

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-22804

Exam Date: 5/20/2014

1. Current Owner: ROBERT C DAVIS
5887 N. DUXBURY PIER LANE
GARDEN CITY, ID 83714
2. Accompanied by: Robert Davis
Phone No: (208) 850-9261
Address: 6 River Lane, Garden Valley, ID 83622
Relationship to Permit Holder: Owner

3. **SOURCE**

MIDDLE FORK PAYETTE RIVER

TRIBUTARY

PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

MIDDLE FORK PAYETTE RIVER

SE1/4SE1/4

Sec. 27, Twp 10N, Rge 04E, B.M.

BOISE County

Method of Determination: Arc Map (Aerial Photo)

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
10N	04E	27																1.2	1.2

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
10N	04E	26											0.5						0.5

Total Acres: 1.7

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
N/A	Baldor	7.5	Unknown	Berkeley	001D09R, 1 1/2"

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
N/A						

2. Measurements: No field measurement. Operating gauge pressure of 82 psi.

Note: The operating pressure of 82 psi appears to be high. The manufacturer's maximum pressure rating for the Maxi-Paw Impact Sprinkler's is 60 psi.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation)

$$Q = 8.8 \times 0.7 \times 7.5/60 + (2.31 \times 82) = 46.2/249.42 = 0.19 \text{ cfs}$$

$$Q(\text{sprinkler}) = 10 \text{ sprinklers} \times 4.2 \text{ gpm} = 42 \text{ gpm} \sim 0.09 \text{ cfs}$$

$$Q(\text{theoretical}) = 0.19 \text{ cfs} > 0.09 \text{ cfs} \quad Q(\text{sprinkler}) > 0.06 \text{ cfs} \quad Q(\text{permit})$$

$$HP = 7.5$$

$$Z = 60' \text{ (Estimated)}$$

$$P = 82 \text{ psi (Gauge)}$$

Appears that the current pumping system can attain the permit diversion rate of 0.06 cfs.

Recommend the permit diversion rate of 0.06 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.7 \times 4.5 = 7.7 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.06 \times 231 \times 1.9835 = 27.5 \text{ AFA}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 7.7 \text{ AFA}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS**WATER SUPPLY SYSTEM:**

A 7.5-hp centrifugal pump diverts water from the Middle Fork of the Payette River for irrigation of approximately 1.7 acres of lawn, landscaping, and garden areas. Approximately 0.5 acres is located above the river around the home. The remaining 1.2 acres are situated easterly of the home and adjacent to the river.

IRRIGATION SYSTEM:

The 7.5-hp centrifugal pump discharges water through 3" steel main lines. A separate 3" steel main line conveys water to the lower portion of the right holder's property adjacent to the river. A second 3" steel main line extends up the river bank to convey water to the portion of the right holder's property above the river and adjacent to the home. The 1.7 acres of lawn, landscaping, and garden areas are irrigated by a buried pressurized irrigation system. The pressurized irrigation system is comprised of ten (10) stations. Each station contains pop-up Rain Bird Maxi-Paw sprinklers with 'blue' nozzles.

OVERLAP ANALYSIS:

Point of Diversion: There are no point of diversion overlaps for Water Right Permit No. 65-22804.

Place of Use: There are no place of use overlaps for Water Right Permit No. 65-22804.

Have conditions of permit approval been met? ☒ Yes ☐ No

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	0.06	&/or	N/A
Beneficial Use Limit	0.06	&/or	N/A
System Measurement	0.19(theoretical)	&/or	N/A
Proof Fee Amount	0.20	&/or	N/A
Recommended Amount	0.06	&/or	N/A

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 10/31	0.060 CFS	7.70 AFA
	<u>Totals:</u>	0.060 CFS	7.70 AFA

