

**Water Right Conditions
Tracking Slip**

Groundwater/Hydrology Section

FILE ## G-16925

ROUTED TO: Water Rights

TOWNSHIP/

RANGE-SECTION: 2N/10E-23 6c

CONDITIONS ATTACHED? []yes []no

REMARKS OR FURTHER INSTRUCTIONS:

Reviewer: Mike Zwart

PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO: Water Rights Section Date November 5, 2007

FROM: Ground Water/Hydrology Section Michael Zwart
Reviewer's Name

SUBJECT: Application G- 16925 Supersedes review of N/A
Date of Review(s)

PUBLIC INTEREST PRESUMPTION; GROUNDWATER

OAR 690-310-130 (1) *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525. Department staff review ground water applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. This review is based upon available information and agency policies in place at the time of evaluation.*

A. GENERAL INFORMATION: Applicant's Name: Odell Sanitary District County: Hood River

- A1. Applicant(s) seek(s) 0.3342 cfs from one well(s) in the Hood Basin,
 _____ subbasin Quad Map: Hood River
- A2. Proposed use: Ind./Commercial Seasonality: May 1 to 31 and November 1 to 30
- A3. Well and aquifer data (attach and number logs for existing wells; mark proposed wells as such under logid):

Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	HOOD 50547	1	CRB	0.3342	2N/10E-23 SW-NW	283' N, 220' E fr W ¼ cor S 23
2						
3						
4						
5						

* Alluvium, CRB, Bedrock

Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	650	180	39	1/24/06	589	0-163	0-175	0-451?	308-358?	100	45.4	P

Use data from application for proposed wells.

A4. **Comments: Period of use on application does not agree with that on form Q, but comments in application point to proposed use only in May and November. Well was deepened (HOOD 50548), but it is not clear if the original liner remains installed to the original depth or if it was removed.**

A5. **Provisions of the Hood** _____ Basin rules relative to the development, classification and/or management of ground water hydraulically connected to surface water are, or are not, activated by this application. (Not all basin rules contain such provisions.)
 Comments: _____

A6. Well(s) # _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.
 Name of administrative area: _____
 Comments: _____

C. GROUND WATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

C1. 690-09-040 (1): Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Basalt of the Columbia River Basalt Group	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer confinement evaluation: Basalt aquifers are typically confined in this area.

C2. 690-09-040 (2) (3): Evaluation of distance to, and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ¼ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
1	1	Odell Creek	611	645	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Hood River	611	380	4300	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Basis for aquifer hydraulic connection evaluation: Hood River is likely incised into the uppermost water-bearing zone penetrated by this well. The nearby reach of Odell Creek is not incised to the water-bearing zone.

Water Availability Basin the well(s) are located within: ODELL CR > HOOD R - AT MOUTH (30410502); HOOD R > COLUMBIA R - AT RM 0.75 (30410575).

C3a. 690-09-040 (4): Evaluation of stream impacts for each well that has been determined or assumed to be hydraulically connected and less than 1 mile from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% natural flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < ¼ mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
1	2	<input type="checkbox"/>	<input type="checkbox"/>	30410575	100	<input type="checkbox"/>	591	<input type="checkbox"/>	<25%	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>		Nov.	<input type="checkbox"/>	Nov.	<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells.** Otherwise same evaluation and limitations apply as in C3a above.

	SW #	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Comments: The proposed use here will actually augment streamflows when needed to comply with NPDES permit in May and November.

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)													
(E) = (A / B) x 100		%	%	%	%	%	%	%	%	%	%	%	%

(A) = total interference as CFS; (B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed. as CFS; (D) = highlight the checkmark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage.

