

# REPORT

ON

## WATER USE

- DOMESTIC WATER
- IRRIGATION &  
FIRE SUPPRESSION WATER
- WATER CONSERVATION PLAN

AT

CROOK POINT RESORT  
PISTOL RIVER, CURRY COUNTY  
OREGON

REPORT

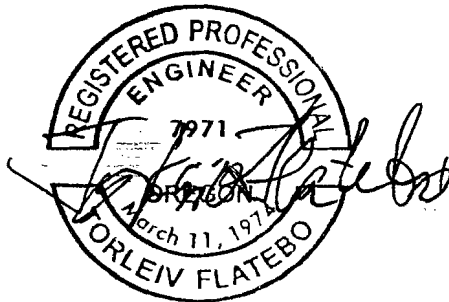
on

WATER USE

at

CROOK POINT RESORT

Pistol River, Oregon



EXPIRES: 12/31/11

TFE, Inc., Civil Engineers  
P O Box 100, Ophir 97464  
541-247-7769

Date: May 24, 2010

## GENERAL:

This is a preliminary report based on the information available on the development of the resort. Water use data has been obtained from other similar golf resorts in this area. We have worked very close with the government agencies involved in setting the rules, issuing permits, local and state fire officials, and water right department.

## IRRIGATION & FIRE SUPPRESSION WATER:

### Water Need:

Irrigation of the golf course including TeeÆs and greens, usually starts in late May and ends in middle of October. A total of 5- month season depending on the weather. The highest use are in July, August, and September.

We obtained water use from Bandon Dunes, Bandon Crossing, Cedar Bend, and Salmon Run and other courses. The average use per day in the hot months calculated out to 350,000 gpd.

### Available Water:

Burnt Hill Creek is located in the Southern part of the resort property. The State Water Resources Dept. made a survey of the monthly flow in the Creek. A tabulation of monthly streamflows are shown on Exhibit 1. The lowest flow is 0.87 cfs (390 gpm) in October.

An other stream in the middle of the resort property is yielding estimated 25 gpm.

The creek is called Old Draw Creek.

The Crook Point Resort filed for Water Right on both of these two locations with priority date 3/2/2010. There are no other water rights on these creeks. Exhibit 2

These water rights will yield  $(390 + 25) \times 1440 = 597,600$  gallons per day, which is 247,600 gpd more than needed for irrigation.

## INTAKE, PUMPLINES, STORAGE POND:

A intake structure will be installed just below TH 101. It will be a concrete manhole with two submersible pumps. 2 or 3 perforated collection pipes will lead out from the wetwell. Pumps will be 7-15 hp with a 6" discharge pipe leading to a 3,000,000- gallon storage pond located close to center of the property and the course.

An intake structure and pumphouse will be located at the storage pond and large pumps will send the water to the irrigation system. These pumps will pump 2500 gpm at 120 psi for about four hour of irrigating. There will be a jockey pump maintaining pressure in the pipes 24 hours. If pressure is dropping, the larger pumps will start up.

## FIRE SUPPRESSION WATER:

The water for the Fire Suppression will be supplied by the Main Irrigation Supply system. Smaller 6" branch pipe lines will be tapped into the irrigation pipes and provide the water to the hydrant locations.

The hydrants have been located as required by code (page 21 map). Water for the fire sprinklers is also provided by the irrigation system. Not all buildings will have a sprinkler systems.

The main irrigation water system will be charged by three large pumps and a smaller Jockey pump which keep the pressure up 24 hours 7 days a week. A small drop in the pressure will activate the bigger pumps.

This setup is common at golf resorts and Bandon Dunes have the same arrangement.

The Fire Suppression Plan has been discussed at a meeting with Deputy State Fire Marshall Charles Chase - letter Exhibit 3.

We have also met with representatives from Coos-Curry Forest Assn., Pistol River Fire District which has mutual assistance agreements with Brookings and Gold Beach Fire Dept.