2. Recommended Amendments

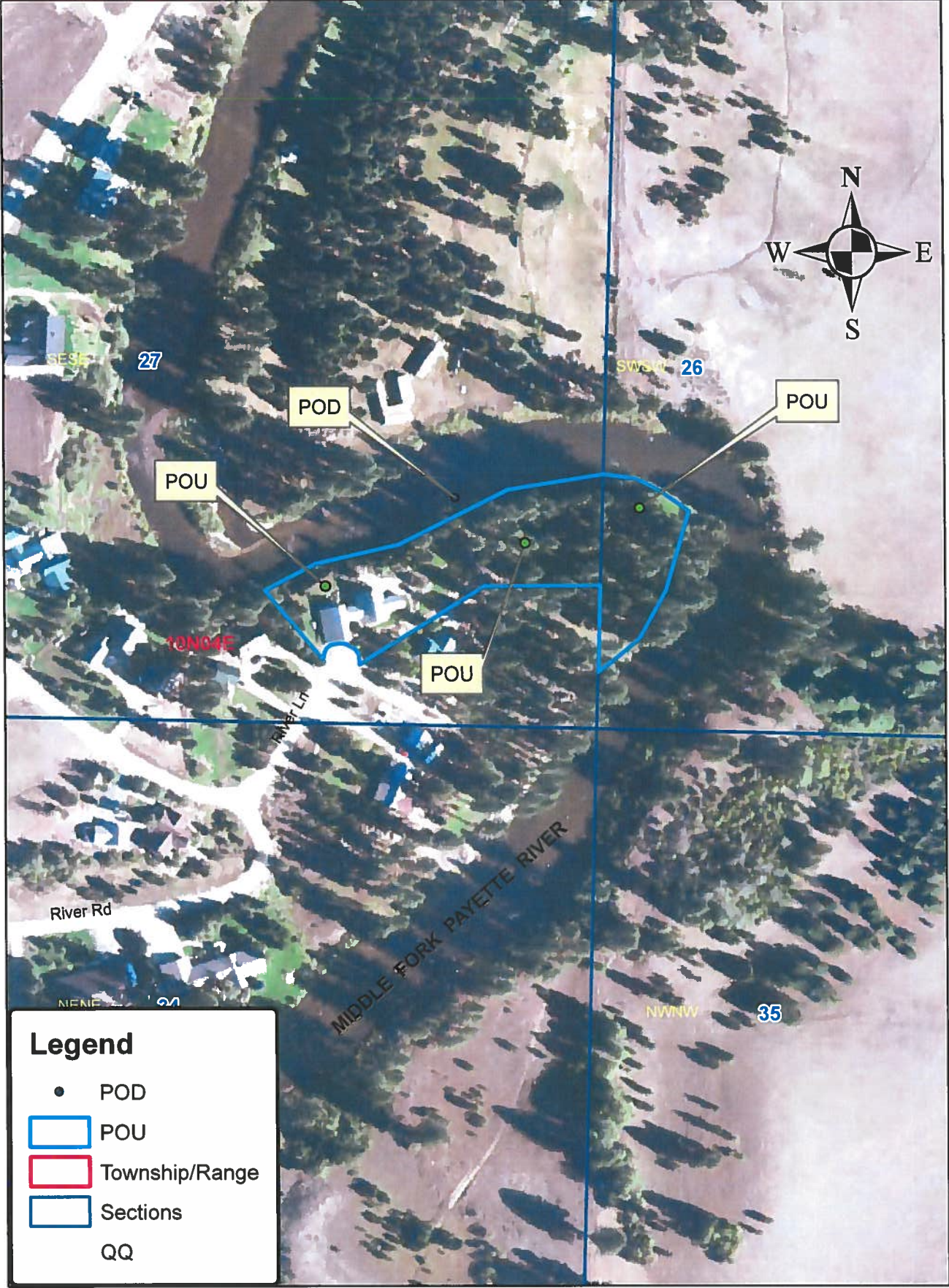
___ Change P.D. as reflected above ___ Add P.D. as reflected above ___ None

