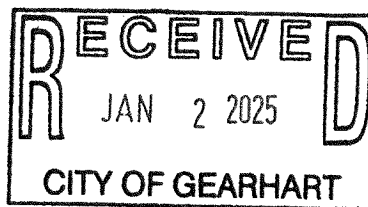


January 2, 2025

Gearhart City Council and Mayor Smith  
City Administrator Chad Sweet  
698 Pacific Way  
Gearhart, Oregon 97138



Re: Turner Weeping Willow

Dear Mayor Smith, City Council and Chad Sweet:

Last month's city council, there were comments by Peter Watts about the railroad right-of-way. I would like to provide additional documents.

I had provided a copy of my boundary survey done by Tom Wagner in 1987. We had a boundary line dispute with our neighbors in the 1980's. My deed call was 15' further north. The common-use driveway was shared and it led to numerous conflicts. The properties further south to Airport Road had similar discrepancies in the deed calls. It was futile to convince others of the necessity to correct the deeds.

After many hours of research, Mr. Wagner decided to set property corners based on the middle of the old driveway, which was vacated by mutual agreement between Sopkos and the Mancills. By recording the survey at the County Surveyor's Office, it became a legal document that cannot be challenged in a court of law.

Recently I came across a CKI survey done for Rose Turner in 2009. The Turners did not share this information with the Tax Assessors office when they combined two tax lots, for the purpose of voiding their Easement Agreement with the Department of Environmental Quality.

This boundary survey shows that Hullender's building eave overhang is 0.2' south of the Turner north property line. The discrepancy between the occupation line and the deed call is 13.4'. The CKI survey is a legal document. The disputed property line needs to be resolved between the Turners and Hullender.

An unrecorded survey done by Ernest Davis, September 30, 1987, that I found in the archives, got recorded when CKI surveyed the Turner property. It assigned 16' extra feet to the Sopko/Turner north property line.

For argument's sake, the survey raises a cloud on the Turner's north property line. Combining two tax lots without resolving this issue, legally complicates their property description. Clatsop County webmaps clearly shows the Turner north property line touching Hullender's building. Somebody was asleep at the courthouse!

I found my old papers from Coast Title Company. (1980) It pertains to the railroad right-of-way and how title insurance companies dealt with it. Subject to the usual printed exceptions:

5. Subject to the right of ways of both the State Highway Dept. and the S. P. & S. Railway Company.

Exhibit A legal description is for my property. It is to the center of the State Highway and the center line of the S.P. & S. Railway. A copy of the tax map from 1980 shows clearly that the railroad as drawn independent of the tax lots. We paid no property taxes on this land.

This background information should be used as part of your investigation. Thank you for reviewing this new information.

Sincerely,



Deanna Mancill

2945 Hwy. 101 North

Gearhart, Oregon 97138

e-mail: [dmancill@msn.com](mailto:dmancill@msn.com)

N89°37'03"E  
(N89°37'41"E)  
22.49'(22.49') HELD

OSTER ROAD  
N 89°37'03" E 231.72'  
CO. RD. NO. 178

# BOUNDARY SURVEY

IN THE SW 1/4 OF SECTION 10, T6N, R10W, W.M.  
CITY OF SEASIDE, CLATSOP COUNTY, OREGON  
DATE: JULY 7, 2009 SCALE 1" = 50'

OREGON COAST HIGHWAY US 101

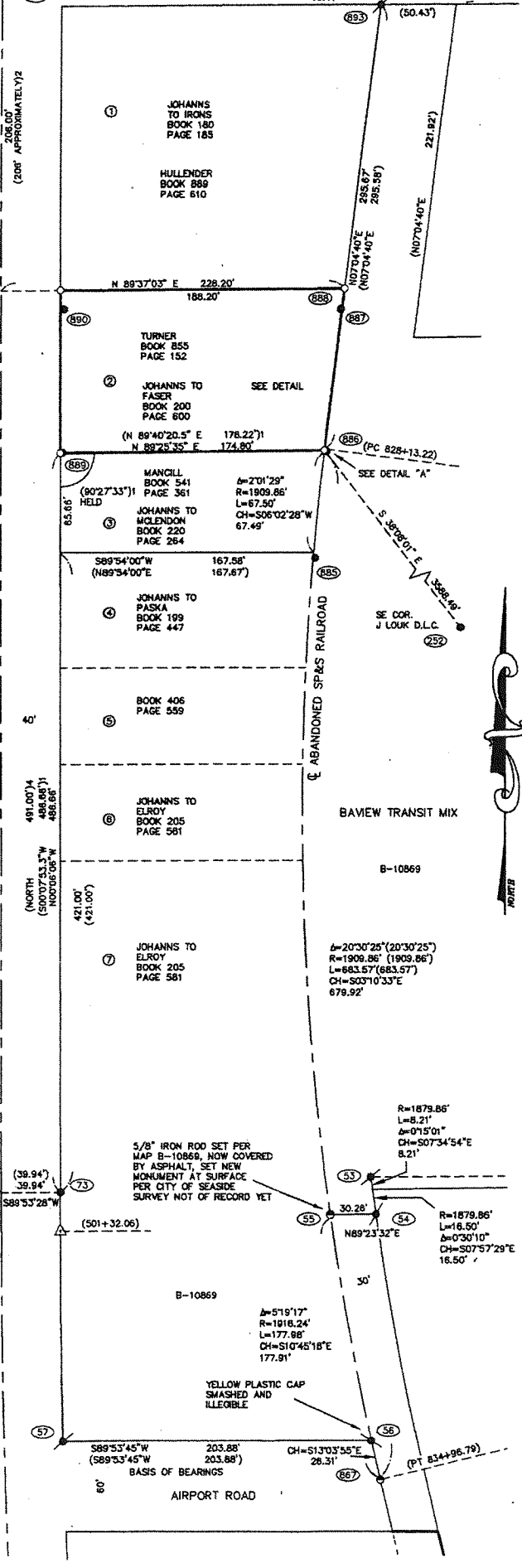
(N 00°05'00" W)  
N 00°05'32" W 789.27'  
40'  
40'  
401.00' N  
(S00°27'53.3" W  
N00°05'08" W 488.80'  
421.00'  
(+21.00')

(NORTH  
(S00°27'53.3" W  
N00°05'08" W 488.80'  
421.00'  
(+21.00')

5/8" IRON ROD SET PER  
MAP B-10869, NOW COVERED  
BY ASPHALT, SET NEW  
MONUMENT AT SURFACE  
PER CITY OF SEASIDE  
SURVEY NOT OF RECORD YET

5/8" IRON ROD SET PER  
MAP B-10869, NOW COVERED  
BY ASPHALT, SET NEW  
MONUMENT AT SURFACE  
PER CITY OF SEASIDE  
SURVEY NOT OF RECORD YET

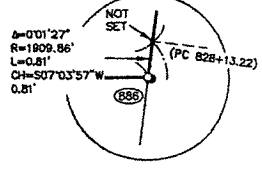
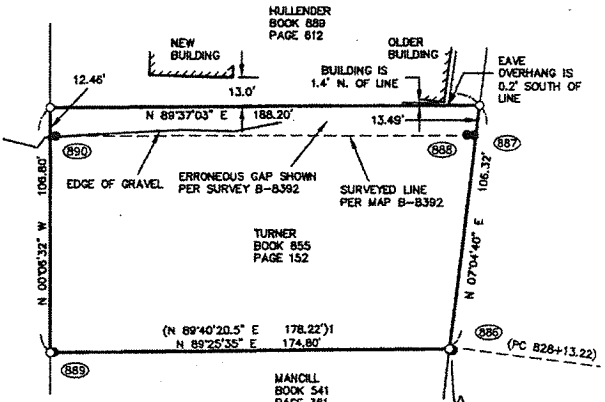
5/8" IRON ROD SET PER  
MAP B-10869, NOW COVERED  
BY ASPHALT, SET NEW  
MONUMENT AT SURFACE  
PER CITY OF SEASIDE  
SURVEY NOT OF RECORD YET



## LEGEND

- FOUND MONUMENT AS NOTED HEREON
- FOUND 5/8" IRON ROD WITH YELLOW PLASTIC CAP MARKED "HLB & ASSOC INC." PER MAP B-10869
- SET 5/8" BY 30" IRON ROD WITH YELLOW PLASTIC CAP MARKED "CKI INC PLS 2829", UNLESS OTHERWISE NOTED
- (1) RECORD VALUE PER MAP B-10869
- (01) RECORD VALUE PER MAP B-4384
- (02) RECORD VALUE PER BOOK 180, PAGE 185
- (03) RECORD VALUE PER MAP B-8704
- (04) RECORD VALUE PER BOOK 200, PAGE 600
- (X) MONUMENT NUMBER
- MONUMENT SEARCHED FOR NOT FOUND
- SET BERNSTEIN ASPHALT NAIL WITH 1 1/2" STAINLESS STEEL WASHER STAMPED "CKI INC PLS 2829" SET IN ASPHALT ACCESS ROAD, PER MAP FOR CITY OF SEASIDE, NOT OF RECORD YET
- △ CALCULATED POSITION ONLY

OREGON COAST HIGHWAY US 101



**CKI**  
LAND SURVEYING - PLANNING  
CIVIL ENGINEERING

DRAWING NAME: 9-039 DATE OF PLOT: 10-6-09

SURVEY FOR: ROSE TURNER

SURVEY BY: CKI, INC.  
P.O. BOX 309  
SEASIDE, OR 97138  
503 738 4320 PHONE  
503 738 7854 FAX

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

OREGON  
JUNE 30, 1997  
SCOTT S. COOPER  
2829

CLATSOP COUNTY  
SURVEYOR  
RECEIVED  
AUG. 28, 2009  
FILED 10-09-09 U.S.  
ASTORIA, OREGON

RENEWS 12/31/09

# BOUNDARY SURVEY

IN THE SW 1/4 OF SECTION 10, T6N, R10W, W.M.

CITY OF SEASIDE, CLATSOP COUNTY, OREGON

DATE: AUGUST 11, 2009

## NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO MONUMENT THE SUBJECT PROPERTY DESCRIBED IN BOOK 855, PAGE 152, DEED RECORDS, CLATSOP COUNTY, OREGON.

BEARINGS ARE BASED ON A LINE BETWEEN MONUMENTS 56 AND 57 PER MAP B-10866 CLATSOP COUNTY SURVEY RECORDS.

THERE HAS BEEN A CONSIDERABLE AMOUNT OF SURVEY WORK DONE ON THE SUBJECT PROPERTY AND SURROUNDING PROPERTIES DATING BACK TO THE ORIGINAL PATENT TO J. LOUCK, D.L.C. THERE HAVE BEEN SEVERAL CONFLICTS BETWEEN OWNERS AND DIFFERENT DETERMINATIONS MADE AS TO WHERE OLD RECORD DEED LINES EXIST.

TOM WAGNER SPENT SEVERAL YEARS BEGINNING IN 1983 UNTIL 1987 WORKING ON COMPILING DATA AND LOOKING AT SURVEY, OCCUPATION AND DEED EVIDENCE OF THE CHAIN OF TITLE AS THE TRACTS WERE CONVEYED AND SPLIT UP OVER THE YEARS. HE WROTE TWO LENGTHY OBSERVATIONS OF HIS FINDINGS IN HIS SURVEY B-8380 IN 1988 WHICH WAS LATER AMENDED BY B-8704 IN 1987. THE AMENDED SURVEY WAS DONE SO TO ACCEPT THE PHYSICAL EVIDENCE OF A DRIVEWAY BETWEEN THE MANCILL AND SOPKO (NOW TURNER) PROPERTY AS THE WRITTEN DEEDS HAD CONFLICTING INFORMATION. TOM WORKED ON THESE SURVEYS FOR PHILIP AND DEANNA MANCILL IN 1986 MICHAEL SOPKO HIRED ERNEST DAVIS TO SURVEY THE ADJOINING PROPERTY TO THE NORTH OF THE MANCILL'S (SEE MAP B-8382). DAVIS CONCLUDED THAT THE SOPKO DEED HAD SENIOR RIGHTS TO THE MANCILL DEED AND THAT THE COMMON LINE SHOULD BE PLACED AT 4.74 FEET SOUTH OF THE SOPKO HOUSE. WAGNER'S SURVEY HAD THIS LINE AT 9.2 FEET SOUTH OF THE HOUSE PER B-8704. DAVIS' SURVEY ALSO SHOWS A GAP BETWEEN THE TURNER PROPERTY, TRACT 2, AND THE HULLENDER PROPERTY TRACT 1, (SEE MAP B-8392).