# Water Availability Analysis

BURNT HILL CR > PACIFIC OCEAN - AT MOUTH  
SOUTH COAST BASIN

Water Availability as of 7/13/2009

Watershed ID #: 31731202

Date: 7/13/2009

Exceedance Level: 80%

Time: 1:49 PM

## Water Availability

Select any Watershed for Details

Nesting Order	Watershed ID #	Stream Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sto
1	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

## Limiting Watersheds

Monthly Streamflows in Cubic Feet per Second  
Storage at 50% Exceedance in Acre-Feet

Month	Limiting Watershed ID #	Stream Name	Water Available?	Net Water Available
JAN	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	7.75
FEB	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	10.10
MAR	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	9.31
APR	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	4.94
MAY	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	2.47
JUN	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	1.60
JUL	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	1.38
AUG	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	1.20
SEP	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	0.98
OCT	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	0.57
NOV	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	2.53
DEC	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	7.65
STO	31731202	BURNT HILL CR > PACIFIC OCEAN - AT MOUTH	Yes	6,720.00

## Detailed Reports for Watershed ID #31731202

BURNT HILL CR > PACIFIC OCEAN - AT MOUTH  
SOUTH COAST BASIN

Water Availability as of 7/13/2009

Watershed ID #: 31731202

Date: 7/13/2009

Exceedance Level: 80%

Time: 1:49 PM

*1 cfs = 448 gpm*

*Exhibit 1*

*A*

<b>Water Right Information Query Results</b>	
<b>Contact Information</b>	<b>Documents</b> <small>View all scanned documents</small>
<b>▼ Current contact information</b> APPLICANT: ▶ CROOK FAMILY LLC 94727 S BANK RD PISTOL RIVER BROOKINGS, OR 97415	<b>▶ Application: R 87586</b> ▶ Unable to view right in new web mapping because this water right is not currently mapped. ▶ <a href="#">View Places of Use from Water Rights in the Same Area</a>
<b>Water Right Information</b>	
Status: Non-Cancelled County: Curry Authority: HB2376 File Folder Location: Salem	
<b>Point(s) of Diversion</b>	
▶ <b>POD 1 - BURNT HILL CREEK &gt; PACIFIC OCEAN</b> ▶ <b>POD 1 - UNNAMED STREAM &gt; PACIFIC OCEAN</b>	
<b>Place(s) of Use</b> <small>Add TRS grouping</small>	
▶ <b>Use - MULTIPLE PURPOSE (Primary); Priority Date: 3/2/2010</b>	
<b>Water Right Genealogy</b>	
<b>No genealogy records available for this water right, try the family link below instead.</b>	

[View Water Rights in same Family](#)

[Help understanding and working with the Water Rights Information System](#)

[Report Errors with Water Right Data](#)

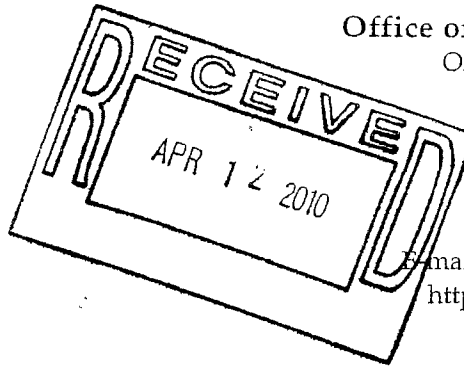
[Return to WRIS Query](#)

Exhibit 2



# Oregon

Theodore R. Kulongoski, Governor



Office of Homeland Security

Office of State Fire Marshal

4760 Portland Road NE

Salem, OR 97305-1760

(503) 378-3473

FAX (503) 373-1825

TTY (503) 390-4661

E-mail: [oregon.sfm@state.or.us](mailto:oregon.sfm@state.or.us)

<http://www.sfm.state.or.us/>

*Quality Service First*

Curry County Department of Public Services  
P.O. B. 746  
94235 Moore Street  
Gold Beach, Oregon 97444  
Attn: Hank Eckhardt

Dear Hank,

In regard to the Crook Point Resort, Mr. Tor Flatboe has shown me preliminary concept drawings showing access / egress and water supply for fire suppression. The proposal appears to be in compliance with applicable codes in regard to access/egress and water supply.

