Form 219 07/11

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

BENEFICIAL USE FIELD REPORT

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATION

Permit No. 97-7521

1. Owner Outlet Water Association Phone No. 208-443-3146
   Current address PO Box 846 Priest Lake, ID 83856
2. Examiner's name Thomas F. Mullen, PG EXAM DATE 3/30/2020
3. Accompanied by Bill McInerney Email billmcpriestlake@sisna.com
   Address PO Box 846 Priest Lake, ID 83856
   Relationship to permit holder Vice President Outlet Water Association Phone No. 208-443-3146
4. Source Groundwater tributary to

B. OVERLAP REVIEW

1. Other water rights with the same place of use 97-7291, 97-2053, 97-7013
2. Other water rights with the same source and point of diversion 97-7291

C. DIVERSION AND DELIVERY SYSTEM

Well #1 48 30.1072' N, 116 54.2998' W

Well #2 (D0072233)
48 30.1037' N, 116 54.2950' W (Figures 1 through 3)

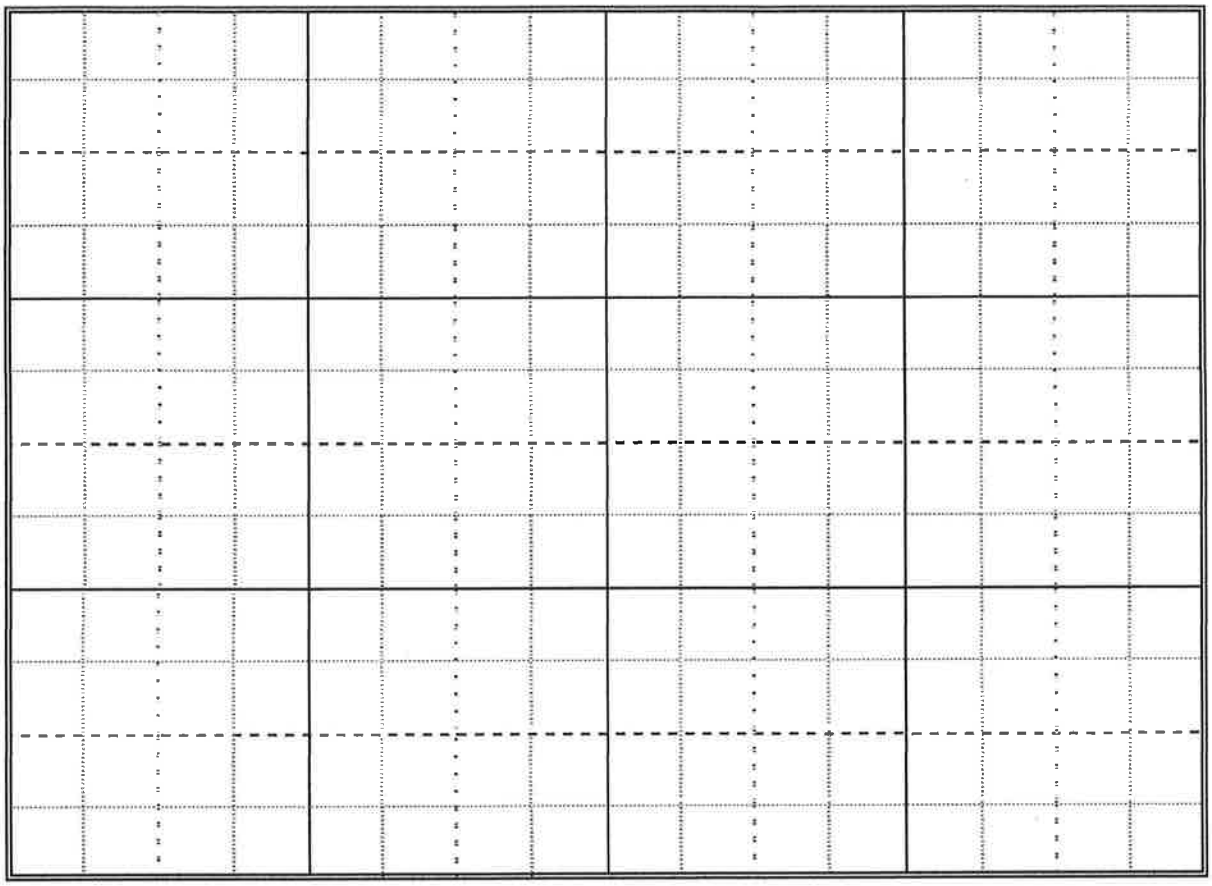
1. **Point(s) of Diversion:**

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
Well #1		SW	SW	SE	31	60N	04W	Bonner	Exam, GPS, Google Earth
Well #2		SW	SW	SE	31	60N	04W	Bonner	Exam, GPS, Google Earth

2. **Place(s) of Use:** Method of determination Exam, Google Earth, Bonner Co. Assessor GIS (Figures 1-6)

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
59N	04W	5						M	M			M							
		6		M	M	M					M				M	M			
60N	04W	32									M		M	M					

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" = _____

☒ 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

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Well #1	Franklin	10		Gould 150H 10 4	150 gpm
Well #2 (D0072233)	Franklin	10		Gould 150H 10 4	150 gpm

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Badger Flow Meter		Recordall	T-450	29310045	3-inch	Unknown
Badger Flow Meter		Recordall	T-450	35731924	3-inch	Unknown

2. **Measurements:** _____

E. NARRATIVE/REMARKS/COMMENTS

See Attached Narrative

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

F. FLOW CALCULATIONS

☐ Additional computation sheets attached

Measured Method:

Flow was measured using the installed Recordall flow meters by timing 3 sequential 100-gallon increments of diverted volume. Flow measurement calculations or each well are as follows:

Well #1: 100 gal / ((49+50+50 secs / 3) / 60 sec/min) = 120.8 gpm = 0.27 cfs

Well #2: 100 gal / ((53+53+54 secs / 3) / 60 sec/min) = 112.5 gpm = 0.25 cfs

Total Flow: 120.8 + 112.5 gpm = 233.3 gpm = 0.52 cfs

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R}$ = (Acres Irrigated) x (Irrigation Requirement) = _____

