.

Opportunity to provide alternatives to proposed NRA development (Driftwood III campground), and overflow camping.

Potential conflicts between pedestrians and motorized recreationists, because of easier vehicle access into the area. (Management concern)

Disperse ORV rental activities on north end. (Opportunity)

Concern about increasing overall use in the area. (Management and public concern)

Concern about additional potential roads and permits. (Management and public concern)

Opportunity to encourage private recreation oriented development.

Opportunity to reduce NRA development and administration costs.

Concern of additional future roads into the area.

Concern for adequate public involvement. (Public concern)

EVALUATION CRITERIA

Based on the above Issues, Concerns and Opportunities, the following criteria were established, by which the decision to either grant, or deny the permit will be evaluated.

IMPACTS TO ADJACANT LANDOWNERS

Increased numbers of off-road-vehicles in the area.

Increased noise levels.

Increase of night-time vehicle activity.

Traffic use patterns and possible increase of trespass violations.

CONSISTENT WITH COASTAL ZONE MANAGEMENT PLAN

Decision must be consistent.

CONSISTENT WITH PURPOSE OF OREGON DUNES NRA

PL 92-260.

ODNRA Management Plan.

IMPROVED FUNCTIONAL RELATIONSHIPS

Reduce impacts where they presently occur.

Encourage private recreation oriented development as directed by the ODNRA Management Plan.

Relationship between Siltcoos and Woahink areas.

Relationship between South Jetty and Woahink areas.

Relationship between North and South activities.

MAINTAIN EXISTING SEMI-PRIMITIVE ROS CLASSIFICATION

Visual impacts.

Use Levels.

ECONOMIC IMPACTS

Permit applicant and other commercial entities.

Administrative benefits.

Administrative costs, road/no road.

EVALUATION OF ALTERNATIVES

The evaluation of the effects of either granting or denying the permit is based on the above criteria, addressing; 1) IMPACTS TO ADJACANT LANDOWNERS, 2) CONSISTANCY WITH COASTAL ZONE MANAGEMENT PLANS, 3) CONSISTANCY WITH PURPOSE OF OREGON DUNES NRA, 4) IMPROVED FUNCTIONAL RELATIONSHIPS, 5) MAINTENANCE OF THE EXISTING ROS CLASSIFICATION and 6) ECONOMIC IMPACTS.

ALTERNATIVE 1 - DENY PERMIT (no action)

IMPACTS TO ADJACANT LANDOWNERS

Landowners and residents living adjacent to ORV areas of the NRA, frequently express concern over the impacts of off-road vehicle activities on their property and quality of life. Complaints are normally those concerning noise, night-time activity and trespassing. These complaints are common to the citizens of the Woahink Lake community, who have organized as an effort to seek improvement.

The initial effect of denying the permit is that the applicant might seek dune access by another route, not requiring a road permit. This is possible by crossing two parcels of private land to the north and accessing the sand on an existing road. If accomplished, the impact of the road construction and use, would largely be felt by those property owners.

The property furthest to the north is operated as a dune ride concession and it can be expected that shared use of an already busy road, might also be unacceptable. This landowner has expressed to the Forest Service, his definite lack of interest in this option. If the developer is successful in negotiating alternative access, the other impacts should be consistent with those expected through the Forest Service route. There is some likelihood, that the access being slightly to the north, may concentrate use further from the property owners to the south, but the difference would likely be insignificant.

Projected use figures from the NRA Management plan and existing trends, indicate an expected growth of recreation use of the Oregon Dunes NRA. Management plan estimates predict that by the year 2000, approximately 2.5 million visitor days will be generated within the NRA, with total numbers of visitors probably exceeding twice that number. At present, less than half that anticipated volume has been reached but continued growth to those numbers should be expected and considered reasonable for planning goals. Increased growth, with all of the above identified adverse effects including vehicle noise, night-time activities and trespass incidents, are all existing situations and denying the permit will do nothing to change this situation.

CONSISTENCY WITH COASTAL ZONE MANAGEMENT GOALS

With this alternative, there is no Federal action to evaluate for consistency with the Coastal Zone Management Goals.

CONSISTENCY WITH PURPOSE OF THE OREGON DUNES NRA

PL 92-260, states that the purpose of establishment of the Oregon Dunes NRA, was to "... provide for the public outdoor recreation use and enjoyment of certain ocean shorelines and dunes,..."

Also, as stated in the Oregon Dunes NRA Management Plan, a primary purpose of the plan is to ".... effectively disperse recreation visitors throughout the dunes, while providing for a broad spectrum of use."

In addition, the management plan emphasizes a preference toward private development of support facilities on the periphery of the NRA and also directs that dune access will be provided near Woahink lake.

to deny the permit, may be construed as inconsistent with these goals and the evaluation criteria.