There are a number of questions unanswered until the project is officially started such as whether a particular building may or may not require an automatic fire sprinkler system for example.

I explained to Mr. Flatboe that until his process goes through Curry County it becomes problematic for me to give advice and could cause inadvertent conflicts.

From the concept drawings I saw on the project, it appears that it will have all the required fire safety features required by code.

I am looking forward to working together on this project. Should you require any assistance, please do not hesitate to contact this office.

Respectfully,

Charles Chase, CFI  
Deputy State Fire Marshal

Exhibit 3

Pistol River  
Fire District

P.O. Box 6100  
Pistol River, OR 97444

1/29/2010

TO: Planning Director David Pratt, Curry County

RE: Proposed Crook Point Golf Resort

FROM: Ron Hanson, Fire Chief, Pistol River Fire District

The proposed Crook Point Golf Resort properties owned by the Crook family are within the boundaries of the Pistol River Fire District. Fire District concerns for this proposed project that will need to be addressed are access and water supply.

Sincerely,



Ron Hanson  
Fire Chief  
Pistol River Fire District  
541-247-6765

Board of Directors:

Gary Sorensen-Chairman, John Adams-Vice Chairman, Mike Wells-Secretary  
Treasurer, John Kearney, Neil Walker, Ron Hanson-Fire Chief, Dana Hanson-Clerk

Exhibit 4

**CROOK FAMILY LLC**  
**TABULATION of DOMESTIC WATER DEMAND &**  
**SEWAGE FLOW at BUILD OUT (2018)**  
**CROOK POINT RESORT**

NO:	PROJECT UNITS:	#of UNITS:	gpd per UNIT:	gpd MISC. USES:	LS MISC. FLOW:	TOTAL FLOW:	NOTES:
1	Lounge LODGE, Restaurant	150 Seating 30 Rooms	50 25	7500 750		10,000	
2	SPA			1500		1,500	Pool, Showers, Toilets
3	Pub & Cafe GOLF LODGE	100 Seats 40 Rooms	50 25	5000 1000		6,000	
4	MAINTENANCE BLDG.	Laundry	LS	2000 300		2,300	
5	CONFERENCE ROOM	50 Seats	25			1,250	
6	CLUBHOUSE		LS	500		500	
7	KIDS GOLF SHOP		LS	500		500	
8	LODGING, CABINS						
Lodge	10 Cabins/4 Bedrooms	40	50			2,000	
	2 Cabins/4 Bedrooms	12	50			600	
	9 Cabins/2 Bedrooms	18	50			1,500	
	4 Houses/3 Bedrooms	4	375			1,500	
	Recreation Bldg.		LS			500	
Staff	5 Units/1 Bedroom *	5	150			750	
	10 Units/2 Bedrooms	10	300			3,000	
Equestrian	8 Units/2 Bedrooms	8	300			2,400	
	2 Units/4 Bedrooms	8	300			2,400	
	80x80 Arena	1	LS			1,000	
Owners Lots	5 houses/3 Bedrooms	5	375			2,000	