$V_{D.R}$ = [Diversion Rate (cfs)] x (Days in Irrigation Season) x 1.9835 = _____

V = Smaller of $V_{I.R.}$ and $V_{D.R.}$ = _____

2. Volume Calculations for Other Uses:

See Attached Narrative

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use From	Period of Use To	Rate of Diversion Q (cfs)	Annual Volume V (afa)
Municipal	1/1	12/31	0.52	39.4
		Totals:		

2. Recommended Amendments

☐ Change P.D. as reflected on page 1 ☐ Add P.D. as reflected on page 1 ☒ None

☐ Change P.U. as reflected on page 1 ☐ Add P.U. as reflected on page 1 ☐ Other

I. AUTHENTICATION

Field Examiner's Signature Thomas F. Mullen Date April 24, 2020

Certified Water Right Examiner No. 143

REGISTERED PROFESSIONAL GEOLOGIST THOMAS F. MULLEN 931 STATE OF IDAHO SEAL

Reviewer _____ Date _____

Outlet Water Association

Beneficial Use Report Narrative

Water Right Permit No. 97-7521

The Outlet Water Association (OWA) serves a total of 60 customers. The majority of the customers are residential summer homes that only have occupancy during a few months of the year. Three of the customers consist of multiple residential connections. Multiple-connection customers include the Kokanee Park Home Owners Association (KPHOA), the Outlet Bay Owners Association (OBOA), and the Lemon Property (see Attachment A). The remaining customers are individual residences. In addition, OWA provides water to two U.S. Forest Service (USFS) campgrounds. Figures 1 through 7 show the locations of the OWA customers.

Existing Water Rights

Water Right No. 97-7291 - Groundwater source provides 0.27 cubic feet per second (cfs) and an annual volume of 42 acre-feet (AF) to 35 homes for domestic uses. The point of diversion (POD) is a well (Well No. 1) located in the southwest (SW ¼) of the southwest (SW ¼) of the southeast (SE ¼) of Section 31, Township 60 North, Range 04 West, B.M.

Water Right No. 97-7013 - Spring source provides 0.15 cfs and 58.1 AF to 46 homes for domestic and 31 campsites (Outlet Bay Campground).

Water Right No. 97-2053 - Spring source provides 0.06 cfs and 42 AF to 35 homes for domestic use.

Both springs have not been used since 1989 when Well No. 1 was installed. Following its completion and connection to the water system, Well No. 1 replaced the diversion from the two springs. As such, OWA only uses the groundwater source (Water Right No. 97-7291 and Permit No. 97-7521) for its customers. Further, OWA does not plan to use the springs as a source of water and intends to relinquish the two water rights.

Point of Diversion

The POD includes a groundwater source from two wells located in the southwest (SW ¼) of the southwest (SW ¼) of the southeast (SE ¼) of Section 31, Township 60 North, Range 04 West, Boise Meridian (B.M.). The PODs are located on leased land owned by the USFS. Well No. 1 was drilled in 1989 and has a total depth of 65 feet. Well No. 2 was drilled in 2016 and has a total depth of 70 feet. Both wells are fitted with Gould 10 HP pumps. According to United Crown Pump & Drilling, who last serviced the pumps, pump intakes are set at approximately 50 and 59 feet deep, respectively. A pressure gage in the adjacent pump house indicated 48 pounds per square inch (psi). Flow measurements taken on March 30, 2020 resulted in total flow of 233.3 gallons per minute (gpm) (0.52 cfs).

Place of Use

The place of use (POU) includes residences located along Outlet Bay Road, Match Bay Road, Match Bay Court, Lake Street, Pettit Lane and two USFS campgrounds located north along Priest Lake (Figure 2). Connections are summarized below.

- 55 individual residential customers/connections

- Kokanee Park HOA (36 residential connections)
- Outlet Bay Owners Association (36 residential connections)
- Lemon Property (8 residential connections)
- USFS Outlet Bay Campground (28 campsites; 3 vault toilets)
- USFS Osprey Campground (4 hydrants;16 campsites; 2 flush toilets)

There are also three (3) stubbed-in lots not included above. Based on the connection summary above a total of 135 residential connections plus 3 stubbed-in lots and the two campgrounds are evaluated in this Beneficial Use Field Report.

Residences along Three Waters Road, Hummingbird Lane, and Paradise Lane are not served by OWA (see "Excluded Area" in Figure 2). They are served by their own water system. In addition, three privately-owned parcels located between the two USFS campgrounds are not served by OWA (see "Excluded Area" in Figure 7). As such, these properties are not considered part of this Beneficial Use Field Report.

Distribution System

Flow from the wells through the adjacent pump house is conveyed by a combination of 4-inch and 3-inch PVC pipes along Highway 57 (Figure 3). Groundwater is conveyed to two storage tanks (Figure 3). These tanks have capacities of 60,000 and 20,000 gallons. Storage tanks are located on land owned by the Outlet Bay Sewer District. Water from the storage tanks is conveyed to the distribution lines via an 8-inch PVC main.

From the storage tanks, an 8-inch PVC main comes down straight south and goes under Outlet Bay Road to the south edge. The main Ts and goes east and west along the south edge of Outlet Bay Road, and south down the east edge of Match Bay Road. Heading east along the south edge of Outlet Bay Road, the piping transitions to 6-inch transite immediately beyond the T, and then transitions to 4-inch transite at 400 Outlet Bay Road (Figure 4). The line continues to where it connects to the OBOA (36 residential connections), just beyond 502 Outlet Bay Road (just beyond the intersection with Lake Street) (Figure 4). From there on the piping is owned and maintained by OBOA.

At the intersection with Pettit Lane, the water line Ts to 2-1/2-inch PVC and runs along the east edge of Pettit Lane (Figure 5). The water line transitions to 2-inch PVC at 51 Pettit Lane and goes to just beyond 185 Pettit Lane where it connects the Lemon Property development (8 residential connections). From there on the water line is owned and maintained by Lemon.

At the intersection of Lake Street and Outlet Bay Road, the water line Ts to 2-1/2-inch PVC and runs along the east edge of Lake Street (Figure 5). The water line transitions to 2-inch PVC at 109 Lake Street and continues on terminating at 221 Lake street.