Basis for impact evaluation: _____

C4b. **690-09-040 (5) (b) The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.**

- C5. **If properly conditioned**, the surface water source(s) can be adequately protected from interference, and/or ground water use under this permit can be regulated if it is found to substantially interfere with surface water:
- i. The permit should contain condition #(s) _____;
 - ii. The permit should contain special condition(s) as indicated in "Remarks" below;

C6. **SW / GW Remarks and Conditions The proposed use will actually augment streamflows when needed to comply with NPDES permit. The applicant will use cooler ground water to mix with warmer treated wastewater in May and November to maintain safe stream temperatures for fish.**

References Used: Nearby well logs; nearby recent reviews; Ground-Water Resources in the Hood Basin, Oregon, by Grady, 1983; Ground-Water Report #33 by Lite & Grondin, 1988.

D. WELL CONSTRUCTION, OAR 690-200

D1. Well #: 1 Logid: HOOD 50547

D2. **THE WELL does not meet current well construction standards based upon:**

- a. review of the well log;
- b. field inspection by _____;
- c. report of CWRE _____;
- d. other: (specify) _____

D3. **THE WELL construction deficiency:**

- a. constitutes a health threat under Division 200 rules;
- b. commingles water from more than one ground water reservoir;
- c. permits the loss of artesian head;
- d. permits the de-watering of one or more ground water reservoirs;
- e. other: (specify) _____

D4. **THE WELL construction deficiency is described as follows:** _____

D5. **THE WELL** a. was, or was not constructed according to the standards in effect at the time of original construction or most recent modification.

b. I don't know if it met standards at the time of construction.

D6. **Route to the Enforcement Section.** I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Enforcement Section and the Ground Water Section.

THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL

D7. Well construction deficiency has been corrected by the following actions: _____

_____, 200____.
(Enforcement Section Signature)

D8. **Route to Water Rights Section (attach well reconstruction logs to this page).**

DETAILED REPORT ON THE WATER AVAILABILITY CALCULATION
Water Availability as of 11/ 5/2007 for
HOOD R > COLUMBIA R - AT RM 0.75

Watershed ID #: 30410575 Basin: HOOD Exceedance Level: 80
Time: 13:18 Date: 11/05/2007

Month	Natural Stream Flow	Consumptiv Use and Storage	Expected Stream Flow	Reserved Stream Flow	Instream Require- ments	Net Water Available
1	797.00	567.00	230.00	182.00	170.00	-122.00
2	946.00	568.00	379.00	202.00	270.00	-93.40
3	980.00	568.00	413.00	180.00	270.00	-37.60
4	1000.00	616.00	384.00	111.00	270.00	3.22
5	1020.00	681.00	339.00	108.00	250.00	-18.50
6	745.00	725.00	20.70	63.90	250.00	-293.00
7	588.00	773.00	-185.00	23.00	250.00	-458.00
8	457.00	734.00	-277.00	16.70	250.00	-544.00
9	438.00	664.00	-226.00	14.60	250.00	-491.00
10	423.00	567.00	-144.00	14.10	220.00	-378.00
11	591.00	567.00	24.30	35.30	100.00	-111.00
12	764.00	567.00	197.00	116.00	170.00	-88.70
Stor-50%	721000	458600	287000	64000	164000	122000

DETAILED REPORT OF CONSUMPTIVE USES AND STORAGES

Water Availability as of 11/ 5/2007 for
HOOD R > COLUMBIA R - AT RM 0.75

Watershed ID #: 30410575 Basin: HOOD Exceedance Level: 80
Time: 13:18 Date: 11/05/2007

