

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

OCT 21 2019

DEPARTMENT OF
WATER RESOURCES

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 INFORMATIONPermit No. 85-15795

1. Owner City of Culdesac Phone No. 208-843-5483
 Current address 100 6th St; Culdesac, ID 83524
2. Examiner's name Necia Maiani, PE EXAM DATE 08/30/2019
3. Accompanied by Jason Miller (City of Culdesac) Email cofcul@idaho.net
 Address _____
 Relationship to permit holder Operator Phone No. 208-843-5483
4. Source Groundwater tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use 85-7087
2. Other water rights with the same source and point of diversion 85-7087

C. DIVERSION AND DELIVERY SYSTEM

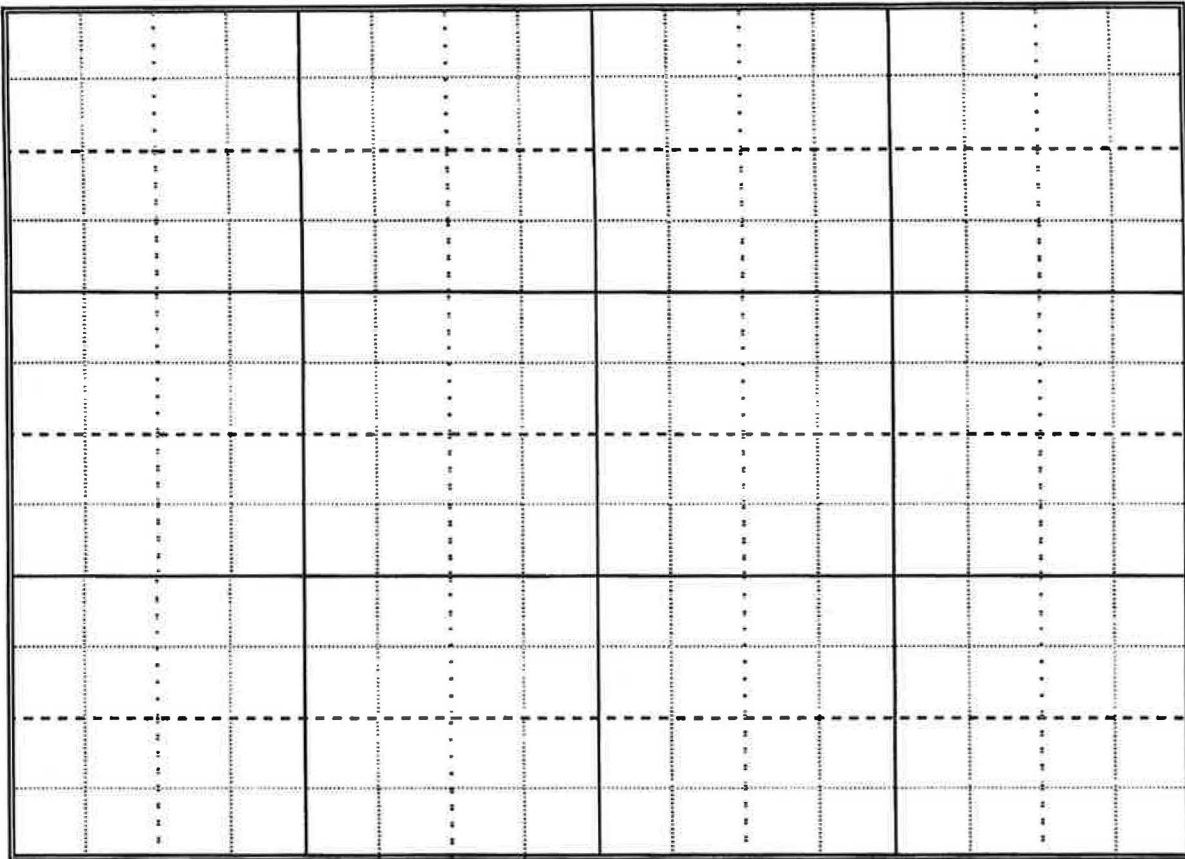
1. Point(s) of Diversion:

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
	16		SE	NE	14	35N	3W	Nez Perce	Map
	17		NE	SE	14	35N	3W	Nez Perce	Map

2. Place(s) of Use: Method of determination City of Culdesac

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
35N	3W	13							M										
		14			M	M					M	M		M	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 (Lower)	Not Available	30	Not Available	Berkley 6T30-155	
Well 2 (Upper)	Not Available	30	Not Available	Berkley 6T30-115	

*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
Well 1 (Lower)	Propeller	McCromet	Not Available		4	10-Jul-2013
Well 2 (Upper)	Propeller	McCromet	ML04-04/20180		4	11-Jan-2018

2. **Measurements:** _____

Individual: Lower: 170 gpm at 115 psi; Upper 150 gpm at 46 psi

Together: Lower: 170 gpm and Upper 155 gpm, Total = 325 gpm

E. NARRATIVE/REMARKS/COMMENTS

See Attached Memo.