At the intersection of Outlet Bay Road and Match Bay Road, the 8-inch PVC main heads west along the south edge of Outlet Bay Road and transitions to 2-inch PVC after 50 feet and continues just beyond 142 Outlet Bay Road where it terminates and has a ¾-inch connection to Kokanee Park's line (Figure 6). From there on, the water line is owned and maintained by Kokanee Park HOA (36 residential connections).

Back at the T at Outlet Bay Road and Match Bay Road, the 8-inch PVC continues south along the east edge of Match Bay Road to a hydrant in front of 147 Match Bay Road, where it

terminates with a service tap to 184 Match Bay Road (Figure 6). At the intersection of Match Bay Road and Match Bay Court, the 8-inch PVC Ts and runs along the north edge of Match Bay Court and terminates in front of 52 Match Bay Court, with service taps to 52 and 72 Match Bay Court.

At the intersection of Outlet Bay Road and West Lakeshore Road, the water line Ts and continues on to the Outlet and Osprey campgrounds (Figure 7). The USFS owns and maintains the water line from this T.

Water Volume Usage

The Outlet Water Association maintains flow records for each well. Annual flows (in gallons [gal] and acre-feet [AF]) for the two wells since Well No. 2 was installed are summarized below.

Well No. 1

Date-Time	Gallons	Gallons Used	AF
12/29/15 1:45 PM	51889500		
12/29/16 10:30 AM	62590100	10700600	32.8
12/31/17 12:00 PM	68218800	5628700	17.3
12/21/18 12:00 PM	72821200	4602400	14.1
12/30/19 9:00 AM	78177100	5355900	16.4

Well No. 2 (online on 12/7/2016)

Date-Time	Gallons	Gallons Used	AF
12/29/16 10:30 AM	122800		
12/31/17 1:45 PM	6158100	6035300	18.5
12/21/18 12:00 PM	11418300	5260200	16.1
12/30/19 9:00 AM	16968700	5550400	17.0

Total Volumes (Well Nos. 1 and 2)

Year	Well No. 1 (AF)	Well No. 2 (AF)	Total Volume (AF)
2017	17.3	18.5	35.8
2018	14.1	16.1	30.2
2019	16.4	17.0	33.4

Volume Calculations

The greatest average annual volume of 35.8 AF occurred in 2017. A breakdown of the annual volume is evaluated as follows:

USFS Outlet Bay Campground (see Attachment B):

28 campsites times estimated 4 campers per campsite for 136 days per year at 5 gallons per day (gpd) (based on vault toilets) per camper equals 76,160 gallons or 0.23 AF.

USFS Osprey Campground (see Attachment C):

16 campsites times estimated 4 campers per campsite for 136 days per year at 25 gpd (based on single-flush toilets) per camper equals 217,600 gallons or 0.67 AF.

Total campground volume is 0.90 AF (0.23 + 0.67 AF = 0.90 AF).

Available Volume for Residential Connections

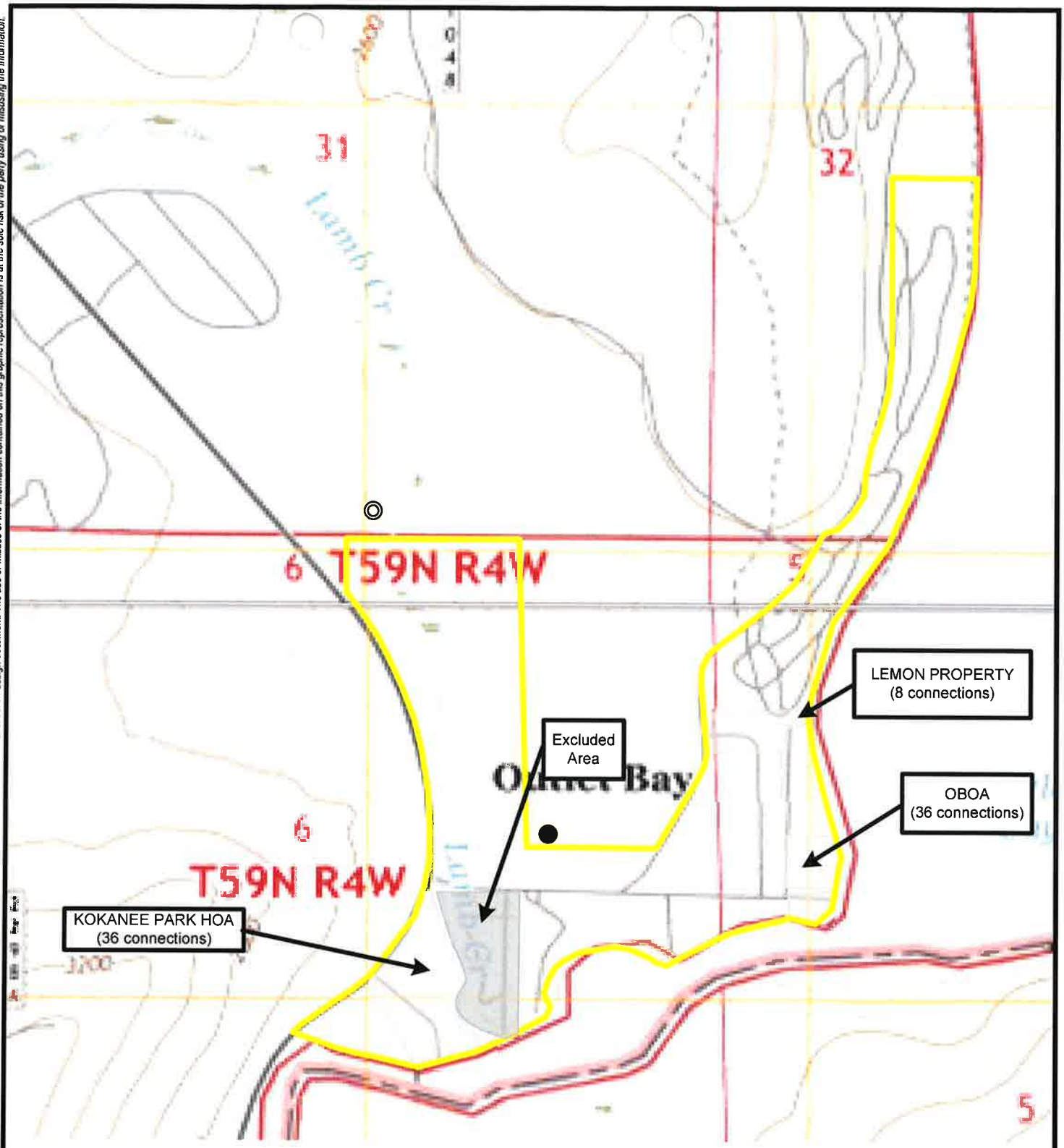
Total annual volume of 35.8 AF minus the total campground volume of 0.9 AF equals 34.9 AF. The average volume per residential connection equates to 0.26 AF per connection (34.9 AF / 135 residential connections). Comparatively, the normal allocation of 1.2 AF per residential connection would result in 162 AF (1.2 AF x 135 residential connections). The total actual volume diverted is much less than the amount that is generally authorized for residential connections.