ON AUGUST 14, 1987 A CONFERENCE WAS HELD AT THE LAW FIRM CAMPBELL, MOBERG & CANESSA, WITH SEVERAL OF THE ADJOINING LAND OWNERS, ERNEST DAVIS (SURVEYOR), ROBERT MOBERG AND DAN VAN THIEL (ATTORNEYS) PRESENT. MR. VAN THIEL REPRESENTED THE SOPKOS AND MOBERG REPRESENTED THE MANCILLS. ACCORDING TO MRS. MANCILL, LATER MR. VAN THIEL (AUGUST 21, 1987) WROTE A LETTER TO THE SURROUNDING NEIGHBORS WITH THE AGREEMENT THAT THEY WOULD HIRE ERNEST DAVIS TO SURVEY AND PREPARE NEW LEGAL DESCRIPTIONS "... TO CORRECT WHATEVER DEFICIENCIES WERE DETERMINED AS A RESULT OF HIS WORK." AFTER THE SURVEY WAS DONE MR. VAN THIEL WROTE A LETTER ON OCTOBER 15, 1987 TO ROBERT MOBERG DETAILING DAVIS' FINDINGS AND OFFERING A SOLUTION. THIS LETTER CONCLUDED THAT THE SURVEY CAME OUT "... QUITE WELL AND, INTERESTING ENOUGH, MANY OF THESE PEOPLE END UP WITH MORE PROPERTY THAN WHAT THEY HAD ENJOYED FROM AN OCCUPATION STANDPOINT." ATTACHED TO THE LETTER WAS A SURVEY BY DAVIS DATED SEPT. 30, 1987, A LEGAL DESCRIPTION (WRITTEN BY DAVIS) AND BARGAIN & SALE DEED PREPARED TO CORRECT THE LINE BETWEEN SOPKO AND MANCILL ONLY. NOTE THAT THIS DAVIS SURVEY WAS NOT RECORDED AT THAT TIME. IT HAS SINCE BEEN RECORDED AS MAP B-4384. VAN THIEL FELT THAT IT WAS ONLY NECESSARY TO ADJUST THAT LINE, AND THAT THE SURVEY WOULD FOLLOW THE OLD FENCE LINE EXISTING DOWN THE CENTER OF AN OLD DRIVEWAY BETWEEN THE TWO PROPERTIES. ACCORDING TO MRS. MANCILL SHE AGREED TO SIGN AND RECORD THE BARGAIN AND SALE DEED. HOWEVER, HER MORTGAGE COMPANY REFUSED TO GIVE HER A PARTIAL RELEASE OF MORTGAGE STATING AMONG OTHER THINGS THAT THEY NEEDED AN ADJUSTMENT DEED TO HER SOUTH LINE AS WELL. LATER SOPKO CONVEYED HIS PROPERTY TO TURNER, HOWEVER, THEY DID NOT RECOGNIZE THE AGREED UPON LINE AND THE LEGAL DESCRIPTION MATCHED THE PREVIOUS ONES. HOWEVER, AS BOTH PARTIES DID AGREE, ALTHOUGH THE DEED WAS NOT RECORDED I BELIEVE THIS REPRESENTED A BINDING CONTRACT. THEREFORE, I HAVE HELD THIS LINE AS AGREED UPON BY THE TWO PARTIES. SOPKO, WHO LATER SOLD TO TURNER, AND MANCILL, RETRACING THE DAVIS SURVEY I HELD THIS COMMON LINE BY MEASURING FROM MONUMENT 73, A SHIP BOLT SET BY TIM DE JONG IN 1941 AS BEING ON THE NORTH LINE OF THE SARAH BYRD TRACT, NORTH ALONG THE HIGHWAY A DISTANCE OF 486.68 FEET (THE RECORD DISTANCE THE DAVIS SURVEY B-4384). AN IRON ROD WAS FOUND TO FIT THIS LOCATION FAIRLY CLOSE, BUT WAS NOT OF RECORD BY DAVIS ON EITHER HIS SURVEYS. B-4384 OR B-8392. SEE MONUMENT 889. I HELD MR. DAVIS' RECORD ANGLE FROM THE HIGHWAY AND PROJECTED A LINE EASTERLY TO THE CENTER OF THE RAILROAD GRADE TO RE-CREATE THIS AGREED UPON LINE BETWEEN MANCILL AND SOPKO. DAVIS CALLS TO HIS MONUMENT AT THIS LOCATION, BUT NOTHING WAS FOUND. I STRONGLY ENCOURAGE THE MANCILLS AND TURNERS TO RECORD THE ORIGINAL DOCUMENT, UPDATED TO CORRECT THE CURRENT OWNERS NAMES, AS IT REPRESENTS THE AGREED UPON LINE. AFTER READING A COPY OF THE UNRECORDED DEED I NOTED A SCRIBENER'S ERROR IN THE CLOSING CALL WHICH REFERS TO A DISTANCE OF "26.7 FEET" THE SHOULD BE 16.7 FEET AS THIS COMMON LINE STARTS AT 408.68 FEET NORTHERLY ALONG THE HIGHWAY OF THE SHIP BOLT SUPPOSEDLY ON THE SARAH BYRD NORTH LINE (MONUMENT 73) AND THE DEED BEGINS AT A POINT 503.35, BY SUBTRACTION THIS DISTANCE WOULD BE 16.69 FEET NOT 26.7 FEET. THE DEED REFERS TO SEVERAL ERNEST DAVIS MONUMENTS HOWEVER, NONE WERE FOUND EXCEPT FOR A MONUMENT 880 THAT FITS ON THE LINE AS DESCRIBED, BUT WAS NOT CALLED FOR IN THE DEED OR SHOWN ON EITHER OF DAVIS' SURVEYS.

NOTE THAT THE HLB MONUMENTS PER MAP B-10869, NEAR THE SOUTHEAST CORNER OF THE TURNER PROPERTY, AND SOUTHEAST CORNER OF THE MANCILL PROPERTY WERE BOTH LOOKED FOR BUT NOT FOUND.

MR. WAGNER THROUGH THE COURSE OF HIS SURVEYS UNCOVERS THE HISTORY OF DEED CONVEYANCES. A SUMMARY OF HIS HISTORICAL RECORD PER THE NARRATIVES ON MAPS B-8380 & B-8704 IS AS FOLLOWS: ORIGINALLY MR. J. LOUCK WAS PATENTED THE DONATION LAND CLAIM. HE LATER SOLD THE D.L.C. TO PHILIP GEARHART, WHO THEN GAVE TITLE TO A PORTION OF THAT PROPERTY TO HIS DAUGHTER SARAH BYRD IN BOOK F, PAGE 772 IN 1879. IN 1884 JOHN GEARHART SOLD A PORTION OF THE REMAINING D.L.C. TO CLARA STANLEY NORTH OF THE SARAH BYRD TRACT PER BOOK 9, PAGE 174. THIS DEED DOES NOT MENTION OF THE ADJOINING NORTH BOUNDARY OF THE SARAH BYRD TRACT. THE NORTH LINE OF THE CLARA STANLEY TRACT LATER BECAME THE SOUTH BOUNDARY OF WOODLAND PARK ADDITION IN 1911. A 60 FOOT WIDE RAILROAD RIGHT-OF-WAY WAS CREATED THROUGH THE STANLEY TRACT PER BOOK 32, PAGE 140. H.M. BUTTON BOUGHT THE REMAINDER OF THE CLARA STANLEY TRACT AND LATER SOLD IT TO GEORGE HAWES IN BOOK 98, PAGE 38. COUNTY ROAD 178 (OSTER ROAD) WAS DEDICATED 16.5 FEET SOUTH OF THE WOODLAND PARK SOUTH LINE AND 20 FEET NORTH AND WAS SURVEYED BY GELD PARKER IN 1918 (AND LATER BY BOB HOVDEN PER MAP B-8921). IN 1921 GEORGE HAWES HIRED PARKER TO SURVEY HIS PROPERTY PER MAP B-1119. IN 1925 HAWES SOLD THE PORTION OF THAT TRACT EAST OF THE RAILROAD GRADE TO OSTER, PER BOOK 115, PAGE 640. IN 1928 GEORGE HAWES DIED. IN 1927 THE COURTS AWARDED HIS WIFE AND HIS DAUGHTER MILDRED HIS ESTATE PER BOOK 122, PAGE 284. J. JOHANNIS LATER MARRIED GEORGE HAWES DAUGHTER MILDRED PRIOR TO 1941. JOHANNIS DIVIDED THE PROPERTY BETWEEN OSTER RD. AND THE NORTH LINE OF THE SARAH BYRD PROPERTY INTO 7 TRACTS OF LAND. THESE TRACTS ARE SHOWN NUMBERED 1 THROUGH 7 FOR REFERENCE PURPOSES. NOTE THAT TRACTS 4, 5, 6 AND 7 ARE NOW PART OF THE BAYMEW TRANSIT PROPERTY. SOME OF THE TRACTS ARE DESCRIBED FROM THE NORTH OF LINE OF THE SARAH BYRD TRACT AND SOME FROM COUNTY RD. 178, OSTER ROAD.

THERE IS A CONSIDERABLE AMOUNT OF CONTROVERSY ON THE LOCATION OF THE NORTH LINE OF THE SARAH BYRD TRACT. WAGNER SHOWS 4 DIFFERENT RENDITIONS OF THE LOCATION OF THIS LINE ON MAP B-8704. THE LOCATIONS DIFFER DEPENDING ON WHICH SURVEY OR OLD DEED CALL REFERENCE WAS USED. THE REFERENCES MENTION CALLS TO THE SOUTHWEST CORNER OF THE CLARA STANLEY TRACT, THE NORTHWEST CORNER OF SECTION 10, OR NORTH OF THE SOUTH LINE OF THE LOUCK D.L.C. THE CONSENSUS SEEMS TO BE HOLDING MONUMENT 73 AS BEING ON THE NORTH LINE OF THE SARAH BYRD TRACT FOR THE PURPOSES OF LAYING OUT THE DEEDS. MONUMENT 73 WAS REPORTEDLY SET BY TIM DE JONG IN 1941 PER MAP C-389. SEE ALSO MAPS B-1119, B-10869, B-8392, B-9636, B-9801 & MAP 58-31-12 FOR FURTHER DISCUSSION OF THIS SUBJECT.

TRACT 1, NOW OWNED BY HULLENDER, WAS ORIGINALLY CONVEYED BY JOHANNIS TO IRONS IN BOOK 180, PAGE 185 AND IS THE FIRST OF THE 7 TRACTS CONVEYED. NOTE THAT THE TRACTS WERE NOT CONVEYED IN ORDER 1 TO 7. THIS DEED STARTS FROM THE INTERSECTION OF THE OLD RAILROAD RIGHT-OF-WAY AND THE CENTER OF COUNTY ROAD 178. THE DEED THEN PROCEEDS WEST TO THE CENTER OF HIGHWAY 101 AND THEN SOUTH ALONG THE HIGHWAY CENTERLINE "APPROXIMATELY 206 FEET." ALTHOUGH THE DEED CALLS "APPROXIMATELY" IT DOES NOT HAVE ANY OTHER QUALIFYING STATEMENTS OR REFERENCES TO OTHER LINES AT THIS LOCATION. TRACT 2, NOW OWNED BY TURNER, WAS ORIGINALLY CONVEYED BY JOHANNIS TO FRASER PER BOOK 200, PAGE 600. THIS DEED MENTIONS BEGINNING AT A POINT ON THE HIGHWAY 491 FEET NORTH OF THE SARAH BYRD TRACT. THIS TRACT IS DESCRIBED AS BEING 80 FEET WIDE. HOWEVER, IT CALLS ITS NORTH LINE BEING THE SOUTH LINE OF THE IRONS TRACT, BOOK 180, PAGE 185. THEREFORE, I HELD THE NORTH LINE OF THE SUBJECT PROPERTY AS BEING THE SOUTH LINE OF THE IRONS TRACT, NOW HULLENDER, FROM THE CENTER OF OSTER ROAD AND BEING 206 FEET WIDE AND PARALLEL TO THE COUNTY ROAD AS LOCATED BY MONUMENTS 892 AND 894 PER MAP B-8921 AND CALLED FOR IN ALL OF THE PREVIOUS RECORD DEEDS. THERE IS NO CAP AS SHOWN ON MAP B-8392 BETWEEN BOOK 200, PAGE 600 AND BOOK 180, PAGE 185 AS THE NEWER DEED REFERS TO THE SAME LINE AS THE ORIGINAL DEED FROM JOHANNIS. IT APPEARS THAT ERNEST DAVIS MAY HAVE DETERMINED THAT ON HIS SURVEY B-4384, DATED SEPTEMBER 30, 1987, HOWEVER, HE DOES NOT DESCRIBE THIS CLEARLY NOR DOES HE SET MONUMENTS ON THIS LINE. NOTE THAT THERE IS AN IRON ROD WITH A WAGNER CAP ON THE NORTH LINE OF THE TURNER (SOPKO) PROPERTY AS SURVEYED BY DAVIS PER MAP B-8392 (SEE MONUMENT 890). I FIND NO EVIDENCE OF HOW THIS MONUMENT CAME TO BE IN THIS LOCATION.

THE LOCATION OF THE CENTER OF HIGHWAY 101 WAS DETERMINED BY HOLDING A DISTANCE OF 22.49 FEET PROJECTED WESTERLY THROUGH MONUMENTS 892 & 894 AND A FALLING OF 39.94 FEET TO MONUMENT 73 PER MAP B-10869. THIS LINE WAS THEN OFFSET 40 FEET TO THE EAST TO CREATE THE WEST LINE OF THE SUBJECT PROPERTY.