**TOTAL**                      **39,700 Gallons**

*Exhibit 5*

## Waste Water Discharge Column 1

Type of Establishment	Gallons Per Day	Galle Minimum Per Facility Per Day
Airports	5 (per passenger)	150
Bathhouses and swimming pools	10 (per person)	300
Campers (4 persons per campsite, where applicable)		
Campingground with central comfort stations	15 (per person)	700
With flush toilets, no showers	25 (per person)	500
Construction camps (semi-permanent)	50 (per person)	1000
Day camps (no meals served)	15 (per person)	300
Resort camps (night and day) with limited plumbing	50 (per person)	1000
Luxury camps	100 (per person)	2000
Churches	5 (per seat)	150
Country clubs	100 (per resident member)	2000
Country clubs	25 (per non-resident member present)	—
Dwellings:		
Boarding houses	150 (per bedroom)	600
Additional for non-residential boarders	10 (per person)	—
Rooming houses	80 (per person)	500
Condominiums, multiple family dwellings (including apartments)	300 (per unit)	900
Single family dwellings	300 (not exceeding 2 bedrooms)	450*
With more than 2 bedrooms	75 (for third & each succeeding bedroom)	450
Factories (exclusive of industrial wastes, with shower facilities)	35 (per person per shift)	300
Factories (exclusive of industrial wastes, without shower facilities)	15 (per person per shift)	150
Hospitals	250 (per bed space)	2500
Hotels with private baths	120 (per room)	800
Hotels without private baths	100 (per room)	500
Institutions other than hospitals	125 (per bed space)	1250
Laundries, self-service	300 (per machine)	2500
Mobile home parks	250 (per space)	750
Motels (with bath, toilet, and kitchen wastes)	100 (per bedroom)	500
Motels (without kitchens)	80 (per bedroom)	400
Picnic Parks (toilet wastes only)	5 (per picnicer)	150
Picnic Parks (with bathhouses, showers and flush toilets)	10 (per picnicer)	300
Restaurants	40 (per seat)	800
Restaurants (single-service)	2 (per customer)	100
Restaurants (with bars and/or lounges)	50 (per seat)	1000
Schools:		
Boarding	100 (per person)	3000
Day, without gyms, cafeterias or showers	15 (per person)	450
Day, with gyms, cafeterias and showers	25 (per person)	750
Day, with cafeteria, but without gyms or showers	20 (per person)	600
Service Stations	10 (per vehicle served)	500
Swimming pools and bathhouses	10 (per person)	300
Theaters:		
Movie	5 (per seat)	100
Drive-In	20 (per car space)	1000
Travel trailer parks (without individual water and sewer hookups)	50 (per space)	300
Travel trailer parks (with individual water and sewer hookups)	100 (per space)	500
Workshops		
Construction (as semi-permanent camps)	50 (per person)	1000
Day, at schools and offices	15 (per shift)	150

\* Except as otherwise provided in these rules.

### Well Log Query Results

Township: 39 S, Range: 14 W, Sections: 5

Well Log	T-R-S/ Q-Q-Q	Taxlot	Street of Well	Owner	Company	Special Standards	Well Type	First Water	Completed Depth	Static Water Level	Yield	Completed Date	Received Date	Bonded Constructor	Startcard	Well Id #	New	Abandon	Deepen	Alteration	Conversion	Domestic	Irrigation	Community	Livestock	Industrial
CURR 93	39 00S-14 00W-5				BURNT HILL SALMON RANCH LTD 2300 SW 1ST AVE PORTLAND OR 97201		W	82.00	120.00	63.0	20.0	04/23/1979	05/03/1979	STRASSER, ROBERT L R J STRASSER DRILLING CO.			✓				✓					
CURR 374	39 00S-14 00W-5			WILKERSON, DOUG	BURNT HILL SALMON RANCH (C/O) OR		W	80.00	289.00	70.0	10.0	06/24/1984	07/10/1984	BARRINGTON, RON			✓									
CURR 375	39 00S-14 00W-5				BURNT HILL SALMON RANCH 23154 US HWY 101 BROOKINGS OR 97415		W	35.00	105.00	35.0	15.0	11/06/1980	03/09/1981	BARRINGTON, TOM BARRINGTON WELL DRILLING			✓				✓					

[Download Data](#)  
[Return to Well Log Query](#)

*Exhibit 7*

*10 pages*





NOTICE TO WATER WELL CONTRACTOR

The original and first copy of this report are to be filed with the

RECEIVED

WATER WELL REPORT

CURRY 098

STATE ENGINEER, SALEM, OREGON 97310

MAY 31 1979 STATE OF OREGON

State Well No. 395/14W-5

within 30 days from the date of well completion.