IMPROVED FUNCTIONAL RELATIONSHIPS

The area between Siltcoos River and South Jetty Road, is the primary off-road vehicle area on the north half of the NRA. This area is approximately six miles long, north and south, by two miles wide, including most of the land between U.S. 101 and the ocean. Public ORV access is limited to the extreme ends, at Siltcoos and South Jetty. To an extent, vehicle activity is dispersed throughout the area but primarily it concentrates near the accesses, creating congestion near those points and leaving much of the central dunes with little use.

Most ORV activity generates from the South Jetty area, with a small percentage operating as far south as Competition Hill, a popular play area a short distance north of the proposed access road. On the other hand, the users from Siltcoos area are more inclined to travel back and forth to South Jetty and play at both Competition and South Jetty Hill. The apparent reason for this, is that South Jetty is a day use area and users stay closer to the staging area, while most Siltcoos use is from overnight, or weekend campers that have more time to explore the area. A central attraction, common to users at both ends, is Competition Hill and the other nearby large dunes. A primary complaint, from adjacent landowners along the Woahink dunes area, is the night-time ORV noise. Much of this activity is believed to be traffic from Siltcoos Campground to this popular play area.

The Siltcoos camps are the only campgrounds at this north ORV area, with direct off-road vehicle access to the open sand ---- a major importance to most ORV campers. In 1980, a general development plan for the Siltcoos recreation area was prepared to determine the overall needs of the area and for site selection of the new ORV campground and staging area. Based on the management plan and existing uses, a need for an additional 120 campsites plus day use staging area was determined. Funding to date has allowed construction of but a portion of this development, resulting in a continued shortage of ORV facilities.

Camp space at the present time is not restrictive on an average recreation day and existing facilities accomodate this normal use. On major holiday weekends, however, where demand exceeds available space, overflow camping of an additional 100 plus units is allowed in areas not normally permitted. These overflow areas include the beach parking lot and roadside areas.

In past years, the South Jetty area was also used for overflow camping during these heavy use periods. The NRA management plan directs, however, that the South Jetty arer be developed and managed for day use recreation only. To implement this management direction, reduce conflict, and avoid competition with private campgrounds in the area, this practice was discontinued at the close of the 1984 recreation season. Users of the area were advised that in the future they should camp at either Siltcoos campgrounds or in private facilities in the area. A normal volume of use at South Jetty during these heavy use periods has been from 40 to 60 campsites. This recent change of policy is expected to create an even greater demand on the existing Siltcoos facilities and an increased need for more development in the area.

Forest Service campgrounds, by policy, are developed with a semi-primitive character, providing only the essential necessities for safety and sanitation. The most common complaint expressed by campers at the NRA, is the lack of hot water and showers available in these sites. Private campgrounds away from the NRA offer these conveniences; however, most ORV visitors prefer to camp adjacent to the dunes to avoid trailering their sand vehicles back and forth from the overnight camp spot to the play area. A private camp with good sand access, would help meet this expressed need.

Denial of the permit request would not allow any opportunity to improve the existing functional relationships. This would be inconsistent with the evaluation criteria.

MAINTAIN EXISTING ROS CLASSIFICATION

As nothing would change by this alternative, there would be no affect to the existing Semi-Primitive Motorized classification of the area. Therefore, the no action alternative would be consistent with this evaluation criteria.

ECONOMIC IMPACTS

The primary attraction of the proposed campground location is the adjacent off-road vehicle area and not the camp area itself. Success of the development relies almost totally upon the requested dune access road. As stated earlier, if the permit is denied, the applicant might seek an alternate route across other private land. If this is negotiated, economic benefits to those property owners could be expected.

Administrative benefits of granting the road permit, is the advantage of privately owned facilities versus government furnished. Campground operation by the Federal Government is not cost effective and a private campground, serving the needs of the NRA, is expected to be a saving to the administration. If adequate facilities are offered in the area by the private sector, plans for further expansion of Siltcoos ORV campgrounds may be abolished. Construction cost of an additional facility at Siltcoos is estimated at \$200,000. Annual maintenance costs would be in addition to this figure. If the permit is denied, these future costs may be expected.

ALTERNATIVE II - GRANT PERMIT

The following, are the expected effects of granting the permit.

IMPACTS TO ADJACANT LANDOWNERS

With a development such as planned, it can be assumed that ORV use of the immediate area will increase. As this happens, it can be expected that some additional impact will be felt by the adjacent landowners and residents. This adverse environmental effect is one of those, determined by the FINAL ENVIRONMENTAL IMPACT STATEMENT (EIS) OREGON DUNES NATIONAL RECREATION AREA MANAGEMENT PLAN, as unavoidable.