THE EAST LINE OF THE SUBJECT PROPERTY IS THE CENTER OF THE ABANDONED SP&S RAILROAD AND WAS DETERMINED BY HOLDING MONUMENTS 55, 58, 892 & 893 AND RECORD DATA PER MAP B-10869.

RECENT CONSTRUCTION ON THE HULLENDER TRACT APPEARS TO HAVE UTILIZED MONUMENTS 890 AND 897 FOR EVIDENCE OF THE PROPERTY LINE BETWEEN THAT TRACT AND THE TURNER PROPERTY. THERE MAY BE UNWRITTEN RIGHTS THAT HAVE RIPPENED OVER THE COURSE OF YEARS BETWEEN TURNER & HULLENDER TRACTS DUE TO OCCUPATION. BOTH PARTIES ARE ADVISED TO SEEK LEGAL COUNSEL REGARDING THIS MATTER.

## MONUMENT NOTES

- (73) FOUND 1" SHIPBOLT, PER MAP C-369, HELD AS STATION 501+07.4 40' LEFT, SHOWN ON MAPS B-9636, B-10869 & B-10869.
- (252) FOUND 3-1/4" COUNTY SURVEYOR'S ALUMINUM CAP, SE CORNER OF J. LOUCK D.L.C. SEE BT-935.
- (885) FOUND 5/8" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "WAGNER PLS 1373", PER MAP B-8704, S19°55'05"E 3.74 FEET OF CALCULATED POSITION.
- (886) FOUND 5/8" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "WAGNER PLS 1373", PER MAP B-8380, S87°36'43"E 1.64 FEET OF SET MONUMENT.
- (887) FOUND 5/8" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "LS 1095" IN CONCRETE, PER MAP B-8392, S09°57'04"W 13.62 FEET OF SET MONUMENT, ORIGIN UNKNOWN.
- (888) FOUND 1/2" IRON PIPE NEXT TO MONUMENT 887, IN CONCRETE S101°4'19"W 13.54 FEET OF SET MONUMENT, ORIGIN UNKNOWN.
- (889) FOUND 5/8" IRON ROD WITH ILLIGIBLE PLASTIC CAP, N82°29'11"E 1.22 FEET OF SET MONUMENT, ORIGIN UNKNOWN.
- (890) FOUND 5/8" IRON ROD WITH YELLOW PLASTIC CAP REPORTEDLY STAMPED "WAGNER PLS 1373", WITH PVC PIPE OVER THE TOP, 5.5' BELOW GRADE, UNABLE TO VERIFY CAP, S10°46'56"E 12.62 FEET OF SET MONUMENT, ORIGIN UNKNOWN.
- (892) FOUND 5/8" IRON ROD WITH 2" ALUMINUM COUNTY SURVEYORS CAP, TOP 0.4' BELOW ASPHALT, HELD FOR CENTERLINE OF OSTER ROAD AND ABANDONED RAILROAD, SEE MAP B-8921.
- (894) FOUND 5/8" IRON ROD WITH NO CAP 0.3' BELOW ASPHALT, HELD FOR CENTERLINE OF OSTER ROAD, SEE MAP B-8921.



DRAWING NAME: 9-039

DATE OF PLOT: 10-8-09

SURVEY FOR: ROSE TURNER

SURVEY BY: CKI, INC.  
P.O. BOX 309  
SEASIDE, OR 97138  
503 738 4320 PHONE  
503 738 7854 FAX



CLATSOP COUNTY  
SURVEYOR  
RECEIVED  
AUG. 28, 2009  
FILED 10-09-09  
ASTORIA, OREGON

**SURVEY FOR 50PK W, MANCILL, JASPER, HK112, ET AL. IN THE S.W. 1/4, SEC. 10, T.6N, R.10W W.M. CLATSOP CO, OREGON**

**PURPOSE:** RESURVEY PARCELS 1-6 AS SHOWN ON THIS PLAT HOLDING LINES OF OCCUPATION AND SELECT DEED CALLS TO CORRECT DEED AMBIGUITIES AND OVERLAPS AS DIRECTED BY THE LANDOWNERS INVOLVED.

**METHOD:** HELD NORTH BETWEEN TWO FOUND 5/8" W. REBAR AS PER (CS 4232 FOR THE BASIS OF BEARINGS. I HELD A FOUND 1" SHIPBOLT SET BY DEJONG AS THE EAST R.O.W LINE HIGHWAY 101 AND THE NORTH LINE OF THE SARAL BYRD TRACT (CS 369, CS 832) AND HIGHWAY STA 501+07.5; I HELD AN INVERSE OF N 00-01-53.56 BETWEEN THE 1" SHIPBOLT AND A POINT 9.75' EAST OF A FOUND REBAR AT THE S.W. COR. WOODLAND PARK ADDN (CS 8392), TO CONTROL THE EASTINGS. I HELD A CALCULATED POINT ON THE CENTERLINE C.R. 178 251.14 FT FROM THE CENTERLINE HWY 101 TO THE CENTERLINE BURLINGTON NORTHERN R.R. (CS 1119) TO CONTROL THE RR EASTINGS. I LAID OUT THE RR CENTERLINE USING RR TANGENT AND CURVE DATA. I HELD ON LINES OF OCCUPATION AND IN THEIR ABSENCE ON DEED CALLS TO COME AS CLOSE AS POSSIBLE TO THE ALLOTTED DEED NORTHINGS. THIS WAS DONE BY WRITTEN AGREEMENT OF THE FREE TITLE HOLDERS. I HELD TO THE DEED CALLS ON THE NORTH AND ON THE SOUTH OF THE ACRES OF THE SE AS NOT TO INTRUDE ON NON-PARTICIPATING ADJOINERS. I CALCULATED THE DISTANCE FROM THE SE COR. LOUCK D.L.C. TO THE 1" SHIPBOLT USING CS 349 AND CS 832.

- ① Fd PK W/WASHER L51373 S 81-40-20.5W 8.17' HELD FOR NORTHINGS
- ② Fd 5/8" REBAR L51373 N 81-33-53.6W 7.70"
- ③ Fd 5/8" REBAR & CAP L51373 S 81-40-20.5W 3.01' HELD FOR NORTHINGS
- ④ Fd 5/8" REBAR & CAP L51373 N 71-53-50.1W 4.25'
- ⑤ END POST ON OLD CHAIN LINK FENCE
- ⑥ END POST ON OLD CHAIN LINK FENCE
- ⑦ Fd 5/8" REBAR CS 6232
- ⑧ Fd 5/8" REBAR W/CAP RE 3570 CS 4232
- ⑨ Fd 5/8" REBAR FLUSH W/PAVEMENT
- ⑩ Fd P-K NAIL @ CR 178 1.76' NORTH OF ③
- ⑪ Fd P-K SOUTH LINE WOODLAND PARK
- ⑫ Fd P-K @ CR 178 CS 8388
- ⑬ Fd 1" SHIPBOLT NORTH LINE SARAL BYRD TRACT CS 369

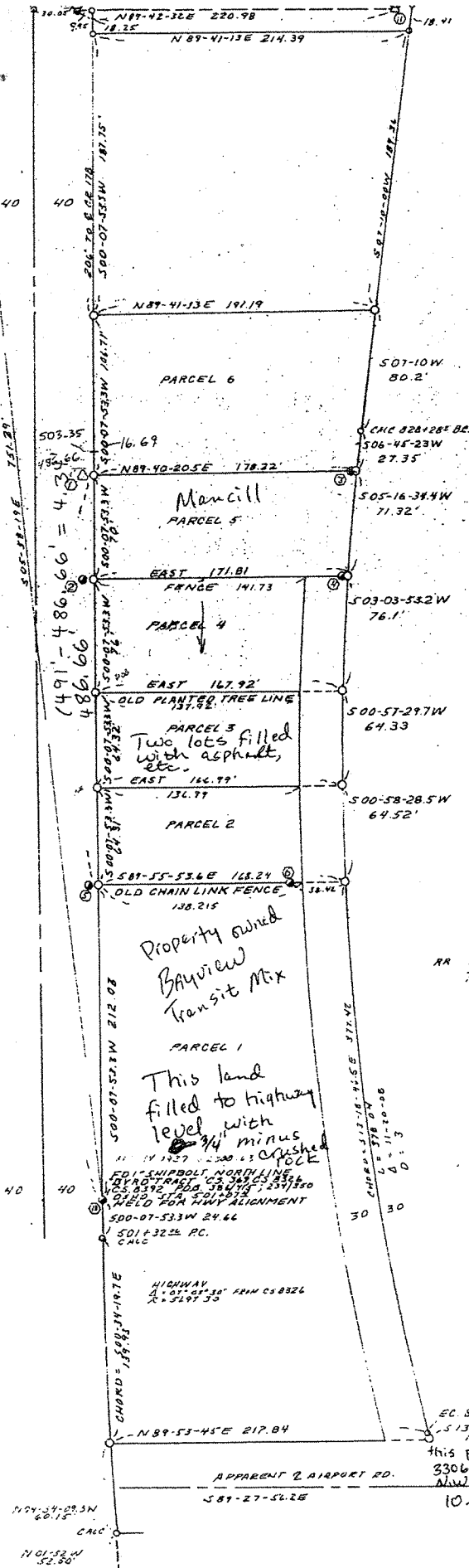
BY COLUMBIA SURVEYING & MAPPING 814 GRAND AVE ASTORIA OR 97103 503-325-0860  
SEPT 30 1987 NO 01-44 C-D SCALE 1"=50'

RR D=2'  
A=20.47'  
R=1709.86'

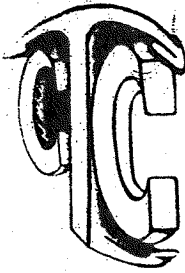
*Ernest Louis Davis*

NOTE: THIS SURVEY WAS RECEIVED IN OCTOBER OF 2009 FROM CKI INC. THE HAND WRITTEN TEXT WAS REPORTED AS BEING ADDED BY A PRIVATE PARTY. THIS SURVEY IS BEING RECORDED AS-IS.

CLATSOP COUNTY  
SURVEYOR  
RECEIVED  
OCT. 05, 2009  
FILED 02-05-09 VS.  
ASTORIA, OREGON



SEARCHED FOR DIDN'T FIND 1" SHIPBOLT SET BY DEJONG. CS 369, I CALCULATE THIS POSITION FROM CS 349 AND CS 832. THIS POSITION IS CALLED IN CS 349 AS N. 2057.08 AND W. 2380.79 FROM SE COR LOUCK D.L.C. ROB. 2557'135"; 360/312;



# COAST TITLE COMPANY

## Title Insurance and Escrow

729 S. Holladay Drive • Seaside, OR 97138 • (503) 738-8411

August 15, 1980

Order No. 1764  
Larsen/Mancill  
Escrow No. 80-154

Oregon Coast Realty  
12 N. Holladay Drive  
Seaside, Oregon 97138

Gentlemen:

We are prepared to issue a Owner's Title Insurance Policy in the amount of \$35,000.00 and a Mortgagee's Title Insurance Policy in the amount of \$34,000.00, covering:

### EXHIBIT "A"

as of August 7, 1980, at 8:00 A.M., vested in:

VERN S. LARSEN AND MARGARET LARSEN  
an estate in fee simple as tenants by the entirety,

Subject to the usual printed exceptions, and

1. 1980-1981 taxes a lien but not yet payable.
2. 1979-1980 taxes, \$252.90, unpaid. Account No. 61010CA300. Co No. 1003.

NOTE: The tax amount stated above does not reflect a reduce amount based upon tax relief; upon proper application and qualifica certain residential properties as defined may be entitled to relief pursuant to House Bill 2540, Chapter 241.

3. The premises herein described are within and subject to the statutory powers of Sunset Empire Park & Recreation District
4. Restrictions and right of ways for certain ditches and water pipes, said restrictions being contained in the Deeds record in Deed Book 9 page 774 and Deed Book 23 at page 392.
5. Subject to the right of ways of both the State Highway Dept. and the S.P. & S. Railway Company.

"THIS REPORT IS FOR THE EXCLUSIVE USE OF THE PARTIES HEREIN SHOWN A IS PRELIMINARY TO THE ISSUANCE OF A TITLE INSURANCE POLICY AND SHAI BECOME VOID UNLESS A POLICY IS ISSUED, AND THE FULL PREMIUM PAID."

NOTE: Although the following will not appear in the Title Policy it should appear in any conveyance:  
Also there is hereby created for the use and benefit of the above described property and the tract of land immediately North thereof an easement consisting of a strip of land ten feet wide and extending a distance of approximately ten feet East of the present existing residence building which said land shall be for the permanent use of the purchasers herein and the owners of said tract immediately North of the property herein described and to their heirs and assigns forever, that said tract shall consist of the North five feet of the property herein described and the South five feet of the abutting property immediately to the North thereof.

NOTE: We find no judgments against Philip L. Mancill or Deanna L. Mancill.