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:

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

 $V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$ _____ $V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 =$ _____ $V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$ _____

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Municipal	01/01	12/31	0.39	N/A
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Totals:			0.39	N/A

2. Recommended Amendments

- ☐ Change P.D. as reflected on page 1
☐ Change P.U. as reflected on page 1

- ☐ Add P.D. as reflected on page 1
☐ Add P.U. as reflected on page 1

- ☒ None
☐ Other

I. AUTHENTICATION

Field Examiner's Signature

NECIA MAIANI

Date 09/26/2019

Reviewer _____

Date _____



Memorandum

TO: IDAHO DEPARTMENT OF WATER RESOURCES

FROM: NECIA MAIANI, P.E.

PRJ. #: 48002

SUBJECT: WATER RIGHT EXAMINATION FOR 85-15795

DATE: SEPTEMBER 20, 2019

CC: CITY OF CULDESAC

Background

The City of Culdesac has two points of diversion, as follows:

Groundwater Well 1 (Lower Well): Drilled in 1934, equipped with a 6" submersible pump (30 HP)

Groundwater Well 2 (Upper Well): Drilled in 1974, equipped with a 6" submersible pump (30 HP)

Each well is individually metered and pump to the City's Reservoir No. 1 (Upper Water Tank) which is a 100,000-gallon tank.

Refer to Attachment 1 which provides the system schematic and photos as well as a USGS Quadrangle with the points of diversion and place of use.

The City has the following municipal water rights related to these points of diversion and the municipal boundary of the City:

85-7087: Decreed 0.27 CFS

85-15795: Permit 0.39 CFS (Subject to this exam and included in Attachment 2)

Neither water right has a volume limitation.

City SCADA Monitoring and Meter Equipment

As reflected by the inventory of source meters in Attachment 3-Table 1, both of the City's wells are metered. The City utilizes propeller meters on both sources and both meters are new and/or have been calibrated within the last 7 years.

Like many water purveyors, the City utilizes a sophisticated SCADA control system to control and monitor operation of their water system. Both of the City's wells are tied into and monitored through SCADA. The master meter at each well site reports (through SCADA) the total flow pumped over the course of 24 hours as well as the corresponding flow rate for each well based on the actual hours of pumping. The City does not currently maintain historic records of daily flows. However, the City does maintain records of monthly flows at each well site. This data

was provided for the years of 2013 through 2018 and is included in Attachment 4 for information.

Field Exam

On August 30, 2019, we completed a site visit with Jason Miller from the City. Well 1 was examined first, followed by Well 2, and then both were pumped together. The data recorded is reflected in Attachment 3.

Analysis

Based on the field exam, if pumping together, the wells can produce over 320 gpm (0.71 cfs). We did not see a measurable difference in flow from each well if they were pumped individually to the system or together. This is based on the storage tank level being near full-approximately 80%.

During the field examination, we also reviewed the 24 hour well pump trend on the City's SCADA screen. A screen capture is included in Attachment 5. Based on the screen capture, it appears that the wells frequently pump together. At the beginning of a pump cycle, Well 1 produces an estimated 175 gpm while Well 2 produces 145 gpm (0.71 cfs). As shown in the screen capture, the flows level out to approximately 165-170 gpm and approximately 140-145 gpm, respectively. Thus, the SCADA reflects pumping (once stabilized) to be approximately 305-315 gpm or a total of 0.68-0.70 cfs.

Conclusion:

Based on the field examination and review of information provided by the City, the maximum flow rate produced by Well 1 and Well 2 (together) is 0.71 CFS. Considering the existing water right of 0.27 CFS and the permit for 0.39 CFS, I would recommend 0.39 CFS be licensed as the maximum diversion rate for Permit 85-15795. When combined with water right 85-7087, the maximum diversion rate should not exceed 0.66 cfs.

Qualifications

I am a certified water right examiner for the State of Idaho and a licensed professional engineer in the State of Idaho.