The impact of the development is not expected to be significant. The primary increase in use is expected to be by the ORV rental portion of the operation; however, this rental activity will be restricted to daylight hours. It should not be assumed that a campground in the area would add significantly to the overall dune traffic, but would only redistribute existing numbers. Also, as the primary play area of the north dunes is located north and west of the proposed development, it can be expected that the majority of use would be directed toward that area, away from the residential community.

Primary concerns identified by adjacent residents has been trespassing, night-time traffic and noise. Increased law enforcement in the area, improved property boundary signing and better public education are methods currently being used to improve the existing situation.

Increased monitoring of noise levels and use patterns will be an essential part of this alternative and violations will be dealt with accordingly. If it is determined that night-time activities generating from the development are contributing significantly to the problem, a curfew on the road may be imposed.

CONSISTENCY WITH COASTAL ZONE MANAGEMENT GOALS

Consistency statements from the State Conservation and Development Commission and Lane County will be provided by the applicant as part of this permit evaluation process. These statements will certify that the planned development is determined to be consistent with both the Coastal Zone Management Act and County plans. If development is found to be inconsistent, no permit will be issued.

CONSISTANT WITH PURPOSE OF OREGON DUNES NRA

PL 92-260, states that the purpose of establishment of the Oregon Dunes National Recreation Area was to provide for public outdoor recreation use and enjoyment of the dunes.

Also, the plan states that a primary purpose of the NRA, is to effectively disperse recreation visitors throughout the dunes, while providing for a broad spectrum of use.

In addition, the plan emphasizes a preference of private development of support facilities on the periphery of the NRA.

It is expected that a facility such as planned, in this location, would effectively disperse visitors and would encourage private development of support facilities on the periphery of the NRA. Implementation of this alternative, is considered consistent with these goals.

IMPROVED FUNCTIONAL RELATIONSHIPS

It is expected that this alternative would better disperse ORV use over the north dunes and relieve a portion of the existing crowding at Siltcoos and South Jetty.

Also, as the primary attraction to ORV enthusiasts is north and west of the access, it is expected that a campground in that location may relieve some of the existing impact to local residents. Traffic from Siltcoos to Competition Hill and to South Jetty is believed to be responsible for much of this annoyance. As the pattern of shifts from Siltcoos to a campground in this location, this impact may be reduced.

Functional improvements for the visitor can include any of those provided by the private operator not offered in the Forest Service campgrounds. A facility in a location such as this, that furnishes hot water and showers as planned by the permit applicant, will provide a service that is in demand and not available elsewhere in the area.

Allowing overflow camping at Siltcoos recreation area, in periods of heavy use, could be changed if suitable camp space is available elsewhere.

Another consideration of such a development is the likelihood of benefit to the other commercial businesses in the community. It can be assumed that some of these campers might also enjoy other things offered in the area during their stay.

These functional improvements may be expected by granting the permit.

MAINTAIN EXISTING SEMI-PRIMITIVE ROS CLASSIFICATION

The affected area accessed by the requested road is classified as Semi-Primitive Motorized by the Recreation Opportunity Spectrum. (For additional information, refer to ROS Users Guide, on file at the Oregon Dunes NRA Headquarters.)

Experience Level and Social Setting are the two elements of recreation quality that could be affected by the permitted road. To maintain the desired Semi-Primitive experience, a low to moderate contact frequency should not be exceeded on an average recreation day.

As stated earlier, it is not expected that the planned campground would significantly increase the number of vehicles or visitors in the area but would nearly redistribute the existing numbers. The increase of use can be expected with the ORV rental operation by drawing travelers or incidental users into the area. A maximum number of 20 such rentals, operating at one time may approach a moderate contact frequency, as the Semi-Primitive criteria suggests, but should not exceed it.

ECONOMIC IMPACTS

The permit applicant estimates an initial capital investment of approximately \$150,000 to develop and equip the facility as planned. Much of the investment is expected to be made locally, stimulating the local economy. In addition, as the facility is designed to draw primarily on the tourist trade, and the developer is locally established, a long term benefit to the area as a whole, can also be expected. An annual permit fee of \$30 is also required.

Some impacts of the development are likely to be felt by other facilities in the area providing a similar service. As there are no other private campgrounds in the area with direct dune access, little impact is expected to that industry but the other ORV rental concessions in the area may be affected somewhat.

Administrative economic benefits can be expected by private development and management of support facilities, as opposed to Government owned. A planned expansion of the Siltcoos facility is estimated at a construction cost of \$200,000. This, plus an estimated \$12,000 annually in maintenance and administrative costs, could be eliminated by the private development.