Recommended Volumes

As indicated above, the majority of the residential connections are summer homes with only a few months occupancy. It is unknown if more of the residences will become permanent in the future. Further, it is unknown at present if the three stubbed-in lots will be developed as permanent residents or summer residences. Because of this uncertainty with the stubbed-in lots, a volume of 1.2 AF per lot or 3.6 AF is recommended.

Based on the actual volume diverted (2017), this Beneficial Use Field Report recommends a total annual diversion of **39.4 AF** (35.8 AF plus 3.6 AF) for the 138 residential connections/lots (135 residential connections plus 3 lots) and the two campgrounds. Water Right No. 97-7291 already provides a higher volume of water (42 AF for 35 residential connections) than what has actually been diverted from this system. Further, Water Right No. 97-7291 does supply an additional diversion rate of 0.27 cfs whereas the current system under Permit No. 97-7521 diverts 0.52 cfs and covers those lots originally covered by the spring water rights and those lots currently not covered by an existing water right.

As indicated above, the recommended annual diversion of 39.4 AF is much less than the generally authorized volume. Because of the uncertainty if some summer homes would become permanent residences, the IDWR may want to consider a greater annual diversion volume. A greater authorized volume would likely provide sufficient diversion for future permanent residences.



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LEGEND

- POINT OF DIVERSION (POD) – WELLS #1 & #2
- 2 STORAGE TANKS
- PLACE OF USE (POU) BOUNDARY

0 — 0.5 Mile

N

Source: USGS Priest Lake SW and Outlet Bay, Idaho (2017) 7.5-Minute Series Quadrangles