ATTACHMENT 1: SYSTEM SCHEMATIC, USGS QUADRANGLE, AND PHOTOS



THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
GREAT FALLS - BOZEMAN - KALISPELL
SPOKANE - IDAHO



REVISIONS
DESCR
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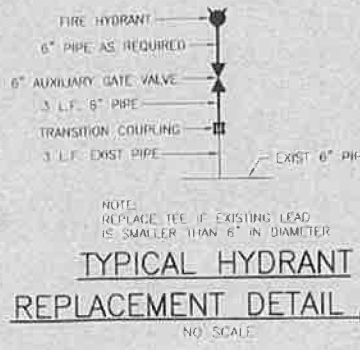
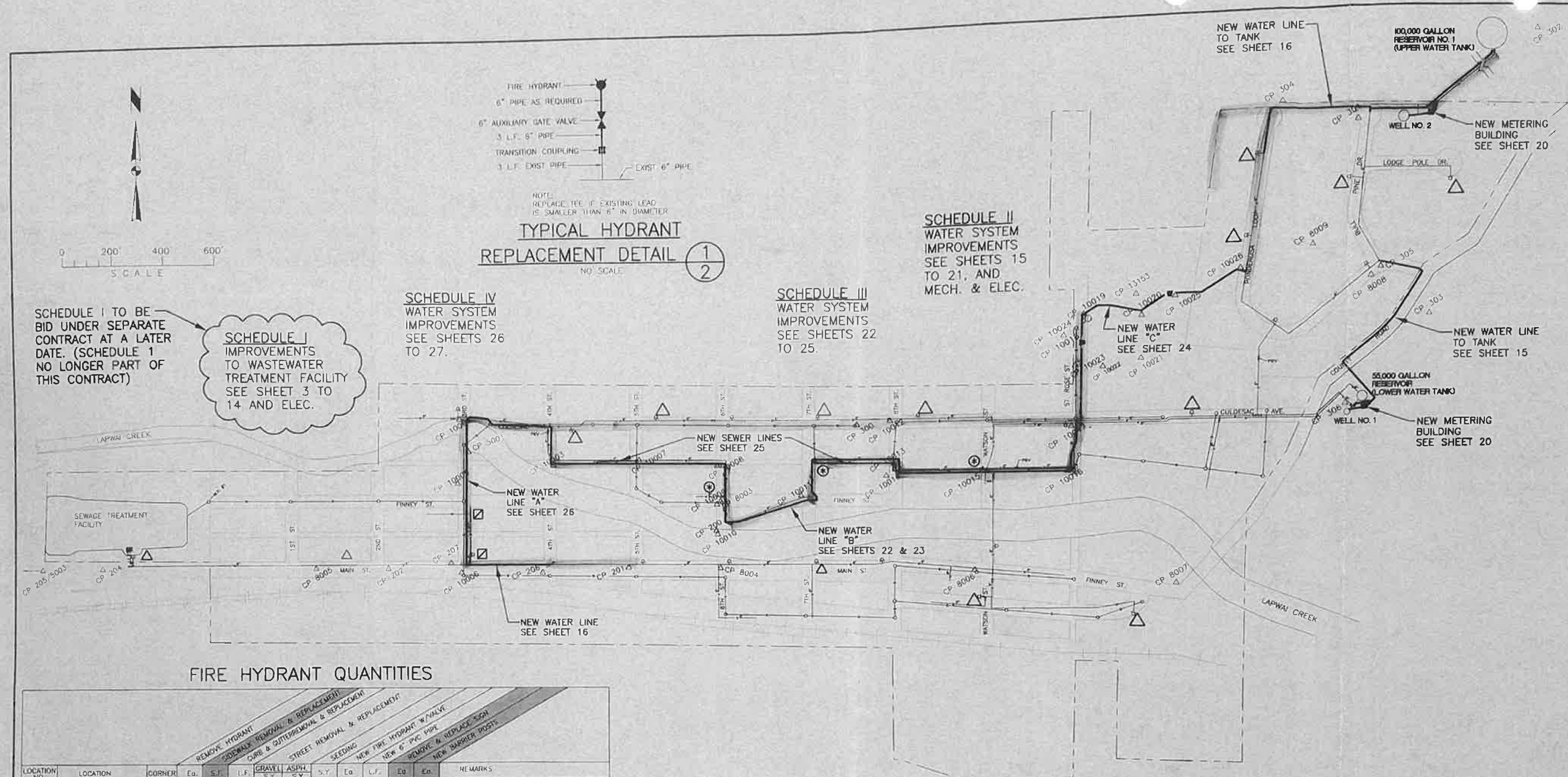
DATE
DATE
DATE