COAST TITLE COMPANY

*John R. Corning*  
John R. Corning  
President

JRC/hb

cc: Department of Veteran Affairs, 1315 Third, Tillamook, Oregon 971

EXHIBIT "A"

Beginning at a point in the center of the Spokane, Portland and Seattle Railway Company's right of way on the North boundary line of the Sara L. Byrd Tract of land, which point is 3306.6 feet more or less South and 2567.2 feet more or less East of the Northwest corner of Section 10, Township 6 North, Range 10 West of the Willamette Meridian; and which point is also 217.6 feet more or less East of the Southwest corner of what is known as the Clara Stanley tract and which Southwest corner of the Clara Stanley tract is recorded as being 50.10 chains South and 35.60 chains East of the Northwest corner of said Section 10 Thence Northerly along the center line of said Spokane, Portland and Seattle Railway Company's right of way about 787.8 feet to the center of county road No. 178 and which said last mentioned line is the Western boundary line of that certain tract of land conveyed by George M. Hawes and L. Mildred Hawes to Jacob Oster by Deed dated January 6, 1925, and recorded on January 10, 1925 in Book 115 page 640 Deed Records of Clatsop County, Oregon; thence Westerly along the center of said county road about 256.6 feet to the center of the State Highway; thence Southerly along the center of said State Highway a distance of approximately 296 feet to the place of beginning of the tract herein conveyed; thence Easterly parallel to the center line of said county road to the center line of said S. P. and Seattle railway company's right of way; thence Southerly along said center line of said S. P. & S. Railway right of way a distance of 70 feet; thence Westerly parallel to said center line of said county road to the center line of said Oregon State Highway; thence Northerly along said center line a distance of 70 feet to the place of beginning.

8/18/80

*[Handwritten signature]*

1003-610-10CA  
300

494-453

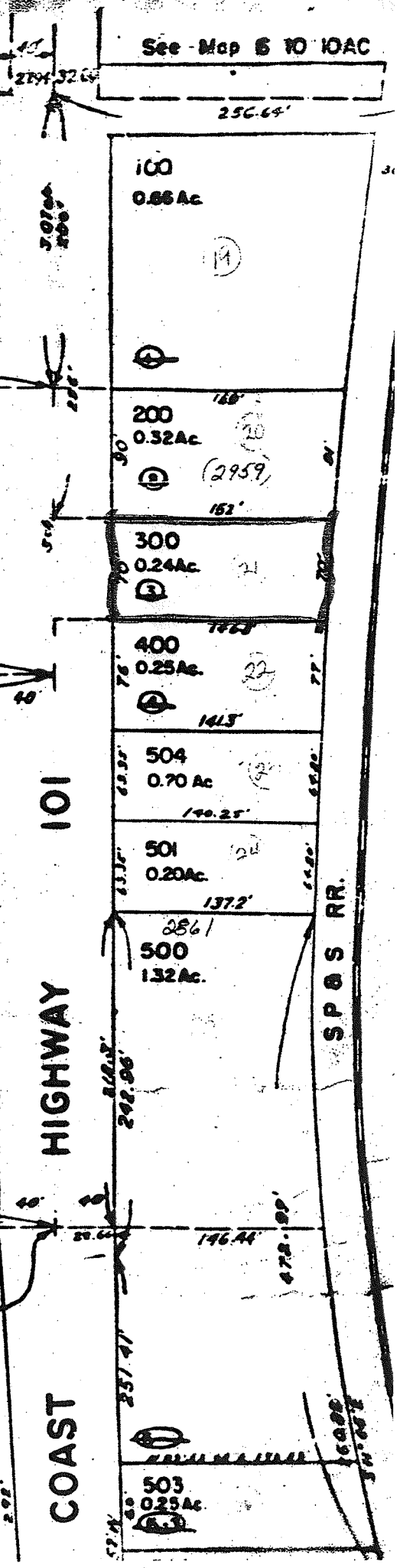
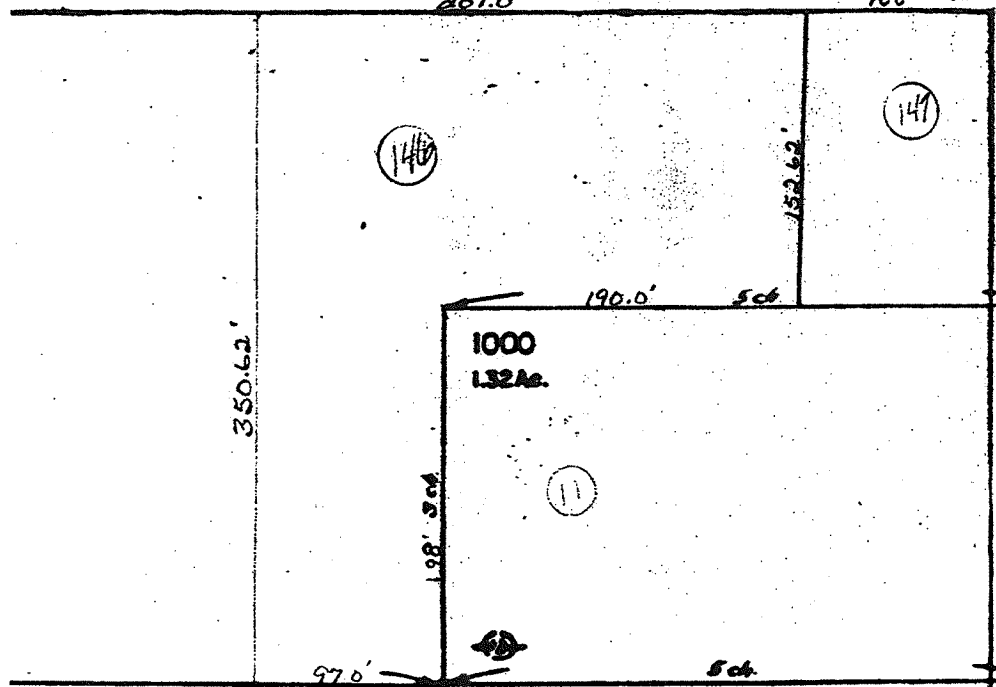


1" = 100'

See Map 6 ID 1080

See Map 6 TO 10AC

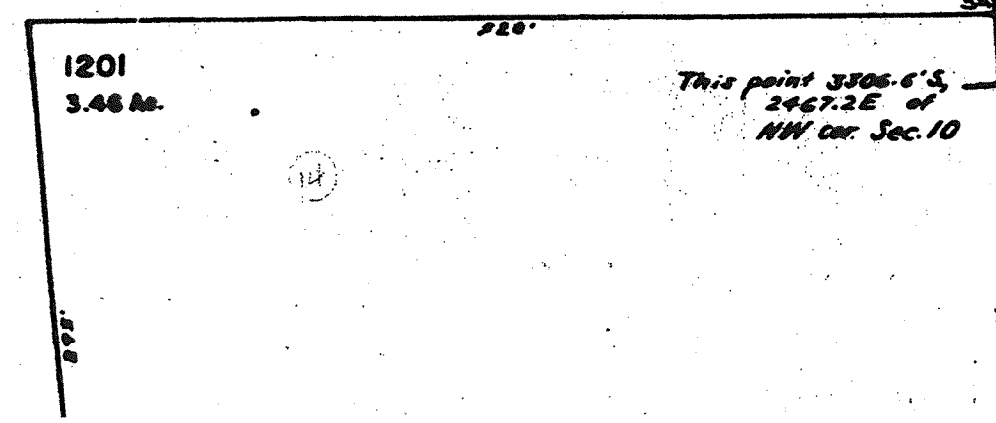
COUNTY ROAD



This sketch is furnished to help you locate the property. It is not a survey and the company assumes no liability for errors.  
 Coast Title Company 738-8411



10-03



This point 3306.6'S,  
 2467.2E of  
 NW cor. Sec. 10

HIGHWAY 101

HIGHWAY 101

COAST

SP&S RR.



Gearhart City Council  
November 20, 2024

Dear Mayor and Councilors,

I'm writing to correct some misinformation presented in the November council meeting about mowing of noxious weeds in the dunes. I'll quote then respond, and for reference have pasted the entire transcript at the end of this letter.

*sometimes Scotch broom sometimes Blackberry sometimes those*

*38:42*

*other things that are are mowing out there a lot of the Condominiums and that believe that the continued mowing is*

*38:49*

*keeping a lot of those noxious weeds down as well and uh so that was part of the*

*38:54*

*vegetation ordinance through those activities...*

*here what we have is in the two different types of beach dune grasses that we have and this is*

*39:07*

*according to Kathleen Sayce who is the ecologist that helped the city through that process if you mow the beach*

*39:14*

*dunes grasses down and also getting rid of the uh noxious weeds what generally happens is that the grasses*

*39:21*

*grow back faster and choke out those weeds and if the grasses are healthy and the weeds have not been left to*

*39:27*

*prolificate [sic] then the grasses will come up stronger and then choke those weeds out and so there's less maintenance*

**The above is simply false and contradicted by abundant botanical research and casual observation throughout Gearhart.**

Beachgrasses cannot be assumed to have the ability to outcompete and kill all noxious weeds that have been mowed. They certainly can't outcompete and kill mowed Scotch broom; if they could, then broom would not be the management nightmare that it is in Clatsop County dunes, and has been for the last hundred years, and will be for all the foreseeable future.

Plenty of weeds, noxious or not, thrive in mowed lawns, where grasses are far more competitive than beachgrasses. Many of the noxious weeds in the dunes probably arrived there via nearby mowed lawns that grew to seed. One of the reasons weeds are rated as "noxious" is precisely because they survive in mowed lawns and compete successfully against grasses of all kinds to persist there indefinitely. Scotch broom is one of those species. So are Japanese knotweed, Canadian thistle, bull thistle, and all blackberries. Beachgrass grows less densely and is less competitive than most lawn grasses.

The consensus of botanical opinion about mechanical control of broom is that individual hand pulling or cutting of stems at or below the ground surface can effectively kill the plant if done during the summer, but that mowing is generally ineffective because it leaves too much of the stem above ground, and with enough resources to resprout. Resprouting broom generally outcompetes any surrounding herbaceous vegetation because it has enough resources to fix nitrogen, effectively fertilizing itself, and to quickly grow upwards to light above the herbs and grasses.

Mowing also has a myriad of long-term negative effects, including destruction and death of native plants, animals, and dune habitat (in violation of Gearhart's vegetation ordinance); stimulation of aggressive resprouts of broom and other noxious weeds; erosion and scarification of the soil; stimulation of seed germination of noxious weeds; maintenance of a perpetually disturbed habitat that is optimal for proliferation of all weeds. Mowing benefits weeds over the long term even though it "takes them down" in the short term, just like mowing your lawn maintains a perfect habitat for dandelions even though cutting them.

You can easily see weeds thriving in mowed areas in any casual walk through the dunes. You can see for example that the aggressively mowed areas at the foot of the Ocean Avenue ridge are filled with extremely dense populations of broom, despite being mowed repeatedly and surrounded by three species of beach and dune grasses and numerous other competing plants. They have resprouted from cut stumps and easily survived any competition from surrounding grasses.

One of the first areas mowed repeatedly, below the Warren lot at 862 Marion, has grown up so dense with broom that it was difficult to walk through this summer. Just as predicted, mowing stimulated resprouts and seed germination, and broom plants are thriving here, as healthy as they can possibly be, and produced enough seeds just this summer to populate the entire BAD zone for probably a century. They are completely unhindered by any competition with beachgrasses or any other grasses. In total there are still probably more than a million broom plants in the areas repeatedly mowed along the foot of Ocean Avenue dune. They are still there, still growing, photosynthesizing, still fixing nitrogen and essentially fertilizing themselves and maintaining a habit for themselves and other nitrophilous exotic invasive weeds. In areas recently mowed the broom plants are small, but their density is still enormous and they are poised to spring back up the first season mowing stops, along with all the other noxious weeds in those mowed areas. They did exactly that this summer under the Warren property; it is a tsunami of Scotch broom.

Not just the dunes, but in mowed lawns throughout Gearhart you can also observe abundant broom and noxious weeds. On the western lawn of Leslie Miller Park, for example, there are hundreds of small Scotch Broom individuals thriving in the lawn, and have continued to survive and photosynthesize there for decades. This is a lawn that has been mowed repeatedly every year for decades. Yet the broom population continues, as resprouts close to the ground are untouched by mower blades, and are unstopped by grass competition, ready to spring back into action as soon as the mowing stops. Any plant with stem cells close to the ground, below mower blades, can thrive in lawns and mowed dunes. Because broom also fixes nitrogen, it has a big competitive advantage, and can persist indefinitely.

Another example: the prickly sandmat, *Cardionema ramossisima* at Leslie Miller Park, thrives in mowed lawns, and its seeds inoculated the dunes from a large source reservoir growing in Gearhart lawns. It persists only in disturbed areas in the BAD overlay zone: mowed, trampled, repeatedly overdriven in tire ruts. This is a noxious weed in Washington but hasn't made the Oregon list yet. Not

only does it persist in mowed lawns, it actually survives to set seed, which is then spread all over the dunes.

can look at the area in front of the Condominiums and see what their grass is it's kind of a monoculture with just the

39:40

grasses that they have with a little bit of noxious weeds versus what we have on the south side of the city where we have

39:48

not been that active in Mowing and know we're dealing with a lot more um

39:53

blackberries blackberries Scotch broom especially and that sort of thing so there was

**If mowing has created a monoculture of grass, then no mowing is necessary anymore.** “A little bit of noxious weeds” is not a justification for mowing by anybody’s standard. In reality, mowing has done nothing to reduce the broom population in front of the condos, the broom is still there living and growing, just below the mower blades, just like in the southern dunes. Plus, all the usual lawn weeds, perfectly happy growing there in their mowed lawn habitat. Much grading and earth movement has been done in front of the condos over the years, and even that hasn’t killed the broom or the pines.