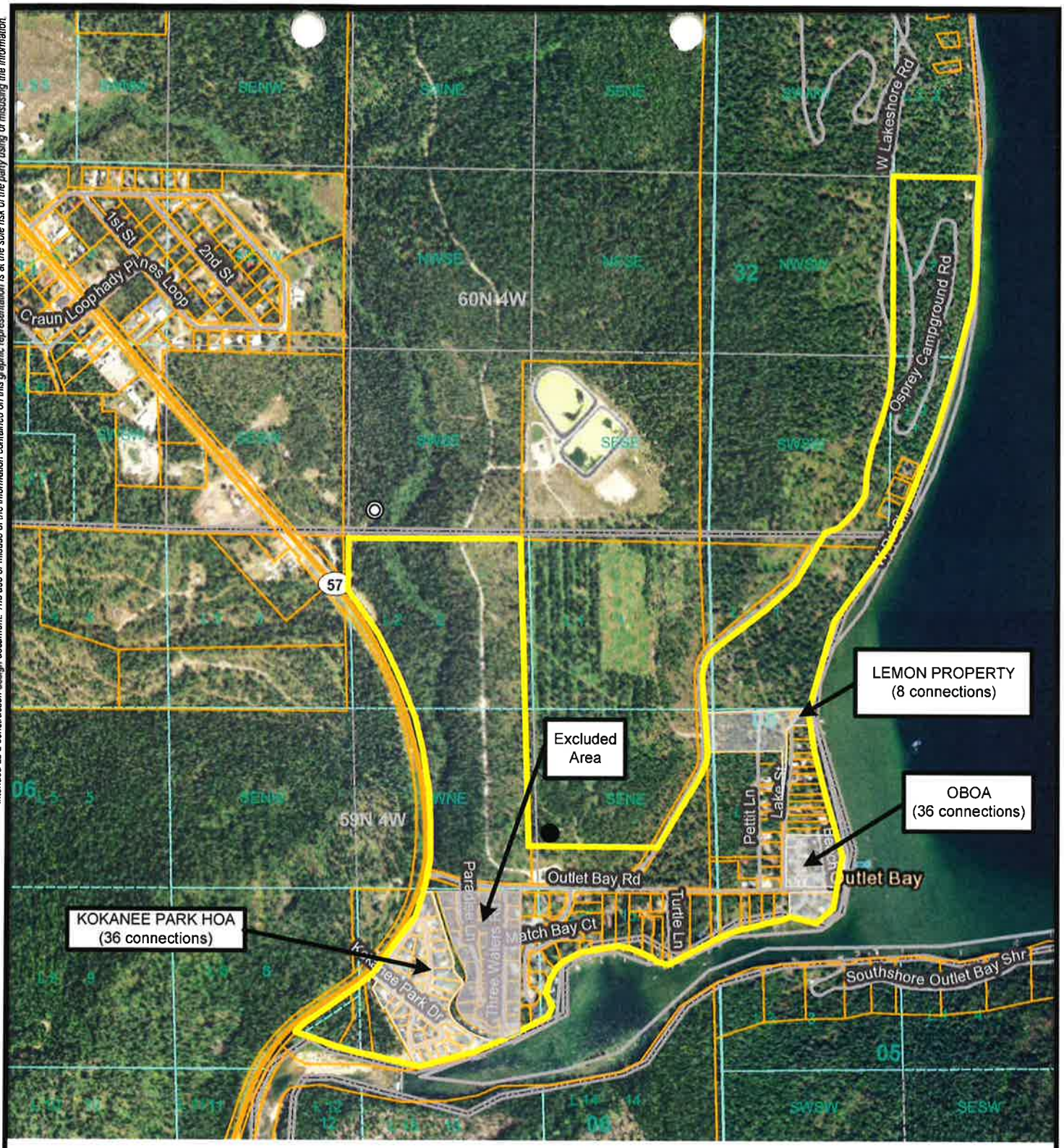
Northwest Groundwater Consultants, LLC

01154-01	APRIL 2020

SITE LOCATION MAP

PERMIT NO. 97-7521
BENEFICIAL USE FIELD REPORT
OUTLET WATER ASSOCIATION
BONNER COUNTY, IDAHO

FIGURE 1



LEGEND

- POINT OF DIVERSION (POD) – WELLS #1 & #2
- 2 STORAGE TANKS
- PLACE OF USE (POU) BOUNDARY

0 — 0.5 Mile

Source: Bonner County, Idaho GIS

Northwest Groundwater Consultants, LLC

01154-01	APRIL 2020

SITE AERIAL MAP

PERMIT NO. 97-7521
BENEFICIAL USE FIELD REPORT
OUTLET WATER ASSOCIATION
BONNER COUNTY, IDAHO

FIGURE 2

April 2, 2020

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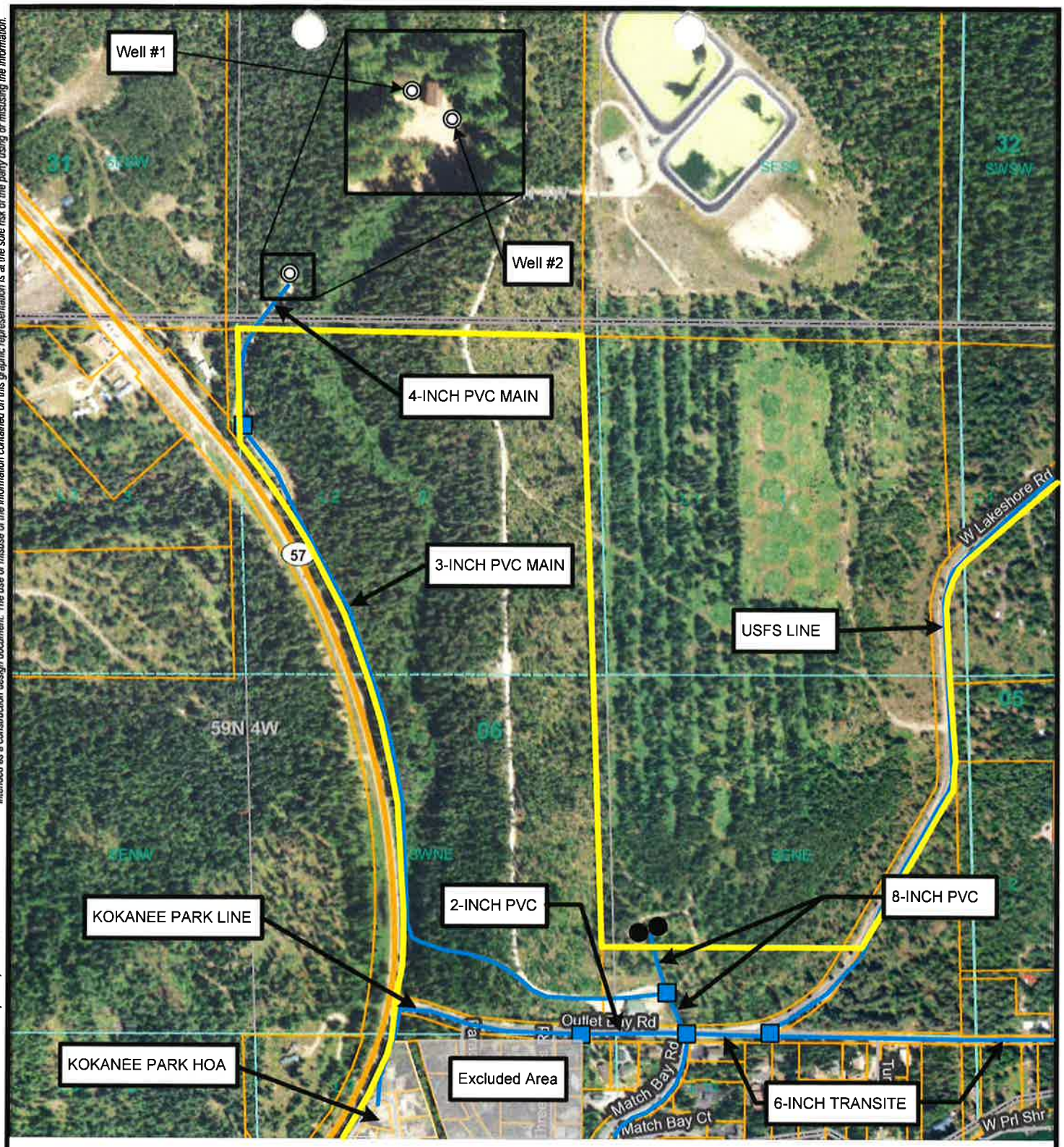

LEGEND

- POINT OF DIVERSION (POD) – WELLS #1 & #2
- STORAGE TANK
- DISTRIBUTION LINE
- PLACE OF USE (POU) BOUNDARY

0 0.2 Mile

Source: Bonner County, Idaho GIS

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Northwest Groundwater Consultants, LLC

01154-01	APRIL 2020

POD AND POU LOCATIONS

PERMIT NO. 97-7521
BENEFICIAL USE FIELD REPORT
OUTLET WATER ASSOCIATION
BONNER COUNTY, IDAHO

FIGURE 3

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Northwest Groundwater Consultants, LLC		**POU LOCATIONS** PERMIT NO. 97-7521 BENEFICIAL USE FIELD REPORT OUTLET WATER ASSOCIATION BONNER COUNTY, IDAHO	**FIGURE** **4**
01154-01	APRIL 2020		