Increased administrative impacts can be expected in areas of permit administration, law enforcement, litter policing and monitoring for increased impacts to the adjacent landowners. Additional funding is not available to offset these impacts, necessitating re-prioritizing of existing workloads as necessary.

CUMULATIVE EFFECTS

Planning guidelines established by, THE FINAL ENVIRONMENTAL STATEMENT, OREGON DUNES NRA MANAGEMENT PLAN, are established with an estimated 2.5 million recreation visitor days (RVD's) per year, approximately twice the present volume of use. For planning purposes, this estimate is considered the acceptable upper capacity limit of the area.

Forest Service facility development in the area between Siltcoos to South Jetty is nearly complete with no immediate plans for further expansion. Existing trends, however, indicate that use in the area is increasing and that a market for additional private facilities may develop in the future. In the area between Siltcoos and South Jetty, the opportunity exists for approximately eight to ten additional private landowners to access the dunes with some form of commercial recreation development. The market is expected to determine the demand for such needs.

If this maximum potential were to be developed, the volume of use would far exceed the acceptable level established by the management plan; however, the increase from a 10 unit campground such as planned would be insignificant.

MANAGEMENT DIRECTION AFFECTING A DECISION

PUBLIC LAW 92-260 As stated in the Act, the purpose of the establishment of the Oregon Dunes National Recreation Area is to; "..... provide for the public outdoor recreation use and enjoyment of certain ocean shorelines and dunes, forested areas, fresh water lakes, and recreational facilities in the State of Oregon by present and future generations."

FINAL ENVIRONMENTAL STATEMENT OREGON DUNES NRA, MANAGEMENT PLAN: The following excerpts from planning goals, direction and assumptions, from the Oregon Dunes NRA Management Plan, are determined applicable and appropriate for the decision analysis.

"This action will effectively disperse recreation visitors throughout the dunes, while providing for a broad spectrum of use." (Planning goal, ref. to overall management plan. pg.26, Proposed Action,)

"The peripheral development concept, keeping the proposed developments along the eastern edge immediately adjacent to U.S. 101,..... This can be done with Federal money, if the demand is not being met by the private sector." (pg.28.)

"Camping will be available within the NRA by retention of most existing Forest Service camp grounds. Campgrounds will not be elaborate, but will cater primarily to those visitors who desire a camping experience associated with the outdoor environment and ready access to the NRA. Private enterprise and other agencies outside the NRA may cater to those visitors requiring a more social or highly developed camping experience." (pg. 30, Campgrounds)

"The pattern of use by ORV's in the dunes and along the beaches has been long established. This vehicular use is considered just as legitimate a recreational activity as camping, hiking or " (pg. 33, Off-road Vehicles)

"Local communities and lands adjacent to the NRA will also have significant impacts as these lands are drawn upon to provide the support facilities necessary for recreation." (pg. 53, para. 1, ENVIRONMENTAL IMPACTS, Society)

"The NRA is fortunate in that both developed and dispersed recreation can be provided for and can utilize the area. However, scarcity of ideally suitable development areas within the NRA, its small size (long and narrow) and the uniqueness of the area dictate that support facilities are best located outside the NRA.

A broad spectrum of recreation uses and facilities will be provided. Local economies will receive additional income generated by the increase in visitors and the demand for support facilities." (pg. 34, para. 1,2, ENVIRONMENTAL IMPACTS, Recreation Use)

"Development of support facilities outside the NRA will increase tax revenues to compensate for loss of development potential within the NRA." (pg. 58, FAVORABLE ENVIRONMENTAL EFFECTS, Land Development)

"Increased recreation and tourism will generate increased law enforcement problems, traffic congestion and noise pollution." (pg. 59, ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED, Society.)

For additional information refer to: The ODNRA MANAGEMENT PLAN.

PUBLIC INVOLVEMENT

In addition to the extensive public involvement conducted for the Final Environmental Statement, Oregon Dunes NRA Management Plan, a current round was conducted for this planning process. Numerous meetings were held with concerned community representatives of the locally organized citizens group, PROTECT DUNE QUALITY (PDQ). The purpose of the meetings were to inform the community of the planned project and to invite comment and public concerns.

PERMIT PROVISIONS AND DESIGN CRITERIA

The permitted road will be developed to the following criteria:

- 1) The road location, subject to Forest Service approval, will be the responsibility of the permittee.
- 2) Where possible, the road will be located through dense brush, avoiding natural openings, for the purpose of discouraging unwanted vehicle use into the surrounding area.
- 3) Appropriate design and maintenance specifications will be included as provisions of the permit.
- 4) The road will be located in the shortest and most direct route to the open sand, within the limits of the design standards.