Mowing of state land (west of the permanent vegetation line PVL) was mentioned at the council meeting: this has nothing to do with noxious weeds. There are no noxious weeds west of the permanent vegetation line. This is unstable open dune with no soil, exposed to salt spray, and none of Gearhart’s noxious weeds can maintain a population here. Mowing here is done solely to prevent height accretion to the dune, to preserve the ocean view. Residents at Palisades and Highlands have also mowed a 60-foot-wide band along the eastern side of the PVL for many years. This also has nothing to do with noxious weeds. It’s just a continuation of the mowing to prevent dune vertical growth. The idea is sand blows inland and falls over a much wider area, rather than building a tall ridge at the backshore that blocks the view. If Gearhart is granting these permits, they have nothing to do with noxious weeds or fire hazard. There is no fire hazard from grass and ferns 400 feet from any structure, and there are no noxious weeds in this mowed band.

Further,

*according to Kathleen Sayce... if you mow the beach*

39:14

*dunes grasses down... what generally happens is that the grasses*

39:21

*grow back faster and choke out those weeds.*

**Nowhere in Kathleen Sayce's report did she state that beachgrass outcompetes and kills broom plants and all other noxious weeds that have been recently mowed.** On the contrary, Sayce's report

said something quite different. She did not recommend to mow wherever there was a noxious weed present. She said, literally, "mow only those areas with woody species... The areas to mow are those with numerous tree seedlings, blackberry thickets and Scots broom patches... there is no need to mow areas that have only wildflowers and grasses..."

Even for Sayce, mowing would not be "reasonably necessary" under most circumstances, probably 70-80% of the BAD, from the estuary north to Del Rey. "No need" = not reasonably necessary. Therefore mowing on most public, city-owned property would be a direct violation of the Gearhart vegetation ordinance, if Gearhart had adopted Sayce's recommendations.

In Sayce's words, "Most species are best mown or cut down in winter, and treated with herbicides in summer. Work with Clatsop Soil and Water Conservation District on optimal control methods... Mowing followed by herbicides on sprouting crowns is an effective control method... Hand pulling small plants, and use of herbicides on stumps and larger plants is effective... Holly stumps re-sprout when cut down, so herbicides or stump pulling [not mowing] are used to remove them."

Obviously, if she believed that competition by grasses would simply kill mowed stumps, she would not be requiring that herbicide be applied to kill mowed stumps.

And,

*according to Kathleen Sayce who is the ecologist that helped the city through that process...  
39:14*

**Sayce did nothing to help draft the vegetation ordinance.** The Dunes Advisory Committee DAC drafted a recommended ordinance text. I helped write it. Sayce was not a member of the DAC, nor was she hired by the city. She was just one of dozens of private citizens who spoke out, but had the benefit of being paid by another private citizen to promote tree removal by mowing. The DAC, and its council liaison Kerry Smith, explicitly rejected Sayce's mowing suggestions, and rejected mowing as not "reasonably necessary" for noxious weed control anywhere in the city-owned dunes, and DAC supported that conclusion with references to scientific publications. We drafted recommended ordinance text in support of this consensus science result, not Sayce. Mowing benefits noxious weeds, over the long-term.

*keeping a lot of those noxious weeds down as well and uh so that was part of the  
38:54  
vegetation ordinance through those activities...*

**Simply not true. "Mow the dunes and the grass will overgrow and eliminate the weeds" is not part of Gearhart's vegetation ordinance, nor did it motivate anything whatsoever in the ordinance.** That myth was never put forward by any expert. The ordinance allows mowing on private land because it's private land (out to 100 feet from structures). Nothing in the ordinance permits outright mowing anywhere on public land, just because there's a "little bit" of weeds growing there.

**Weed control in the BAD.** So as not to end this on a negative note, here's the only way to control noxious weeds in Gearhart's dunes that does not involve chemicals, fire, or grading and earth movement. We discussed this in DAC meetings, and in a nutshell it's a strategy of 1. containment; 2. mechanical removal with brushcutters; 3. shrub enhancement. This could be done entirely in the summer using volunteer effort, with no more staff resources than currently required to permit mowing.

A powered hand brushcutter is much more effective in killing broom than mowing, and because it is selective and doesn't require heavy machinery it causes minimal damage to non-target species, doesn't stimulate seed germination, doesn't spread seeds, doesn't erode and scarify the soil, and can be used any time of year.

The gold standard method of long-term control of Scotch broom and Himalayan blackberry is shrub enhancement, used by GOs and NGOs everywhere. This, unlike mowing, is the only method that is both effective and permanent. The Gearhart dunes are an ideal location for shrub enhancement. Just about any native shrub will overgrow and eliminate any noxious weed: salmonberry, Oregon grape, thimbleberry, waxmyrtle, rhododendron, azalea, huckleberry.

There are many people who love Gearhart dunes and are retired and would enthusiastically volunteer to assist. The important fact to remember about Scotch broom, however, is that it is a monster to control, and we would have to be satisfied with an incremental approach, converting a small manageable area per year. This strategy would control all noxious weeds, not just broom. It would also greatly enhance the native habitat value of the dunes, and the recreational value. An annual summer event that would bring the community together.

Just to be clear, nobody asked me to write this letter, knew I was writing it, nor am I receiving any benefit. I'm writing because I care about Gearhart, its open spaces, its native species, its Comprehensive Plan, and being scientifically informed. I've appended references below, and am happy to answer any questions.

Thanks everybody for reading and thinking about this.

Stewart Schultz, Ph.D. Botany, University of British Columbia 1993  
Professor of botany, marine ecology, ecological genetics, physical oceanography, statistics, University of Zadar  
PO Box 575 Rockaway Beach OR

P.S. **I've attached** the Sayce report to this email so that anybody can see she never advised Gearhart that they could just mow the dunes and then sit back and watch the grasses "choke out" all the weeds. I've also attached the DAC recommended ordinance showing that DAC never approved the mowing rationale stated in the meeting. I've also attached audio of one of the last meetings in which council representative Kerry Smith stated that mowing would not be done on city property (for the reasons summarized above and referenced below).

**Here are some references from peer-reviewed botanical literature in support of my main points.**

**Mowing is not recommended as a management tool for controlling Scotch broom.** It is ineffective in controlling broom and creates a habitat that welcomes invasion by exotics: "Because mowing with removal of cut material was ineffective in reducing woody cover [incl. Scotch broom] and tended to promote non-native herbaceous species, this treatment is not recommended as a management tool." Clark, D. L., & Wilson, M. V. (2001). Fire, mowing, and hand-removal of woody species in restoring a native wetland prairie in the Willamette Valley of Oregon. *Wetlands*, 21(1), 135-144.

**Mowing Reed Ranch has caused an increase in frequency of Scotch broom stems due to recruitment from seed bank, and overall an increase in exotic invasive species cover.** "The following non-native life-form groups increased significantly following mowing treatments: annual forbs, annual grasses, and perennial shrubs. Invasive perennial pasture grasses were present in all 90 plots before and after mowing treatments... Results suggest that mowing treatments or a combination of different treatments would need to be implemented over many years to significantly reduce Scotch broom populations and enhance native coastal meadow habitat." Celeste Coulter, (2010). *Eliminating Invasive Introduced Species While Preserving Native Species in Coastal Meadow Habitat, a Critically Imperiled Ecosystem*. NCLC publication.

**Grasses don't "choke out" broom resprouts:** "However, higher levels of vascular plant cover had no significant ( $P < 0.64$ ) effect on emergence of broom, which was 42% in the untreated and 39% in the fertilised treatment with high vascular plant cover." Ledgard, N. J. (2006). The effect of competition and use of fertiliser on the seedling emergence of introduced gorse (*Ulex europaea*) and Scotch broom (*Cytisus scoparius*). *New Zealand Plant Protection*, 59, 8-11.

**Mowed resprouts are not "choked out" and need to be killed by other methods to be effectively controlled:** "Differences in responses of woody plants to burning, mowing, and hand-removal can be understood in terms of processes at the level of the individual. All the woody species in this study [incl. Scotch broom] can resprout after removal of their aboveground biomass (Pendergrass 1996, Clark and Wilson, personal observation) and, hence, have the potential for quickly regaining cover. Thus, lasting reduction of cover of these species requires killing individual plants [e.g. by fire, hand removal, or herbicide]." Clark, D. L., & Wilson, M. V. (2001). Fire, mowing, and hand-removal of woody species in restoring a native wetland prairie in the Willamette Valley of Oregon. *Wetlands*, 21(1), 135-144.

**Mowing resprouts are not "choked out" but survive to restore cover:** "Mowing left more basal stem intact and did not reduce cover as effectively as hand clipping." Clark, D. L., & Wilson, M. V. (2001). Fire, mowing, and hand-removal of woody species in restoring a native wetland prairie in the Willamette Valley of Oregon. *Wetlands*, 21(1), 135-144.

**Even carefully hand-cut broom stems resprout if cut off-season:** Figure 7: 95% of Scotch broom plants hand cut at ground level survived and resprouted in January and March 1988. Bossard, C. C., & Rejmanek, M. (1994). Herbivory, growth, seed production, and resprouting of an exotic invasive shrub *Cytisus scoparius*. *Biological Conservation*, 67(3), 193-200.

**What does "choke out" noxious weeds? Shrub enhancement! It's the gold standard for noxious weed control:** "Replant the affected area [of Scotch broom infestation]... with a variety of native shrubs, trees, and ground cover plants." <https://solvepestproblems.oregonstate.edu/weeds/broom>



**Verbatim transcript 36:35 to 41:16, November 6, 2024 Gearhart city council meeting, containing the excerpts above, for reference.**

<https://www.youtube.com/watch?v=tRIY3L6bJRU&list=PLx2jxAKla6Zflg84MRL32dpcVoXuy2VIC>

Smith: I got a question on these Dune access applications are they  
36:35  
private?

Sweet: uh so far yes uh one was in front of the Condominiums 10th Street uh  
36:42  
where they can mow up to the dune vegetation line uh one was uh a uh  
36:48  
private person just lives beyond just 13th Street in the highlands area where  
36:54  
they had uh to get permission from the city to uh mow up to the Dune vegetation line  
36:59  
and then they also have permission from the state of Oregon to mow beyond that  
37:04  
as well and so they accomplished that and then I've got a another one that was  
37:10  
just coming in in front of one of the other condo units as well to do some  
37:15  
Mowing and

Smith: and that's dune access?

Sweet: yeah

Smith: it's not Dune mowing?

Sweet: correct  
37:24  
let see so we give them access as long as what they they were doing is along with our vegetation ordinance so if they  
37:31  
wanted to go out there and they were able to mow the dunes to keep noxious weeds down uh or for Fire Reasons those  
37:39  
applications are Justified under the ordinance and we're allowed to let them access the dunes but they can't access  
37:46

the dunes and so the city gives them permission we give them parameters sometimes before after and during

37:51

pictures walkthroughs before and after it includes uh conversations about the

37:56

vehicles being clean without uh uh any noxious weeds attached to them that are

38:02

going to be out there where people can access the dunes and where they can't access the dunes to get out there those

38:08

sorts of things try to accomplish all that along with maps that we have of the mowing area uh so that we're all on the

38:15

same page and uh sometimes uh well most times also having firefighting equipment

38:22

available to those folks that are doing the work and then so that they notify us so that we know what's happening when

38:29

Smith: okay

Kloepfer: so if you you're mowing they're mowing noxious weeds to cut down on the

38:36

seed dispersal or

Sweet: sometimes Scotch broom sometimes Blackberry sometimes those

38:42

other things that are are mowing out there a lot of the Condominiums and that believe that the continued mowing is

38:49

keeping a lot of those noxious weeds down as well and uh so that was part of the

38:54

vegetation ordinance through those activities

Kloepfer: even though when you cut stuff it just comes back even strong stronger?