April 2, 2020

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LEGEND

DISTRIBUTION LINE

PLACE OF USE (POU) BOUNDARY

0 — 0.13 Mile

Source: Bonner County, Idaho GIS

Northwest Groundwater Consultants, LLC

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POU LOCATIONS

PERMIT NO. 97-7521
BENEFICIAL USE FIELD REPORT
OUTLET WATER ASSOCIATION
BONNER COUNTY, IDAHO

FIGURE 5

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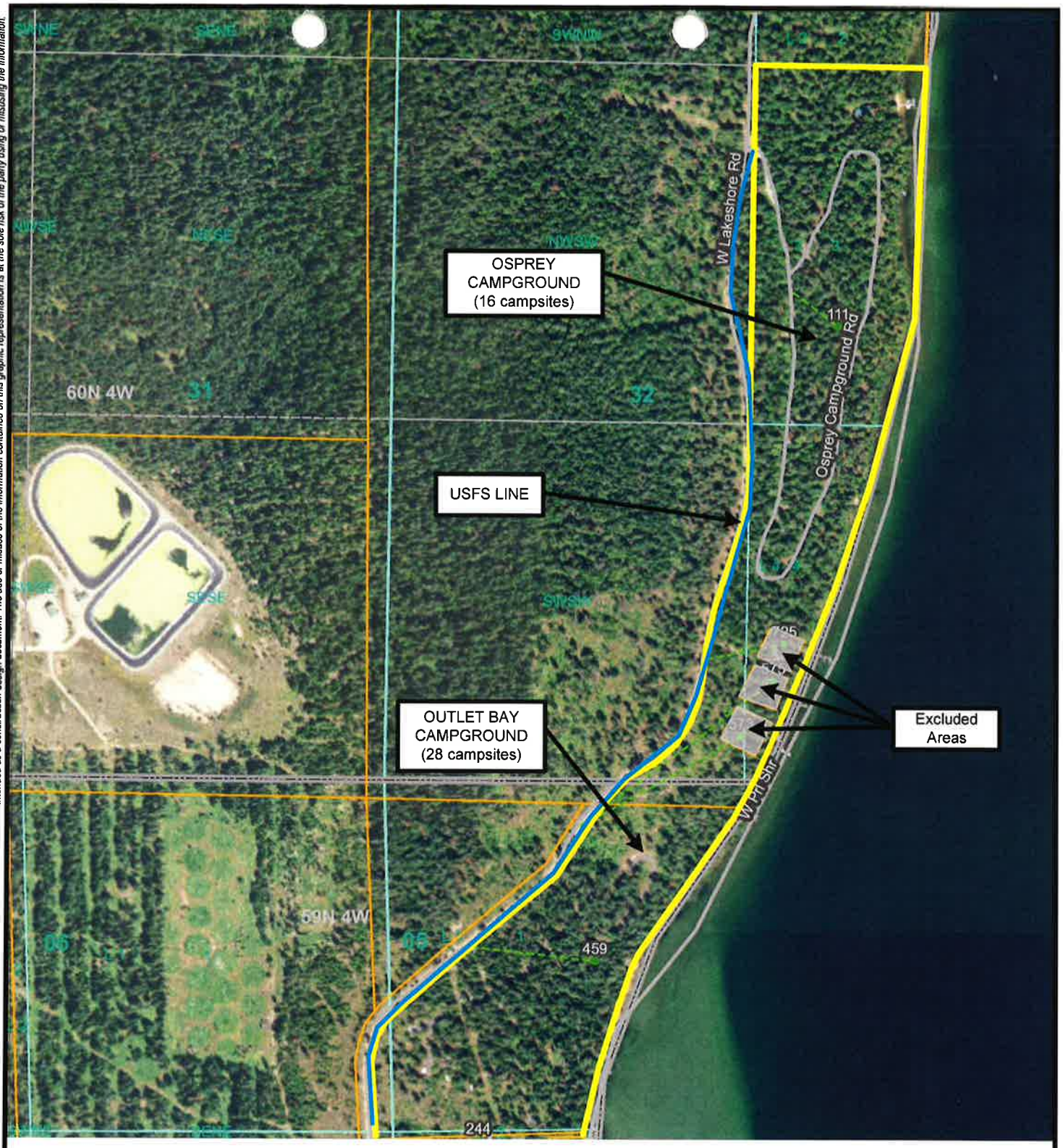
Northwest Groundwater Consultants, LLC	**POU LOCATIONS** PERMIT NO. 97-7521 BENEFICIAL USE FIELD REPORT OUTLET WATER ASSOCIATION BONNER COUNTY, IDAHO	**FIGURE** **6**
01154-01	APRIL 2020	



April 2, 2020

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LEGEND

DISTRIBUTION LINE

PLACE OF USE (POU) BOUNDARY

0 0.2 Mile

Source: Bonner County, Idaho GIS

Northwest Groundwater Consultants, LLC

01154-01	APRIL 2020

POU LOCATIONS

PERMIT NO. 97-7521
BENEFICIAL USE FIELD REPORT
OUTLET WATER ASSOCIATION
BONNER COUNTY, IDAHO

FIGURE 7

Attachment A – Outlet Water Association Customer List

Individual Customers/Connections (55 connections)

109 Lake ST	33 Match Bay RD	141 Pettit LN
111 Lake ST	52 Match Bay RD	151 Pettit LN
131 Lake ST	142 Outlet Bay RD	185 Pettit LN
137 Lake ST	162 Outlet Bay RD	21 Pettit LN
151 Lake ST	272 Outlet Bay RD	22 Pettit LN
165 Lake ST	274 Outlet Bay RD	37 Pettit LN
181 Lake ST	318 Outlet Bay RD	51 Pettit LN
189 Lake ST	358 Outlet Bay RD	71 Pettit LN
197 Lake ST	360 Outlet Bay RD	91 Pettit LN
221 Lake ST	400 Outlet Bay RD	16 Turtle LN
83 Lake ST	414 Outlet Bay RD	30 Turtle LN
95 Lake ST	448 Outlet Bay RD	32 Turtle LN
97 Lake ST	450 Outlet Bay RD	41 Turtle LN
52 Match Bay CT	455 Outlet Bay RD	72 Turtle LN
72 Match Bay CT	472 Outlet Bay RD	75 Turtle LN
121 Match Bay RD	474 Outlet Bay RD	
13 Match Bay RD	481 Outlet Bay RD	
14 Match Bay RD	502 Outlet Bay RD	
147 Match Bay RD	111 Pettit LN	
184 Match Bay RD	129 Pettit LN	