Mo	Storage	Irrig	Munic	Ind/Man	Commer	Domest	Agricul	Other	Total
1	0.23	0.00	32.10	2.96	0.23	2.16	29.40	500.00	567.00
2	0.28	0.00	32.10	2.96	0.23	2.16	29.80	500.00	568.00
3	0.26	0.00	32.10	2.96	0.23	2.16	29.80	500.00	568.00
4	0.20	48.80	32.10	2.96	0.07	2.16	29.80	500.00	616.00
5	0.12	114.00	32.10	2.96	0.07	2.16	29.40	500.00	681.00
6	0.09	157.00	32.60	2.96	0.07	2.16	29.40	500.00	724.00
7	0.06	206.00	32.60	2.96	0.07	2.16	29.40	500.00	773.00
8	0.05	167.00	32.50	2.96	0.07	2.16	29.40	500.00	734.00
9	0.04	96.90	32.50	2.96	0.07	2.16	29.40	500.00	664.00
10	0.04	0.16	32.00	2.96	0.07	2.16	29.40	500.00	567.00
11	0.09	0.00	32.10	2.96	0.07	2.16	29.40	500.00	567.00
12	0.17	0.00	32.10	2.96	0.07	2.16	29.40	500.00	567.00

DETAILED REPORT OF RESERVATIONS FOR CONSUMPTIVE USE

Water Availability as of 11/ 5/2007 for
HOOD R > COLUMBIA R - AT RM 0.75

Watershed ID #: 30410575 Basin: HOOD Exceedance Level: 80
Time: 13:18 Date: 11/05/2007

APP #	Reservations							TOTAL
	RN 80401	RN 80402	RN 80403					
1	39.60	129.00	13.40	0.00	0.00	0.00	0.00	182.00
2	43.10	135.00	24.20	0.00	0.00	0.00	0.00	202.00
3	36.10	121.00	23.00	0.00	0.00	0.00	0.00	180.00
4	0.17	99.80	10.80	0.00	0.00	0.00	0.00	111.00
5	0.00	105.00	3.16	0.00	0.00	0.00	0.00	108.00
6	0.00	62.30	1.56	0.00	0.00	0.00	0.00	63.90
7	0.00	22.20	0.76	0.00	0.00	0.00	0.00	23.00
8	0.00	16.10	0.62	0.00	0.00	0.00	0.00	16.70
9	0.00	13.90	0.68	0.00	0.00	0.00	0.00	14.60
10	0.00	13.10	0.94	0.00	0.00	0.00	0.00	14.00
11	0.00	33.80	1.52	0.00	0.00	0.00	0.00	35.30
12	31.30	81.20	3.36	0.00	0.00	0.00	0.00	116.00