Sweet: normally

39:01

that is true but here what we have is in the two different types of beach dune grasses that we have and this is

39:07

according to Kathleen Sayce who is the ecologist that helped the city through that process if you mow the beach

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dunes grasses down and also getting rid of the uh noxious weeds what generally happens is that the grasses

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grow back faster and choke out those weeds and if the grasses are healthy and the weeds have not been left to

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proliferate [sic] then the grasses will come up stronger and then choke those weeds out and so there's less maintenance you

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can look at the area in front of the Condominiums and see what their grass is it's kind of a monoculture with just the

39:40

grasses that they have with a little bit of noxious weeds versus what we have on the south side of the city where we have

39:48

not been that active in Mowing and know we're dealing with a lot more um

39:53

blackberries blackberries Scotch broom especially and that sort of thing so there was

40:00

there was in the ordinance that was one of the reasons to allow for that type of Mowing we do keep them away from the uh bird

40:09

nesting season and the state of Oregon is even pushing them out even longer uh

40:14

into just the winter times to do mowing uh as well so we work collaboratively

40:20

with the the owner to make sure that we are not giving any um we have no

40:25

jurisdiction out past the dune vegetation line and we're very clear with that they have to get permitting through the state we

40:31

work with the state to help it

Watts: and the OPD generally only will give them one

40:36

permit per year and they'll specify when it can be it's usually late October

40:41

November because of their their concerns about fire um they're that line that

40:48

they can mow for the state was established in I believe 1967 it's at

40:54

that point that's where the ocean went to and so there is a process they could

41:00

use in order to challenge the location of that um through the statute that

41:06

governs that uh thus far they have not done that but that is something that

41:11

could happen in the future they would impact uh their ability to mow and our

41:16

ability to regulate.



ADOPTED 07-07-2017

Recommendations to the Gearhart City Council from the Dunes Vegetation Committee

Introductory Notes:

A. The Beaches and Active Dunes Overlay District (the "B.A.D. Overlay District") is defined in Section 3.12 of the City of Gearhart's Zoning Ordinance (the "Ordinance"). Sub-Section 3.1240.2.D regulates the pruning and trimming of vegetation within the B.A.D. Overlay District, and Sub-Section 3.1240.2.E regulates the use of motor vehicles within the B.A.D. Overlay District.

B. In April 2017, the City Council of the City of Gearhart (the "City") created the Dunes Vegetation Committee (the "Committee"), comprised of both permanent and part-time Gearhart residents as well as other interested parties. The City requested that the Committee study the issues concerning vegetation and vehicle access within the B.A.D. Overlay District and then make recommendations to the City Council regarding potential changes to the Ordinance which would be in the public interest.

C. The Committee has now completed its work and hereby submits four recommendations to the City Council. These recommendations reflect compromises which have been accepted and endorsed by a majority of the Committee's members. However, the Committee wishes to acknowledge that some members of the Committee do not agree with some portions of these recommendations.

**Recommendation No. 1:** The existing provisions of Ordinance Section 3.1240.2.E (concerning Vehicular Access to Dune Areas) should be repealed, and the following provisions should be adopted in their place:

E. Motorized Vehicles

*It is the City's policy to limit the use of motorized vehicles within the B.A.D. Overlay District to only such uses as are reasonably necessary, as further specified below. **Therefore, all motorized vehicles are prohibited within the B.A.D. Overlay District, except as specifically provided below.** (For the purposes of this section, the term "motorized vehicles" shall include automobiles, trucks, motorized mowers, brush hogs, and other similar motorized equipment.)*

*(1) Emergency vehicles (police, fire and ambulance) are permitted to operate within the B.A.D. Overlay District as reasonably necessary for law enforcement purposes and in response to actual emergencies.*

*(2) Non-emergency vehicles operated by the City or its contractors are permitted to operate within the B.A.D. Overlay District as reasonably necessary for maintenance of equipment associated with the City's water system.*

*(3) Motorized mowers, brush hogs, and other similar motorized equipment are permitted within that portion of the B.A.D. Overlay District lying within 100 feet of the building edge of any residential structure.*

*(4) Other than as provided in paragraphs A, B, and C above, vehicles may operate within the B.A.D. Overlay District only with advance permission from the City as evidenced by a vehicle access permit issued by the City Administrator. The City Administrator may issue such a permit to any public or private owner of real property contained within or abutting the area within the B.A.D. Overlay District, or to such property owner's contractor or agent, upon receipt of an application from such property owner specifying: (a) the purpose of the requested access, (b) the type of vehicle for which access is requested; (c) the specific areas of the B.A.D. Overlay District for which access is requested, including the proposed location at which any permitted vehicle will enter and exit the B.A.D. Overlay District; and (d) the dates and hours of day on which access is requested.*

*Upon receipt of such an application, the City Administrator shall issue a permit to the applicant if the City Administrator determines that the access requested by the applicant is reasonably necessary in order for the applicant to conduct lawful activities on property owned by such party (and otherwise permitted under this Ordinance) and that the requested access will not cause unreasonable environmental damage to the B.A.D. Overlay District. Any such permit shall state the period of time during which the permittee shall be allowed to operate a vehicle within the B.A.D. Overlay District (including specific dates and hours of day), as well as the specific areas in which such operation is allowed, the type of vehicle for which access is allowed, and the activities which may be performed with the allowed vehicle.*

**Recommendation No. 2:** In order to prevent the use of motorized vehicles which is prohibited under the Ordinance, the City should install locked gates (or other access control devices) at all points where motorized vehicles are able to enter the B.A.D. Overlay District.

**Recommendation No. 3:** The existing provisions of Ordinance Section 3.1240.2.D (concerning Pruning and Trimming of Vegetation) should be repealed, and the following provisions should be adopted in their place:

**D. Pruning, Trimming and Removal of Vegetation**

*It is the City's policy to limit the removal, destruction or uprooting of vegetation within the B.A.D. Overlay District, except as reasonably necessary to accomplish the following objectives: (a) elimination of diseased or dead vegetation, (b) elimination of noxious weeds, (c) limited pruning, thinning, and removal of trees for the purposes of preventing the spread of forestation beyond areas which are already heavily treed, managing views, reducing the risk of fire, and otherwise enhancing public safety, and (d) within the area lying within 100 feet of the building edge of any residential structure, mowing of beach grass and small shrubs and removal of trees for ornamental and fire-prevention purposes, all as more particularly described below.*

***Therefore, all removal, destruction or uprooting of vegetation is prohibited within the B.A.D. Overlay District, except as specifically provided below:***

**(1) Diseased or Dead Vegetation** Every public and private owner of real property within the B.A.D. Overlay District is permitted to remove any diseased or dead vegetation from the property owner's own property.

(2) Noxious Weeds Every public and private owner of real property within the B.A.D. Overlay District is permitted to remove noxious weeds from the property owner's own property. For the purposes of this section, "noxious weeds" shall include Scotch Broom and all other plant species which are listed as noxious weeds by the Oregon Department of Agriculture.

(3) Trees Every public and private owner of real property within the B.A.D. Overlay District is permitted to prune, trim, or remove from such property any tree located on the property owner's own property which has a trunk diameter of six inches or less, with such diameter being measured at a height of four and one-half feet above ground level. Each such property owner is also permitted to prune and trim any tree located on the property owner's own property which has a diameter exceeding six inches, measured at a height of four and one-half feet above ground level, but any such pruning or trimming of such larger trees shall be limited to limbing-up to a height of six feet above ground level, or removal of not more than 20% of the tree's then-current growth above ground level, whichever is less, and with any such pruning or trimming being performed no more frequently than one time during any 12-month period ("topping" of trees is not permitted).

(4) Fire Buffer Safety Zone Every public and private owner of real property within the B.A.D. Overlay District is permitted to remove from such property owner's own property any tree which is located within 100 feet of the building edge of any residential structure, and each such property owner is permitted to mow to ground level any beach grass, small shrubs, and other vegetation which is on such property owner's own property and within 100 feet of the building edge of any residential structure.

(5) Any property owner which engages in any of the vegetation-management activities which are permitted under this section is required to properly remove from the B.A.D. Overlay District substantially all of any debris of organic material which results from such vegetation-management activities promptly after such activities have taken place.

(6) Any action which a property owner is permitted or required to take under this section may be taken by the property owner either directly or indirectly (through the use of a contractor, or agent, or by allowing a third party to take the permitted action with the property owner's consent).

(7) The City shall make available to the public a written set of guidelines which shall advise property owners regarding methods for permitted pruning, trimming, and removal of vegetation which are recommended in order to make such efforts effective, while mitigating potential negative impact to other surrounding vegetation or to nearby wildlife and wildlife habitat.

Recommendations from Dunes Vegetation Committee

July 7, 2017

Page Four

**Recommendation No. 4:** The Committee notes that, in addition to the provisions of Section 3.12 which regulate vegetation-management activities within the B.A.D. Overlay District generally, there is also a provision in Section 6.195 of the Ordinance (6.195.5.C) which allows the City Administrator to issue a permit for removal of trees which are larger than 12" diameter (measured at a height of four and one-half feet above ground). The provision in Section 6.195.5.C is not consistent with the Committee's Recommendation No. 3 and, therefore, the Committee recommends that Section 6.195.5.C be repealed.

Respectfully submitted by the Dunes Vegetation Committee

July 7, 2017



# Gearhart Foredune Woody Vegetation Management

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August 20, 2016

## Gearhart Foredune Vegetation Management

### Purpose

The purpose of this paper is to provide the City of Gearhart and residents with an understanding of dune ecology and vegetation management options for the foredune, west of the residential area, with three management options, a no action option, a woodland option (leaving some woody vegetation), and a grassland option (mowing all woody vegetation).

The area discussed in this paper is bordered by 7<sup>th</sup> Avenue on the north end, the Necanium Estuary on the south, residences on the east side, and the Dune Hazard line on the west side. See map for reference, showing City of Gearhart property overlays in green, on aerial of foredune, 2014.



### Introduction

Dunes in Gearhart, Oregon have undergone rapid changes in the past two hundred years, transforming from diverse prairies to grass monocultures. Today, the dunes are grasslands. Remnants of the historic, diverse dune prairie live in small patches, well back from the present foredune near the west line of buildings.

At the same time, land management practices changed from small, fairly regular fires to largely suppressed fire. This allowed both native and introduced woody species to rapidly colonize soils behind the outermost dune.

Sediment management at the Columbia River Entrance also changed, and altered the sand accretion rate from several millimeters per year to many feet per year. In the 1950s there were no dunes west of the west line of residences. Accretion of sand formed a series of dunes westward. European beachgrass (*Ammophila arenaria*) and other plants moved naturally into these new dunes.

This presents several management situations for the City of Gearhart.

- First, the volume of wood that can fuel wildfires has increased significantly as shore pine, Sitka spruce, Scots broom and other woody species spread.

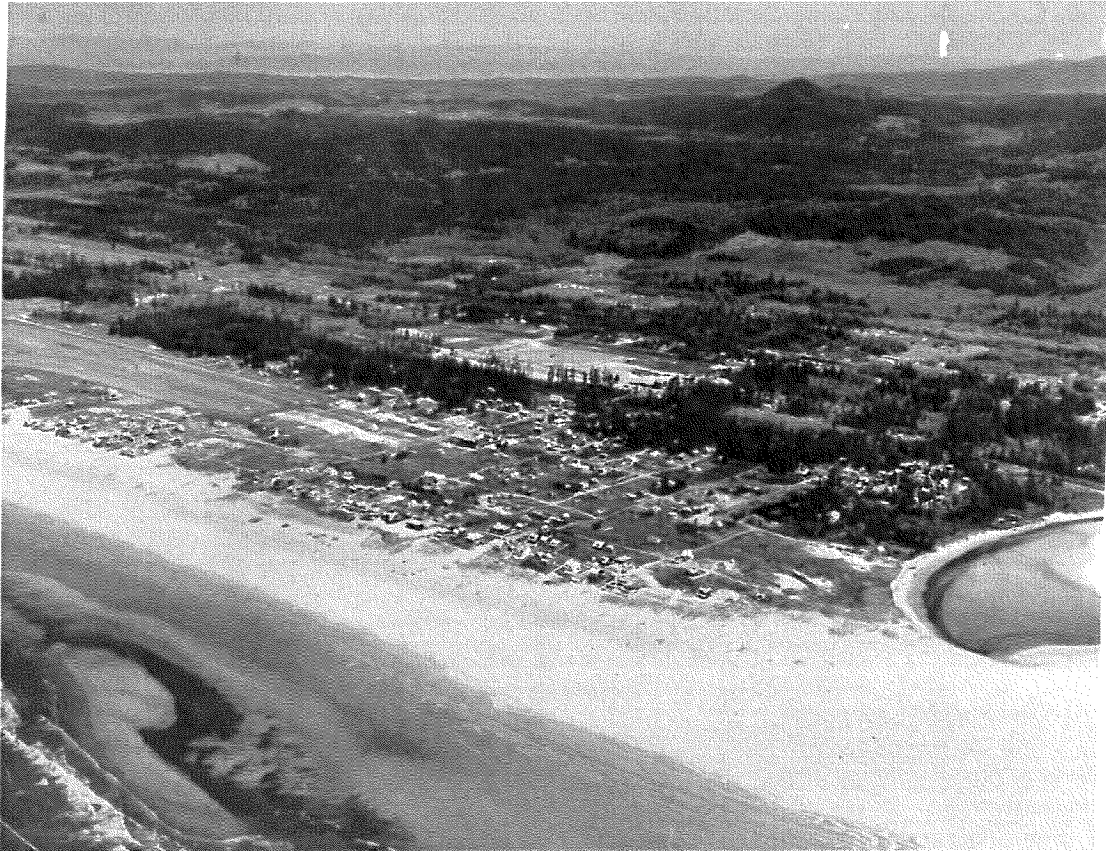
- Second, some plant species are state-listed noxious species that should be controlled.
- Third, food resources and cover have been created for many animals, including Roosevelt Elk and Black-tailed Deer, so that these species live immediately adjacent to and in the urban residential areas. Interactions with these species have increased.
- Fourth, the young coastal forests present increased opportunities for human-human and human-wildlife interaction hazards. Public safety has declined.
- Fifth, for coastal residents, visitors and others in the City of Gearhart, ocean views are vanishing into the new coastal forest.