Stubbed-In Vacant Lots (3 connections)

180 Match Bay RD
18 Match Bay RD
Between 13 and 33 Match Bay RD

Attachment A – Outlet Water Association Customer List

Outlet Bay Owners Association (36 connections)

3 Beach DR	66 Beach DR	27 Pawnee PT
11 Beach DR	67 Beach DR	31 Pawnee PT
17 Beach DR	70 Beach DR	35 Pawnee PT
19 Beach DR	9 Lake ST	22 Summer Haven
21 Beach DR	91 Lake ST	30 Summer Haven
26 Beach DR	543 Outlet Bay Rd	32 Summer Haven
31 Beach DR	544 Outlet Bay Rd	38 Summer Haven
33 Beach DR	546 Outlet Bay Rd	45 Summer Haven
34 Beach DR	556 Outlet Bay Rd	50 Summer Haven
41 Beach DR	13 Pawnee PT	53 Summer Haven
54 Beach DR	20 Pawnee PT	63 Summer Haven
65 Beach DR	23 Pawnee PT	64 Summer Haven

Kokanee Park HOA (36 connections)

8 S Kokanee PK LP	63 N Kokanee PK LP	130 N Kokanee PK LP
10 S Kokanee PK LP	68 S Kokanee PK LP	140 N Kokanee PK LP
14 N Kokanee PK LP	75 Kokanee PK DR	140 S Kokanee PK LP
15 N Kokanee PK LP	79 S Kokanee PK LP	147 N Kokanee PK LP
23 S Kokanee PK LP	80 S Kokanee PK LP	150 N Kokanee PK LP
28 S Kokanee PK LP	92 S Kokanee PK LP	182 N Kokanee PK LP
38 Kokanee PK DR	94 S Kokanee PK LP	183 N Kokanee PK LP
47 S Kokanee PK LP	98 S Kokanee PK LP	190 N Kokanee PK LP
47 N Kokanee PK LP	102 S Kokanee PK LP	202 N Kokanee PK LP
56 S Kokanee PK LP	108 S Kokanee PK LP	203 N Kokanee PK LP
59 N Kokanee PK LP	116 N Kokanee PK LP	208 N Kokanee PK LP
62 Kokanee PK DR	120 S Kokanee PK LP	226 N Kokanee PK LP

Lemon Property (8 connections)

195 Pettit LN	244 Pettit LN
207 Pettit LN	225 Lake ST
219 Pettit LN	227 Lake ST
243 Pettit LN	Between 221 & 225 Lake ST

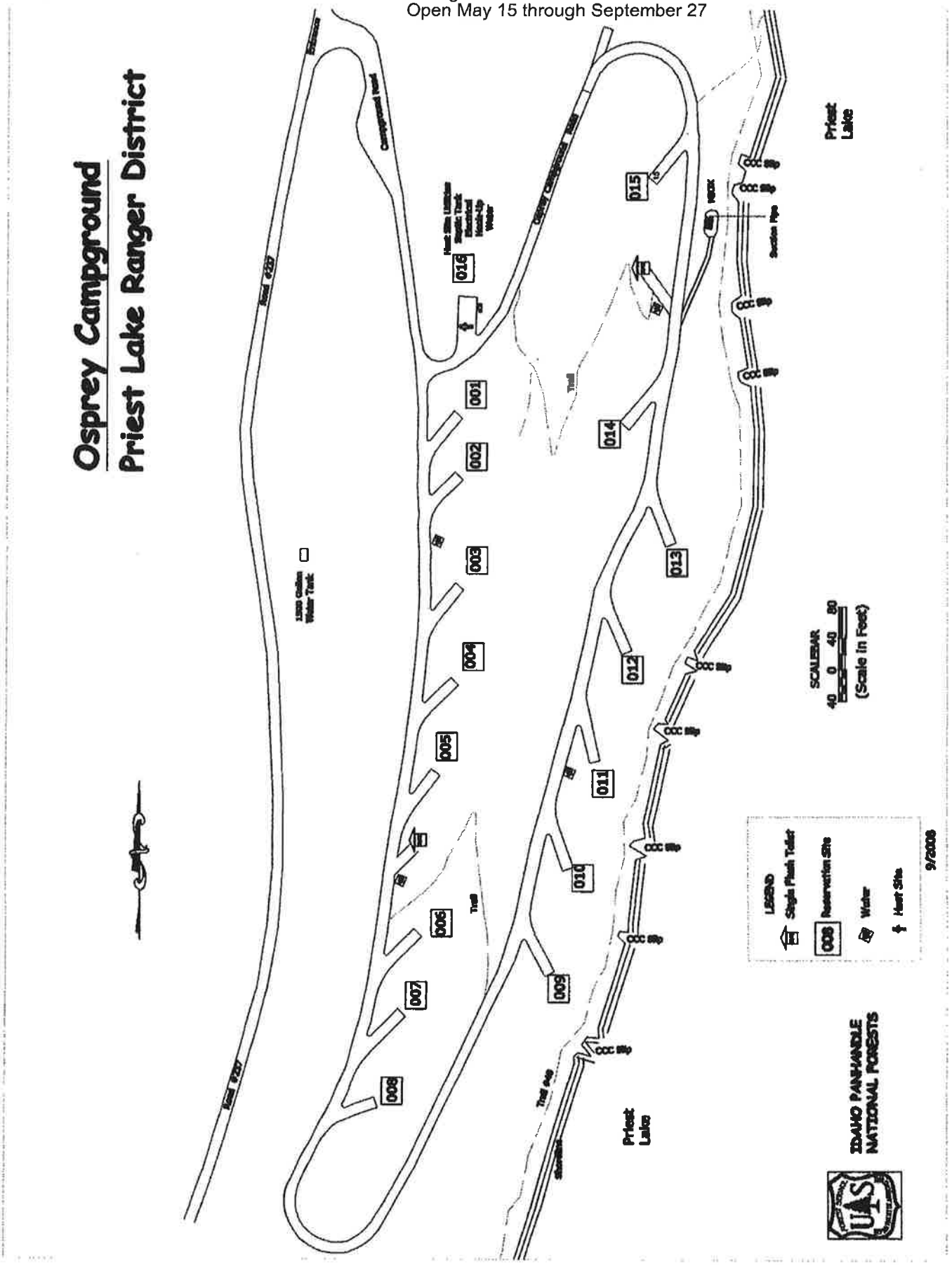
TTACHMENT B

28 Campsites
3 Vault Toilets
Open May 15 through September 27

OUTLET BAY CAMPGROUND #1

ATTACHMENT C

16 Campsites
2 Single-Flush Toilets
Open May 15 through September 27



PHOTOGRAPHS
Permit No.97-7521
Outlet Water Association
Beneficial Use Field Report