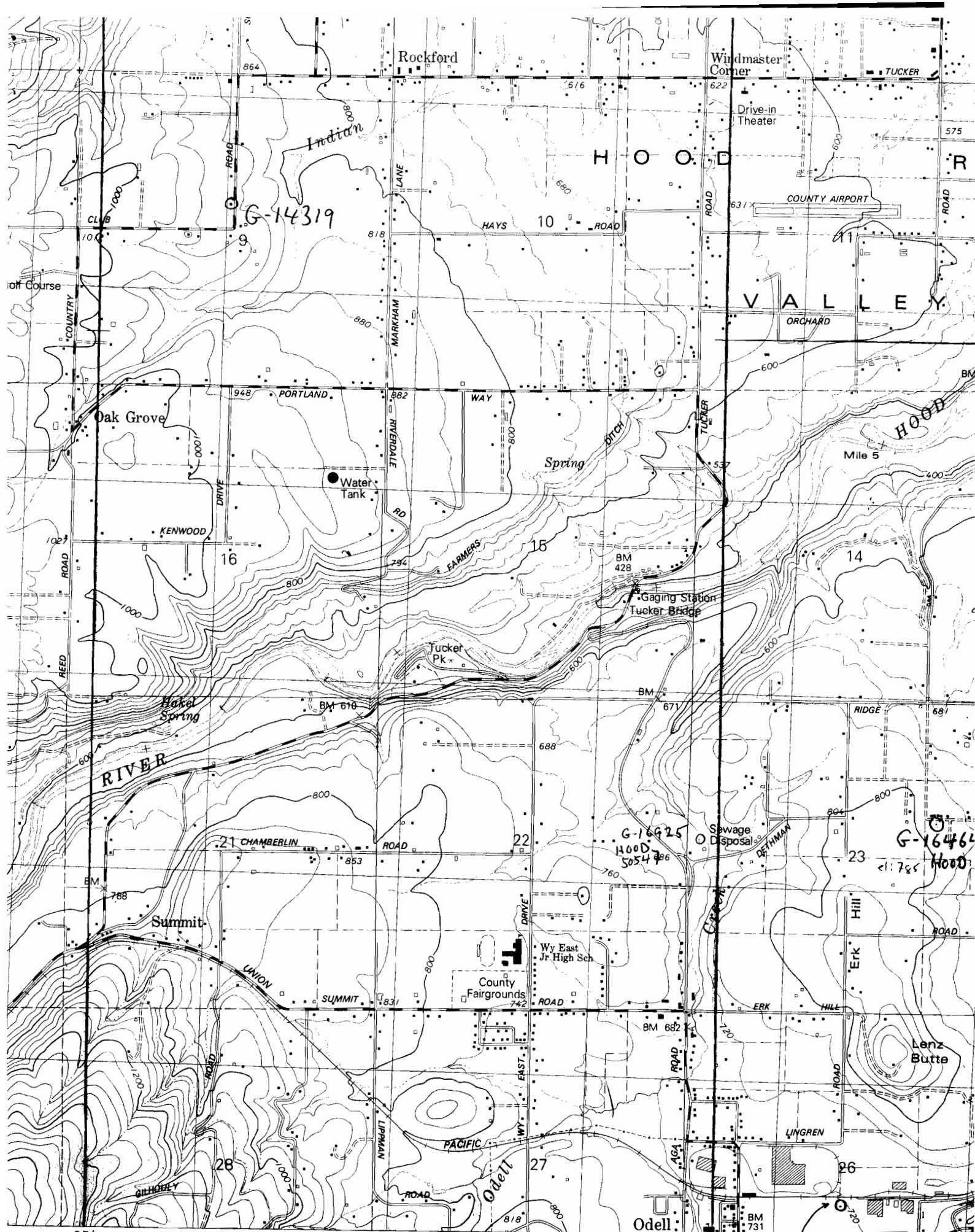
DETAILED REPORT OF INSTREAM REQUIREMENTS

Water Availability as of 11/ 5/2007 for
HOOD R > COLUMBIA R - AT RM 0.75

Watershed ID #: 30410575 Basin: HOOD Exceedance Level: 80
 Time: 13:18 Date: 11/05/2007

-----ISWRs-----									
APP #	IS 83969	MF 191	MF 192	0	0	0	0	0	MAXIMUM
Status	Cert.	Cert.	Cert.						
1	0.00	45.00	170.00	0.00	0.00	0.00	0.00	0.00	170.00
2	0.00	45.00	270.00	0.00	0.00	0.00	0.00	0.00	270.00
3	0.00	45.00	270.00	0.00	0.00	0.00	0.00	0.00	270.00
4	0.00	45.00	270.00	0.00	0.00	0.00	0.00	0.00	270.00
5	250.00	45.00	170.00	0.00	0.00	0.00	0.00	0.00	250.00
6	250.00	45.00	170.00	0.00	0.00	0.00	0.00	0.00	250.00
7	250.00	45.00	130.00	0.00	0.00	0.00	0.00	0.00	250.00
8	250.00	45.00	100.00	0.00	0.00	0.00	0.00	0.00	250.00
9	250.00	45.00	100.00	0.00	0.00	0.00	0.00	0.00	250.00
10	220.00	45.00	100.00	0.00	0.00	0.00	0.00	0.00	220.00
11	0.00	45.00	100.00	0.00	0.00	0.00	0.00	0.00	100.00
12	0.00	45.00	170.00	0.00	0.00	0.00	0.00	0.00	170.00

1



SCALE 1:24 000

Hood River

1 MILE

G-16699 MT. HOOD 7 M.
LL-985