The following matrix compares ecological values and Gearhart community values for three management options.

<b>Gearhart Ecological and Management Options Matrix</b>	<b>No Action: Woody species dominate</b>	<b>Partial Clearing: Some woody species remain in clusters</b>	<b>Maintain Grassland, no woody species</b>
Large Animals	High usage	High usage	High to moderate usage
Small Animals	Moderate to high usage	High usage	Moderate usage
Birds	Moderate usage	High usage	Moderate usage
ESA-listed Species	NA [young forest]	NA	Low, unless prairie is created in grassland areas
ESA-listed Species	Low [old forest, > 100 yrs old]	Low [old woodland conditions]	Low, and see comment above
Plant Diversity	Low [forest conversion]	Moderate	Moderate to high; highest if coastal dune prairie species are used
Noxious Plants	High	Moderate to high	Low
Wetlands	NA	NA	NA
Human-Animal Hazardous Interactions	High [cover for many animals]	High to moderate [some cover]	Low [no cover]
Human-Human Hazardous Interactions	High	High to moderate [some cover]	Low [no cover]
Adjacent Resident Hazards	High	High [some cover]	Low [no cover]
Woody fuel for fire	Highest woody fuel level	High to moderate fuel level	Low woody fuel level [also maintain mown strip each summer]
Potential for fire to move into residential areas	Highest	High to moderate	Moderate to low [maintain mown strip each summer]
Ocean views	Low to no viewscape potential	Low to some viewscape	Highest viewscape potential

### **Past Conditions**

Historically, the dunes in Gearhart were a fire-maintained landscape. In this climate, except on very wet or very thin dry soils, prairie and grassland plant communities naturally advance to forest. Fire is the key disturbance to this process that resets plant communities to prairie or grassland conditions.



Aerial of City of Gearhart, 1950, shows small area of foredune west of city, and wide summer beach to west, composed of open sand. A small remnant prairie composes the vegetation west of the city in 1950, with forest on the east side of town.

This region is part of the Coastal Temperate Rainforest Biome, a conifer-tree-growing region that grows trees more rapidly than most of North America, and stores more carbon in the soil, on the surface and in standing living and dead trees, than all other forest types in the world. It is also part of the largest, most diverse belt of conifers in the world, extending from Mexico to Alaska. Left to grow without disturbance (wind throw, logging, fire), conifer trees flourish here.

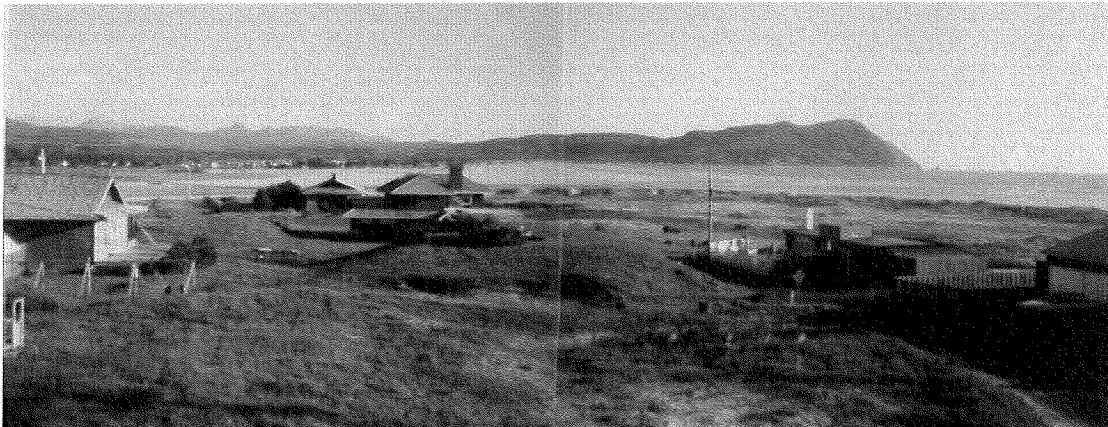
The Clatsop Tribe lived on the Plains for thousands of years, and had summer villages in several locations, typically close to freshwater streams. Keeping the Plains in prairie vegetation kept elk and deer close to the villages, and also promoted useful plant species

for food, fiber and medicine that prefer prairie conditions. Fire was their management tool. Occasional wildfires in the forests also occurred, probably started by lightning during dry seasons. The result was a patchwork of old growth and young forests in the hills, and coastal dune prairie along the ocean beaches.

Early 19<sup>th</sup> century explorers noted extensive “undulant grasslands” backed by dense forests in the hills to the east, and extolled the virtues of the Clatsop Plains for agriculture in letters, journals, reports and books, including members of the Lewis & Clark Expedition, James Dana of the Wilkes Expedition, and James Graham Cooper, naturalist and physician with the Northern Pacific Railway Survey. Cooper was the first early visitor to see the coastal dunes in May and June, when in full flower, and he wrote about it in glowing terms.

The outermost dunes supported wildflowers, sedges and grasses, growing in a luxuriant mixture. In late spring to early summer, this area was covered with wildflowers. A few hundred yards east of the beach, other grasses formed a denser meadow, growing with taller wildflowers over several dune ridges. This mix of grasses and wildflowers continued to the forest edge. Late 19<sup>th</sup> and early 20<sup>th</sup> century botanical explorers, including Lewis Henderson, T.J. Howell, Morton Peck and others wrote about this diversity and collected plants in the historic dune prairies along the North Coast.

Prior to jetty construction at the Columbia River Entrance early in the 20<sup>th</sup> century, sand accretion on ocean beaches was measured in millimeters per year. Afterwards, it was and is measured in tens of feet per year, occasionally alternating with periods of erosion, or retrograde movement of the beach face east into the dunes. This situation will persist so long as sediment management continues for the shipping channel in the river, and the jetties remain intact. The foredune west of the City of Gearhart will continue to build west as long as near-shore sand from the Columbia River is available in the surf zone.



September 1971, looking southwest towards Tillamook Head, foredune area is now grassland with a few small pines. West edge of city is still unforested.

## Present Conditions

Fire suppression is now the normal condition for the foredunes. This means that woody species, including shore pine (*Pinus contorta* var. *contorta*), Sitka spruce (*Picea*

*sitchensis*), and introduced shrubs such as Scots broom (*Cytisus scoparius*), evergreen blackberry (*Rubus armeniacus*), and many native shrubs, thrive between homes and ocean beach. See Appendix One for a plant list for the present foredune area.



This image, left, shows the present foredune and city. Dark green areas are trees in foredunes and in the city. The canopy linkage between these areas is increasing. Reducing woody fuel is now important. Areas that are light green-beige from the westernmost line of homes to the beach are locations where trees have already been removed.

Broom patches do not show in this image, but reducing this shrub is particularly problematic for fire management, because it is nearly as combustible as gorse (*Ulex europeaus*), and grows in dense stands, shading out many other species and providing, in the case of wildfire, a fuel link between grasslands, homes and forest areas.

Rapid accretion of sand has continued to this day, and provides European beachgrass with ideal conditions to continue to dominate the western foredune.

As the vegetation line moves west, older soils to the east mature enough to support woody species, including shore pine, Sitka spruce, black twinberry (*Lonicera involucrata*),



Pacific wax myrtle (*Myrica californica*), evergreen huckleberry (*Vaccinium ovatum*) and red alder (*Alnus rubra*). These species form the first, young coastal forest in the dunes. This forest is wind, salt and drought tolerant. It is also capable of regenerating after fire.

With increasing cover by woody vegetation comes an important public safety issue: Predators and people can hide more easily in dense cover than in open grasslands. Perception of safety in public areas varies with age and sex, and is a subconscious decision that we all make all the time when in public spaces. The most important test of safety for a community is to know where women with young children do and do not feel safe. They will not enter an unsafe area, unless there is no other option. Elders with diminished physical capacity have a similar reaction. This standard is used by planners world wide to design and improve public areas for their communities.

### **Options For Fore-dune Management—**

#### **No Action—Management Notes**

The fore-dune near the western edge of the city is a patchwork of Scots broom, blackberry thickets, and young coastal forest, with some areas of mixed grasses among these patches. It is transitioning from woodland (mostly open land between patches of trees) to forest (densely covered with trees, with little to no open land).

There are animals that thrive in dense forests, but many species prefer a more open, woodland condition. At this time, the transitional woodlands are optimal for elk, deer and other large animal species.

The greatest impacts for city residents are increased wildlife interactions, increased fire hazard, and impaired public safety, followed by loss of ocean views. Animal-human interactions are becoming more frequent as people, in yards and in the dunes, encounter wildlife in the densely vegetated areas. Negative human-human interactions are also more likely as cover increases in the wooded areas.

Uncontrolled fires are a significant safety hazard. During my site visits over the past few years, it is apparent that many residents have taken some steps to reduce wood fuel near residences, but this is not consistently applied across the dune landscape. See the last figure on page 6, which shows clearly which areas have been kept clear of woody species and which have not. The young forest is dark green, and patches of dark green show up throughout the fore-dune near residences.

At the least, a fire safety buffer should be implemented between western residences and wooded areas, where all woody species are removed. See the third option, Maintain Grassland, page 9 below, for specifics on fire safety buffers.

#### **Partial Clearing—Woody Vegetation Management Notes**

There are several ways to manage woody vegetation. A key reason to undertake woody species management is to improve fire safety and public safety. No woody vegetation

should grow within fifty feet of structures. Beyond this perimeter, trees should be limbed to reduce the ability of a grass fire to move into a tree canopy, and trees should be thinned, to reduce the ability of a canopy fire to move from tree to tree. There should be a canopy break between foredune forests and urban trees in the city, so that fires cannot easily spread into the city.

The foredune area provides habitat for many animals. Management activities in fall and winter generally reduce disturbance to animals.

The approach to management depends on the community's needs. For the partial clearing option:

Reduce fuel loads by thinning trees so that their canopies do not touch, cutting at ground level, then limbing up a minimum of six to eight feet. This method creates and maintains a woodland of widely spaced trees, instead of clusters of very dense forest. Limbing opens up the trees, spatially separating the canopies from the grassland. It creates a landscape where people feel safe: they can see easily through the trees, and the trees are widely spaced. Fires that start in the grass may reach some tree canopies, but with well-spaced trees, fires cannot spread easily from tree to tree.

If all woody vegetation is to be removed:

1. Remove tall woody species throughout the site by cutting down trees, removing logs more than 8 inches in diameter, chipping logs and branches under 8 inches in diameter, and grinding stumps. Bringing in any equipment from other sites carries the risk of introducing new weedy species if equipment is not properly cleaned between sites. See Equipment and Vectoring in of new species, below, and the brochure about cleaning vehicles and equipment.

2. Downed wood can be chipped on site, or removed. Chip layers should not exceed six inches in depth when initially spread, and no logs should be left on site. The cleared forest area should be well separated from the residential area: A minimum of two hundred feet is probably a safe distance. Chipping is best done with a chipper on site to reduce traffic in the foredune. There are already trees with diameters of more than twelve inches in the foredune [circumference of 38 inches or more at 4.5 ft from the ground, or DBH—diameter at breast height].

3. Fire is an alternative to reduce the volume of wood to chip. Use controlled burning to reduce standing wood, then clear out the dead wood afterward. This may reduce the standing volume of woody debris by half or more, and if hot enough, will almost completely remove small trees. The same cautions about clean equipment and vehicles apply. In addition, if partially burned wood is handled, workers must protect their lungs from fine soot particles and sooty dust. However, this brings smoke hazards to local residents and anyone downwind of the fire.

4. Where trees are young, under four feet tall, they can be mown with a tractor based flail mower ("brush-hog") or clipped at ground level. Mowing is particularly useful if young trees are mixed with Scots broom, as both can be mown at the same time.



5. Stump grinding will ensure that future mowing can be done safely in the formerly timbered areas. As with other equipment, it's important that each grinder be cleaned before coming to this site to reduce introduction of new noxious species.

6. Isolated low shrubs of native plant species may be retained in the foredune for bird and small mammal habitat.

### **Maintain Grassland Option—Management Notes**

Dry season fires are an all too common hazard for dune residents. Important guidelines for improving fire safety are to remove all woody plants within fifty feet of structures, creating a fire safety zone, and to mow that fire safety zone each year at the start of the dry season.

This reduces available fuel for fires moving east from open land to buildings, and improves the odds that fire protection teams can arrive in time to keep structures from burning. Mowing a summer fire-safety buffer—fifty feet from structures to grasslands—should be done as the dry season starts and grasses slow their growth.

Outside the fire safety buffer, mow regularly to reduce Scots broom and other woody species. Timing for this mowing is important. Ground-nesting birds and mammals have active nests and young during spring and summer. This area should be mown only in fall or winter—October to early March.