___ Change P.U. as reflected above X Add P.U. as reflected above ___ Other

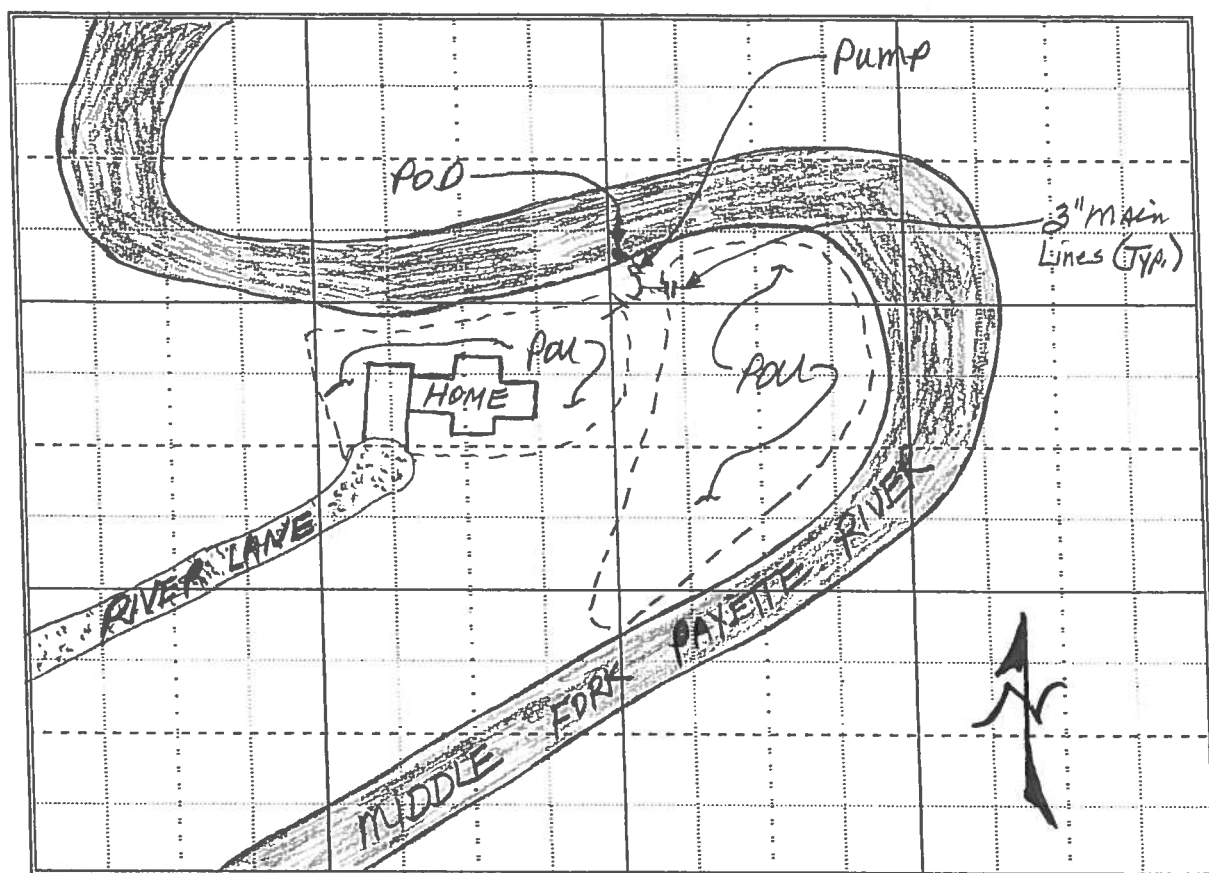
I. AUTHENTICATION

Field Examiner's Name *Rick Collingwood* Date 6/6/14

Reviewer _____ Date _____



3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

FIELD EXAM PHOTOS

Water Right Permit: 65-22804

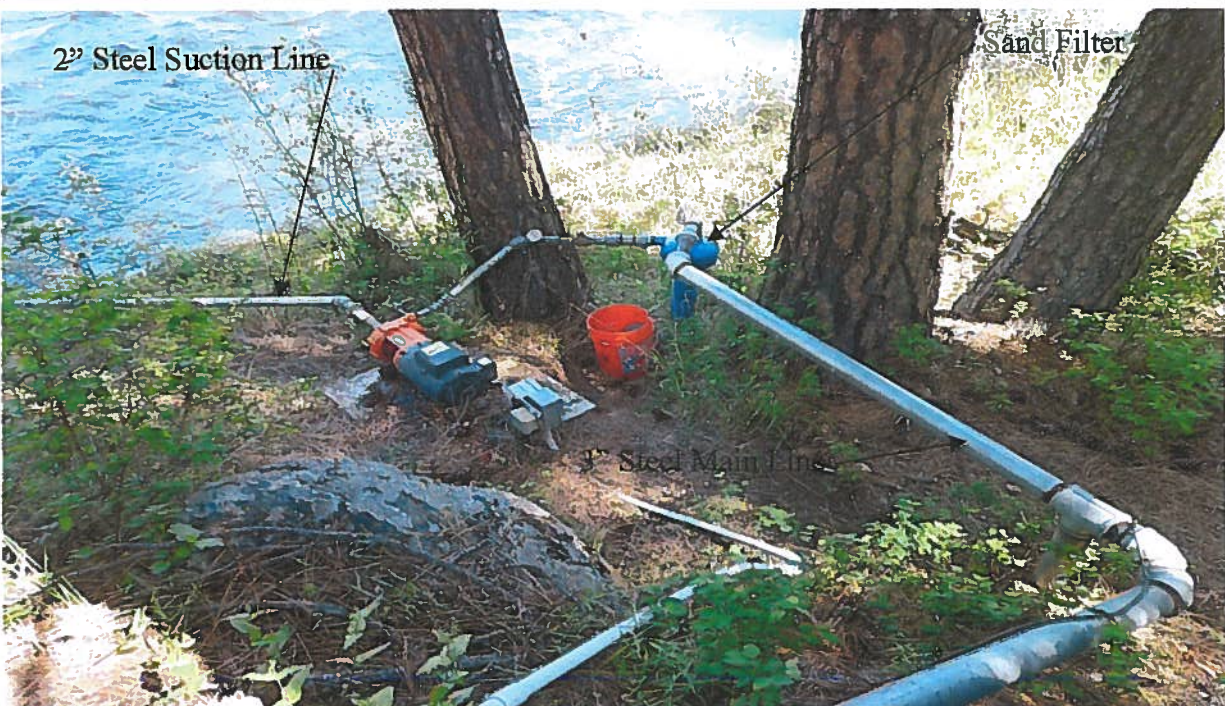
Field Exam Date: 5-20-14

PLS: SE1/4, SE1/4 Section 27, T.10N, R.04E

Field Examiner: RC



Point of Diversion: View northwesterly of the 2" steel suction line in the Middle Fork of the Payette River.



View northeasterly of the 7 1/2-hp centrifugal pump on the bank of the river. Water is discharged through a section of 1 1/2" steel pipe to a sand filter prior to discharging to the 3" steel main line.



View westerly of the 3" steel main line extending up the river bank to the right holders property above the river.



Place of Use: View westerly of the lawn and landscaping near the right holder's home.



Place of Use: View easterly of the portion of the right holder's property adjacent to the river. The right holder sprinkler irrigates with Rain Bird Maxi Paws sprinklers. The irrigation system is comprised of 10 station, with 10 – 12 sprinklers per station.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

June 30, 2014

ROBERT C DAVIS
5887 N DUXBURY PIER LN
GARDEN CITY ID 83617

RE: Water Right Permit No. 65-22804

Dear Permit Holder:

The Department of Water Resources is reviewing the permit referenced above prior to issuing a water right license. By issuing a license, the Department confirms the extent of development that has been established in compliance with the terms of the permit. The examiner who verified your water use reported that certain elements of the permit have been developed differently than described on your permit. Changes that do not increase the authorized use of water under the permit can be requested and approved in accordance with Section 42-211, Idaho Code. Before a license can be issued, your permit must be amended to depict your water use as it was actually developed.

Based on the examiner's report, the following elements were developed differently than described on your permit:

✓ **Place of Use**

The enclosed Application for Amendment form depicts the elements of the water right as they will appear on the license when it is issued. Please review the amendment form carefully. If you concur with the information presented, please sign the form and return it with the \$100.00 filing fee within 14 days.