WATER RESOURCES DEPT (Do not write above this line)

State Permit No.

SALEM, OREGON

(1) OWNER:

Name BURNT HILL SALMON PACK LTD Address 2300 S.W. 15th AVE PORTLAND, ORE

(10) LOCATION OF WELL:

County CURRY Driller's well number 5551 Section 5 T. 39S R. 14W W.M. Bearing and distance from section or subdivision corner

(2) TYPE OF WORK (check):

New Well [X] Deepening [ ] Reconditioning [ ] Abandon [ ]

If abandonment, describe material and procedure in Mem 12.

(3) TYPE OF WELL:

Rotary [X] Cable [ ] Dug [ ] Driven [ ] Jetted [ ] Bored [ ]

(4) PROPOSED USE (check):

Domestic [X] Industrial [ ] Municipal [ ] Irrigation [ ] Test Well [ ] Other [ ]

CASING INSTALLED:

Threaded [ ] Welded [X] 6" Diam. from +2 ft. to 120 ft. Gage 250

PERFORATIONS:

Perforated? [X] Yes [ ] No. Type of perforator used TORCH Size of perforations 1/8 in. by 6 in. 160 perforations from 94 ft. to 114 ft.

(7) SCREENS:

Well screen installed? [ ] Yes [X] No Manufacturer's Name Type Model No. Diam. Slot size Set from ft. to ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level. Was a pump test made? [ ] Yes [X] No. Yield: BLEW 20 GPM WITH AIR. Artesian flow g.p.m. Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Well seal-Material used CEMENT GROUT Well sealed from land surface to 25 ft. Diameter of well bore to bottom of seal 10 in. Number of sacks of cement used in well seal 10 sacks. Brand name of bentonite. Number of pounds of bentonite per 100 gallons of water. Was a drive shoe used? [ ] Yes [X] No. Did any strata contain unusable water? [ ] Yes [X] No. Type of water? depth of strata. Method of sealing strata off. Was well gravel packed? [ ] Yes [X] No. Gravel placed from ft. to ft.

(11) WATER LEVEL: Completed well.

Depth at which water was first found 82 ft. Static level 63 ft. below land surface. Date 4/23/79 Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing ft. Depth drilled 200 ft. Depth of completed well 170 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated.

Table with columns: MATERIAL, From, To, SWL. Rows include: FILL (0-2), BROWN CLAY (2-20), GREY SANDSTONE (20-82), CRACKED SANDSTONE (82-120), GREY SHALE (120-200).

Work started APR 18 1979 Completed APR 23 1979 Date well drilling machine moved off of well APR 24 1979

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief. [Signed] David R. Schmidt Date MAY 1 1979 Drilling Machine Operator's License No. 564

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. Name R. STRASSER DRILLING CO Address 2100 SE SUNSET LANE PORTLAND ORE [Signed] Bob F. Shattuck Date MAY 1 1979 Contractor's License No. 10



# Oregon

Theodore R. Kulongoski, Governor

Department of Human Services  
Drinking Water Program  
2860 State Street  
Medford, OR 97504  
(541) 776-6229 ext. 284  
Fax (541) 776-6013

April 19, 2010

Tor Flatebo, P.E.  
PO Box 100  
Ophir, OR 97464

RE: Proposed Wells for Crook Point Resort

Dear Tor:

We have received copies of the well reports for three wells that are proposed to be used as a public water supply for the **Crook Point Resort in Curry County**. These well reports are identified as CURR 98, CURR 374, and CURR 375.

We have determined that the construction of these wells is adequate, and preliminary approval is granted for their use in a public water system. Final approval can be granted when test results for arsenic, nitrate, and coliform bacteria are reviewed and approved.

Thank you for submitting this information, and please contact me if you have any questions.