There are two approaches:

1. Mow all of the foredune grassland areas once every three years. The areas to mow are where Scots broom, or other woody species grow, including shore pine. Leave the foredune alone for two years; then mow again. There is no need to mow areas that have only wildflowers and grasses.
2. Mow one third of this foredune grassland area every year, leaving two thirds alone each year. As with #1, mow only those areas with woody species.

Both approaches allow perennial wildflowers to grow and flower in the grassland, and give resident birds and animals refuge areas in two out of three years during spring and summer. The areas to mow are those with numerous tree seedlings, blackberry thickets and Scots broom patches. There may be other areas (including those with Canada and bull thistle) that should also be mown regularly to make other control methods more effective. Work with Clatsop Soil and Water Conservation District on optimal control methods for these species, patch by patch.

### **Noxious and Problematic Plants**

Several state-listed noxious species, and problematic plant species are already present in the foredune area. Noxious woody species include Japanese knotweed, Scots broom and others. Herbaceous species include tansy ragwort, Canada thistle, bull thistle, and

blackberries. Most species are best mown or cut down in winter, and treated with herbicides in summer. Work with Clatsop Soil and Water Conservation District on optimal control methods for this site.

Knotweeds are capable of completely excluding native species, including trees, and form dense thickets that spread outward in all directions each year. Gearhart should work with the conservation district to remove this species from the foredune, and monitor this area to keep it from returning.

Scots broom grows in dense thickets, shading out most plants. A typical broom thicket has mosses and a few grasses growing on the ground. It is a fire hazard. Broom seeds live fifty to seventy years, so keeping this woody shrub down is a long-term project. Seeds are explosively thrown from pods in mid to late summer, carried off and cached by mice and voles in underground stores, and also in buildings. Minimizing disturbance to the upper soil layer helps reduce seed germination once the mature shrubs are gone.

Tansy ragwort (*Jacobaea vulgare*) is toxic to livestock and wild grazing species, including deer and elk. There are insect biological controls being used in Oregon, but these are not always effective along the immediate coast. In the foredune area, the most effective control method is to pull plants when in flower and before seed set, and dispose of them in municipal waste. They should not be composted. Drying stalks with ripening ovaries can still mature seeds. Like other daisies, ragwort seeds have plumes that loft in the air to disperse them.

Canada thistle (*Cirsium arvense*) and bull thistle (*Cirsium vulgare*) are stout perennial thistles that grow in dense thickets, and like ragwort, have plumed seeds spread through the air. Native species that grow in the dunes are edible or Indian thistle (*Cirsium edule*) and short-styled thistle (*Cirsium brevistylum*). The latter two species grow as single stems or very small clumps, and are not management problems, and all species are easily identified when flowering. The native thistles should be left to live in the dunes. Canada thistle and bull thistle will become more and more dominant if not removed. Work with the local conservation district to find effective control methods for these species.

Atlantic ivy (*Hedera hibernica*), the larger-leaved cousin to English ivy (*Hedera helix*), is a pest of woodlands adjacent to urban areas. Ivy vines circle tree trunks, slowly killing trees through girdling. Mature vines occupy the upper tree canopy, shading the tree's leaves, and flowering. Fruits are edible to birds, which spread seeds widely. Forest Park, Portland, has a No Ivy League that has been clearing canopies and digging out roots for many years. Ivy is salt tolerant, and grows on seacliffs, shrubs and trees along the dunes in many places on the Pacific Northwest coast. I did not see ivy during visits to the Gearhart foredunes, but it is important to keep watch for it, and remove it when it appears.

Introduced blackberries in the dunes include Himalayan blackberry (*Rubus armeniacus*) and cut-leaf blackberry (*Rubus laciniatus*). Both grow in dense thickets of arching vines, heavily armed with spines, and produce edible berries that birds, deer, coyotes and other

animals eat. Seeds live a few years in the soil, so these species may reappear years after parent plants were removed. Mowing followed by herbicides on sprouting crowns is an effective control method. Past years' woody vines may take several years to decompose, so thickets can be important fire fuel locations. Many small animals use thickets for cover, and elk and deer browse the young leaves. Birds use the thickets in winter for shelter. Himalayan blackberry is a listed noxious species.

**Problematic Species (not yet listed as noxious by the state):**

1. Cotoneasters (*Cotoneaster* sp.) are a large genus of ornamental woody shrubs with small showy flowers and edible fruits. Birds eat the fruits and spread the seeds. Several species have naturalized in this area, and some look very like evergreen huckleberry when not in flower. They can grow into dense thickets, and like Scots broom, will exclude other plant species. No cotoneasters have achieved noxious weed status in Oregon yet, though several species are approaching a formal listing. Hand pulling small plants, and use of herbicides on stumps and larger plants is effective. Seeds may live a few years in the soil, so complete removal may take some time. There are several patches of cotoneaster in the foredunes.

2. English holly (*Ilex aquilifolium*) is an evergreen tree with fruits that birds eat and disperse. The leaves have sharp spines; leaves on young plants have more spines than on older plants. Holly stumps re-sprout when cut down, so herbicides or stump pulling are used to remove them. There are several holly trees in the foredunes.

3. Cherry Laurel (*Prunus lauroceras*) is an evergreen tree with fruits that birds eat and disperse. Deer and elk browse the leaves. Trees grow forty feet wide and high. This species is a popular hedge material due to its fast growth, but because it has edible fruits, it spreads easily into open areas, where it quickly forms dense clumps. I removed a seedling during my site visit in August 2016.

It is likely that other problematic species are now living in the foredune area, and should be included in long-term management of this area.

**Improving Native Species Diversity**

Removal of listed noxious plant species and regular mowing to reduce woody introduced shrubs will maintain the foredune as grassland. To promote other native prairie species, consider spreading seeds of flowering species already present in the foredune area, including yarrow (*Achillea millefolium*), pearly everlasting (*Anaphalis margaritacea*), and seaside tansy (*Tanacetum camphoratum*). See Appendix Three for a list of native species to consider for dune prairie planting.

The restoration of a low open highly diverse prairie community is a time consuming undertaking. First, the beachgrasses and other patch-forming introduced grasses will need to be removed. At this time, the recommendation is to control the woody species, and

promote tall, vigorous wildflowers that can compete with European beachgrass, mentioned above.

**Timing of Control Methods to Protect Wildlife**

Wildlife, including insects, mammals and birds that live in the foredune area, reproduce each spring and raise young during the summer. This means that control activities should take place outside this period, in fall and winter.

**Equipment and Vectoring in of new Plant Species**

See pamphlet from NOAA on cleaning vehicles.

## **Appendix One: Common Plant Species of the Gearhart Foredune**

List compiled from site visit, August 2016; this is not a complete species list for the foredune area.

Introduced species (\*)

### **Grasses, rushes, sedges**

*Aira caryophylla*, silky hair grass (\*)  
*Aira praecox*, common hair grass (\*)  
*Ammophila arenaria*, European beachgrass (\*)  
*Ammophila breviligulata*, American beachgrass (\*)  
*Anthoxanthum odoratum*, sweet vernal grass (\*)  
*Carex brevicaulis*, short-stemmed sedge  
*Carex macrocephala*, big-headed sedge  
*Carex obnupta*, slough sedge  
*Carex pansa*, sand-dune sedge  
*Dactylis glomerata*, orchard grass (\*)  
*Festuca rubra*, red fescue  
*Holcus mollis*, creeping velvet grass (\*)  
*Juncus balticus*, Baltic rush  
*Juncus falcatus*, sickle-leaf rush  
*Juncus bufonius*, toad rush  
*Juncus leseuerii*, salt rush  
*Leymus mollis*, American dune grass

### **Woody Plants (trees and shrubs)**

*Alnus rubra*, red alder  
*Arctostaphylos uva-ursi*, kinnikinnick  
*Crataegus monogyna*, European hawthorn (\*)  
*Cytisus scoparius*, Scots broom (\*)  
*Fallopia japonica*, Japanese knotweed (\*)  
*Hedera helix*, English ivy (\*)  
*Hedera hibernica*, Atlantic ivy (\*)  
*Ilex aquifolium*, English holly (\*)  
*Lonicera involucrata*, black twinberry  
*Malus fusca*, Pacific crabapple  
*Malus x domestica*, apple (\*)  
*Myrica californica*, Pacific wax myrtle  
*Picea sitchensis*, Sitka spruce  
*Prunus lauroceras*, cherry laurel (\*)  
*Pinus contorta* var. *contorta*, shore pine  
*Rubus armeniacus*, Himalayan blackberry (\*)  
*Rubus laciniatus*, cut-leaf blackberry (\*)  
*Rubus spectabilis*, salmonberry  
*Rubus ursinus*, Pacific blackberry  
*Sambucus racemosa*, red elderberry

*Thuja plicata*, western red cedar  
*Vaccinium ovatum*, evergreen huckleberry

**Perennials (herbaceous, including wildflowers)**

*Abronia latifolia*, yellow sand-verbena  
*Achillea millefolium*, yarrow  
*Anaphalis margaritacea*, pearly everlasting  
*Armeria maritima*, sea thrift  
*Cardionema ramosissima*, sand bur  
*Fragaria chiloensis*, beach strawberry  
*Hypochaeris radicata*, hairy cat's-ear (\*)  
*Lathyrus japonicus*, beach pea  
*Lupinus littoralis*, beach lupine  
*Maianthemum dilatatum*, Pacific lily of the valley [woodland-forest species]  
*Polygonum paronychia*, black knotweed  
*Solidago canadensis*, Canada goldenrod  
*Solidago simplex* var. *spathulata*, coast goldenrod  
*Sonchus* species, sow-thistle (\*)  
*Spiranthes romanzoffiana*, ladies twisted stalk  
*Symphoricarpos subspicatus*, Douglas aster  
*Tanacetum camphoratum*, dune tansy  
*Vicia gigantea*, giant vetch

## **Appendix Two: Noxious and Nuisance plants of the Gearhart Foredune**

Contact Clatsop Soil and Water District about control methods; some may require herbicides in addition to or instead of mowing. This is a preliminary list. Other noxious plant species may be present in the foredune area.

### **Noxious Plants**

*Cirsium arvense*, Canada thistle

*Cirsium vulgare*, bull thistle

*Cytisus scoparius*, Scots broom

*Fallopia japonica*, Japanese knotweed

*Hedera hibernica*, Atlantic ivy

*Jacobaea vulgare*, tansy ragwort [formerly *Senecio jacobaea*]

*Rubus armeniacus*, Himalayan blackberry

*Rubus laciniatus*, cut-leaf blackberry is not listed as a noxious weed, but has the same behavior as *R. armeniacus*

### **Nuisance Plants**

*Cotoneaster* species

*Ilex aquifolium*, English holly

*Prunus lauroceras*, cherry laurel

### **Appendix Three: Perennials native to coastal dune prairie, Gearhart and Clatsop Plains**

Use this list as a reference for planting to increase diversity of herbaceous species.

√ indicates species is present in Gearhart foredune area.

#### Grasses, rushes and sedges

*Agrostis exarata*, spike bentgrass  
*Agrostis scabra*, rough bentgrass  
*Calamagrostis nutkensis*, Pacific reedgrass  
*Carex brevicaulis*, short-stemmed sedge √  
*Carex pansa*, sand-dune sedge √  
*Danthonia californica*, California oatgrass  
*Festuca rubra*, red fescue √  
*Leymus mollis*, American dunegrass √  
*Poa confinis*, dune bluegrass  
*Poa macrantha*, seashore bluegrass

#### Perennials

*Achillea millefolium*, yarrow √  
*Allium cernuum*, nodding onion  
*Anaphalis margaritacea*, pearly everlasting √  
*Angelica hendersonii*, sea-coast angelica  
*Agoseris apargioides*, seaside agoseris  
*Armeria maritima*, sea thrift  
*Artemisia campestris*, silky field wormwood  
*Artemisia suksdorfii*, coast wormwood  
*Aster chilensis*, California aster  
*Cardionema ramosissima*, sand-bur √  
*Castilleja affinis*,  
*Cerastium arvense*, field chickweed  
*Cirsium brevistylum*, short-styled thistle  
*Cirsium edule*, edible thistle  
*Erigeron glaucus*, beach fleabane, or beach daisy  
*Fragaria chiloensis*, beach strawberry √  
*Fritillaria affinis*, chocolate lily  
*Lathyrus japonica*, beach pea √  
*Lotus formosissimus*, seaside birds-foot trefoil  
*Piperia elegans*, coast piperia  
*Polygonum paronychia*, black knotweed √  
*Ranunculus occidentalis*, western buttercup  
*Solidago canadensis*, Canada goldenrod √  
*Solidago simplex* var. *spathulata*, coast goldenrod √  
*Spiranthes romanzoffiana*, hooded lady's-tresses √  
*Tanacetum camphoratum*, dune tansy √  
*Trifolium wormskjoldii*, coast or springbank clover  
*Triteleia coronaria*, harvest brodiaea  
*Triteleia hyacinthina*, white brodiaea  
*Vicia americana*, American vetch  
*Vicia gigantea*, giant vetch √