If you have any questions, please call me at (208)334-2190.

Sincerely,

KAY WALKER
Sr. Water Resource Agent

Enclosure

Amendment App. + Layout



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way, Boise, Idaho 83705-5082

PHONE: (208) 334-2190 FAX: (208) 334-2348 www.idwr.idaho.gov

C.L. "BUTCH" OTTER, Governor
April 30, 2014

GARY SPACKMAN, Director

Robert C. Davis
6 River Lane
Garden Valley, ID 83622

RE: Scheduling Field Exam for Water Right Permit No. 65-22804

Dear Permit Holder:

The Idaho Department of Water Resources (IDWR) is planning to conduct water right field examinations in the vicinity of the above-referenced permit **during the week of May 19**. An examination is needed to verify water use(s) developed under the permit in order to issue a water right license.

Your permit authorizes the diversion of surface water from the Middle Fork of the Payette River for irrigation. If you developed a beneficial use of water and still own the place of use property identified in the permit, please contact me at your earliest convenience to schedule an examination.

If you developed a beneficial use of water under the permit but no longer own the place of use property, please use the enclosed Assignment of Permit form (\$25 fee). This will allow IDWR to work with the new permit owner through the water right licensure process.

A water right license cannot be issued if beneficial use of water was not developed or if use was developed but abandoned. If either of these cases has occurred, please relinquish the permit by using the enclosed Relinquishment of Permit form (no fee required). The permit will be voided if a relinquishment form is not submitted within thirty (30) days. If you no longer own the property and do not assign or relinquish your permit, IDWR will work with the current property owner to issue a license or to void the permit.

Please contact me to schedule a field examination for a day and time that is convenient for you. **Please call me at (208) 334-2190 by May 14 to conduct the field exam during the week of May 19.** If there is a problem with scheduling or conducting the field examination at this time, please let me know so we can reschedule.

Please call me at (208) 334-2190 if you have any questions. I appreciate your attention to this matter and look forward to hearing from you.

Sincerely,

Rick Collingwood, P.E.
Staff Engineer

Enclosure: Relinquishment and Assignment of Permit Forms