Sincerely,

Scott G. Curry, P.E.  
Regional Engineer  
Drinking Water Program

cc: Mike Meszaros, Curry Co. Environmental Health

## WATER CONSERVATION & PROTECTION OF THE NATURAL LANDSCAPE

On site lakes and pond will store and recycle the runoff from the golf course and the buildings and sites, parking and roads, and other disturbed areas. The area outside the disturbed areas will be left natural with the existing vegetation undisturbed. Landscape, golf course establishment and irrigation the golf course, will follow low impact development and xeriscaping principles using computerized sprinkler system. Irrigation water needs, for other than the golf course, shall be kept to a minimum using native, drought tolerant vegetation and drip irrigation systems. The development will minimize lawn areas and retain an authentic, natural landscape.

The biggest problem is runoff and control of runoff. If rainwater can't soak into the ground where it falls, it will run downhill, picking up pollutants along the way. Natural filtration of water through soil is the simplest way to control these pollutants. By capturing stormwater and allowing it to seep into ground we can recharge the groundwater with clean water. The best way to slow down rainwater and let it seep into the ground is to use settlement / retention ponds, bioswales, and porous pavements.

Bioswales are storm water runoff conveyance systems. The bottoms of bioswales tend to be sloped and relative deep, covered with rock and amended soil. Bioswales improve water quality by enhancing infiltration of first flush and filtering the large storm flows. Settlement ponds with baffles and controlled outlet flow will let silt and dirt settle out. Porous pavement will slow down runoff and let water infiltrate into the ground.

In the Lodge District, runoff from roads and roofdrains will be collected in a storm sewer system. In the larger parking lots, storm water will first run thru large bioswales and over porous pavement. The water will run into a large settlement pond with a slow and controlled discharge outlet. From the settlement pond, the water will run into the irrigation pond and reused or discharged into a creek in the winter.

A strong effort will be made to reduce water usage in the various building. Fixtures, washing machines, shower heads, icemakers & coolers will be selected considering the water usage. A water saving campaign will be part of be part of the operation of lodges and cabins.

All the buildings will be new construction with latest in piping and plumbing.

SANITATION & WASTEWATER:

Sanitation:

The resort garbage will be handled by Curry Transfer & Recycling (County's contract garbage collectors).

Wastewater:

Wastewater will be collected by a system of sewers and transported to the treatment plant. Sewage will be treated by an Orenco plant and disposed of in drainfields at sites on the resort property. Preliminary plans, for the plant with a capacity of 40,000 gpd and drainfield sites, have been reviewed with DEQ. -letter Exhibit 9.

This Report has been prepared  
by me and I am a Registered Professional  
Civil Engineer in State of Oregon

  
Torleiv Flatebo  
Torleiv Flatebo P.E. C7971



# Oregon

Theodore R. Kulongoski, Governor

## Department of Environmental Quality

Western Region Coos Bay Office

381 N Second Street

Coos Bay, OR 97420

(541) 269-2721

FAX (541) 269-7984

OTRS 1-800-735-2900

LeRoy Blodgett  
PO Box 7618  
Brookings, OR 97415

April 7, 2010

RE: WQ-Curry County  
Crook Point Resort  
Eagle Two Development

Mr. Blodgett,

I have reviewed the preliminary site plan for the Crook Point Resort south of Gold Beach, Oregon. I have also visited the site to gain additional information.

Based on the information gathered I believe the project should move forward to obtain appropriate Curry County Planning Department approval. Once that is obtained application will need to be submitted to the Department of Environmental Quality (DEQ) for the necessary site inspection which will include evaluation of test holes and general layout of the proposed onsite wastewater treatment system.

Based on approval of the site evaluation, the applicant will then be able to submit a Water Pollution Control Facilities (WPCF) permit application for the permit to construct the approved system for wastewater treatment.

If you have any questions please contact me at (541) 269-2721, ext. 225 for assistance.

Sincerely,

Delaine

Onsite Wastewater Specialist

C: Tor Flatebo

Exhibit 9