Pump House

Well No. 1, standby generator, propane fuel tank

Pump House Interior

PHOTOGRAPHS
Permit No.97-7521
Outlet Water Association
Beneficial Use Field Report

Pump House Interior

Well No. 2 flow meter

Pump House Interior

Well No. 1 flow meter

PHOTOGRAPHS
Permit No.97-7521
Outlet Water Association
Beneficial Use Field Report

Pump House Interior

Well No1 flow meter

Pump House

Well No. 2 in foreground; Well No. 1 in background

PHOTOGRAPHS
Permit No.97-7521
Outlet Water Association
Beneficial Use Field Report

Storage Tanks

30,000-gallon tank on left; 18,000-gallon tank on right

Storage Building

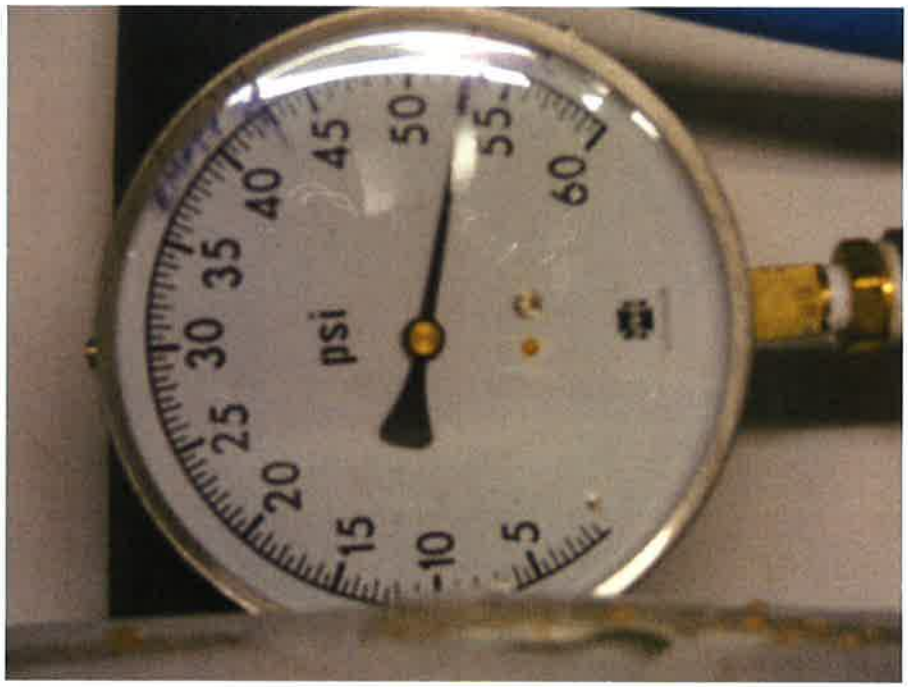
Storage tanks in background - 30,000-gallon tank on left; 18,000-gallon tank on right

PHOTOGRAPHS
Permit No.97-7521
Outlet Water Association
Beneficial Use Field Report

Equipment Storage Building

Pressure Gauge

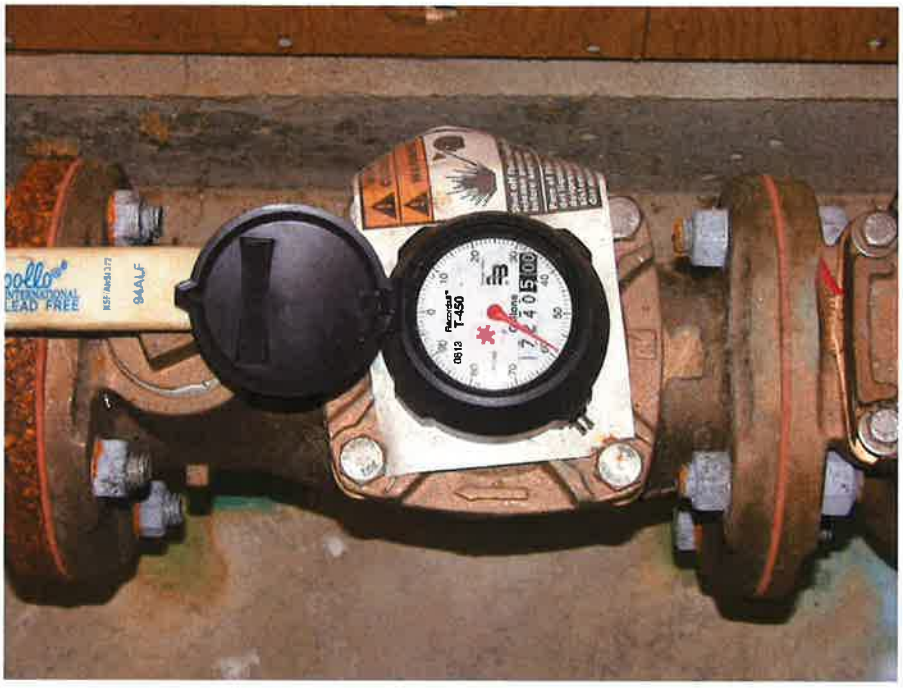
Located in basement of operator residence



PHOTOGRAPHS
Permit No.97-7521
Outlet Water Association
Beneficial Use Field Report

Flow Meter

Well No. 2



Flow Meter

Well No. 1

PHOTOGRAPHS
Permit No.97-7521
Outlet Water Association
Beneficial Use Field Report

Pressure Gauge

Located in pump house