DRAWN BY: MWC
DESIGNED BY: WJD
QUALITY CHECK: SLS
DATE: 5.15.02
JOB NO. L99-028
FIELDBOOK

WASTEWATER TREATMENT AND WATER SYSTEM
CULDESAC, IDAHO

PROJECT LOCATION MAP FOR SCHEDULE I-IV,
SURVEY DATA, FIRE HYDRANT REPLACEMENT

CAD NO. L9928-02.DWG
SHEET 2 OF 27



SCHEDULE II
WATER SYSTEM
IMPROVEMENTS
SEE SHEETS 15
TO 21, AND
MECH. & ELEC.

SCHEDULE III
WATER SYSTEM
IMPROVEMENTS
SEE SHEETS 22
TO 25.

SCHEDULE IV
WATER SYSTEM
IMPROVEMENTS
SEE SHEETS 26
TO 27.

SCHEDULE I
IMPROVEMENTS
TO WASTEWATER
TREATMENT FACILITY
SEE SHEET 3 TO
14 AND ELEC.

SCHEDULE I TO BE
BID UNDER SEPARATE
CONTRACT AT A LATER
DATE. (SCHEDULE 1
NO LONGER PART OF
THIS CONTRACT)

FIRE HYDRANT QUANTITIES

LOCATION NO.	LOCATION	CORNER	Eq.	S.F.	L.F.	REMOVE HYDRANT		REMOVE HYDRANT & REPLACEMENT		REMOVE HYDRANT & REPLACEMENT		SEEDING		NEW FIRE HYDRANT W/VALVE		REMOVE & REPLACE SIGN		RE MARKS
						GRAVEL S.Y.	ASPH. S.Y.	CURB & GUTTER	REMOVE & REPLACEMENT	NEW 6" PVC PIPE	NEW 6" PVC PIPE	REMOVE & REPLACE POSTS	NEW BARRIER POSTS					
△	SCHEDULE II																	
	SEWAGE LAGOON		1					2	11	1	35							REMOVE & REPLACE BARR. WIRE FENCE
	MAIN & 7th	NE	1					5	2	1	14				1			PROTECT POLE & GUY WIRE
	MAIN & FINNEY	SE	1					20	4	1	45							
	MAIN & WATSON	NW	1					12	15	1	45							
	CULDESAC & TIFTANY	NW	1					8	3	1	15							PROTECT POLE, GUY WIRE & TELEPHONE BOX
	CULDESAC & 8th	N	1	16	10				3	1	12							REMOVE & REPLACE BUSHES & ROCK GARDEN
	CULDESAC & 7th	NE	1		10				3	2	11							REMOVE & REPLACE FLOWER POT
	CULDESAC & 5th	NE	1		10				1	3	1	12						
	CULDESAC & 4th	SE	1		10				7	1	15							
	LODGEPOLE (CULDESAC)	S	1			18			3	1	40							PROTECT BUSH & TELEPHONE BOX
	BULLPINE & LODGEPOLE	W	1			21			6	1	30							
	11th PONDEROSA	W	1			8			1	1	15							
	12th PONDEROSA	W	1			7			2	1	17							
	MAIN BETWEEN 1st & 2nd	N						5	2	1	15						2	
	TOTAL SCHEDULE II				13	16	40	94	41	38	14	341	1			7		
⊕	SCHEDULE III																	
	6th & FINNEY	NW				40			14		1	31				2		CONTRACTOR TO FIELD VERIFY
	7th (SE OF SCHOOL)	E							6	1	1	12				2		QUANTITIES FOR REMOVAL AND/OR
	WATSON (N OF CREEK)	NW						3	2	1	10			1		2		REPLACEMENT ITEMS AT THESE
	PEER LANE							6	3	1	15					1		4 NEW HYDRANTS.
	TOTAL SCHEDULE III					40		9	20	6	4	68	1			7		
☑	SCHEDULE IV																	
	MAIN & 3rd	NE	1					3	5	1	12					3		PROTECT POLE & GUY WIRE
	FINNEY & 3rd	SE	1					4	2	1	10					3		
	TOTAL SCHEDULE IV				1			7	7	2	22					6		

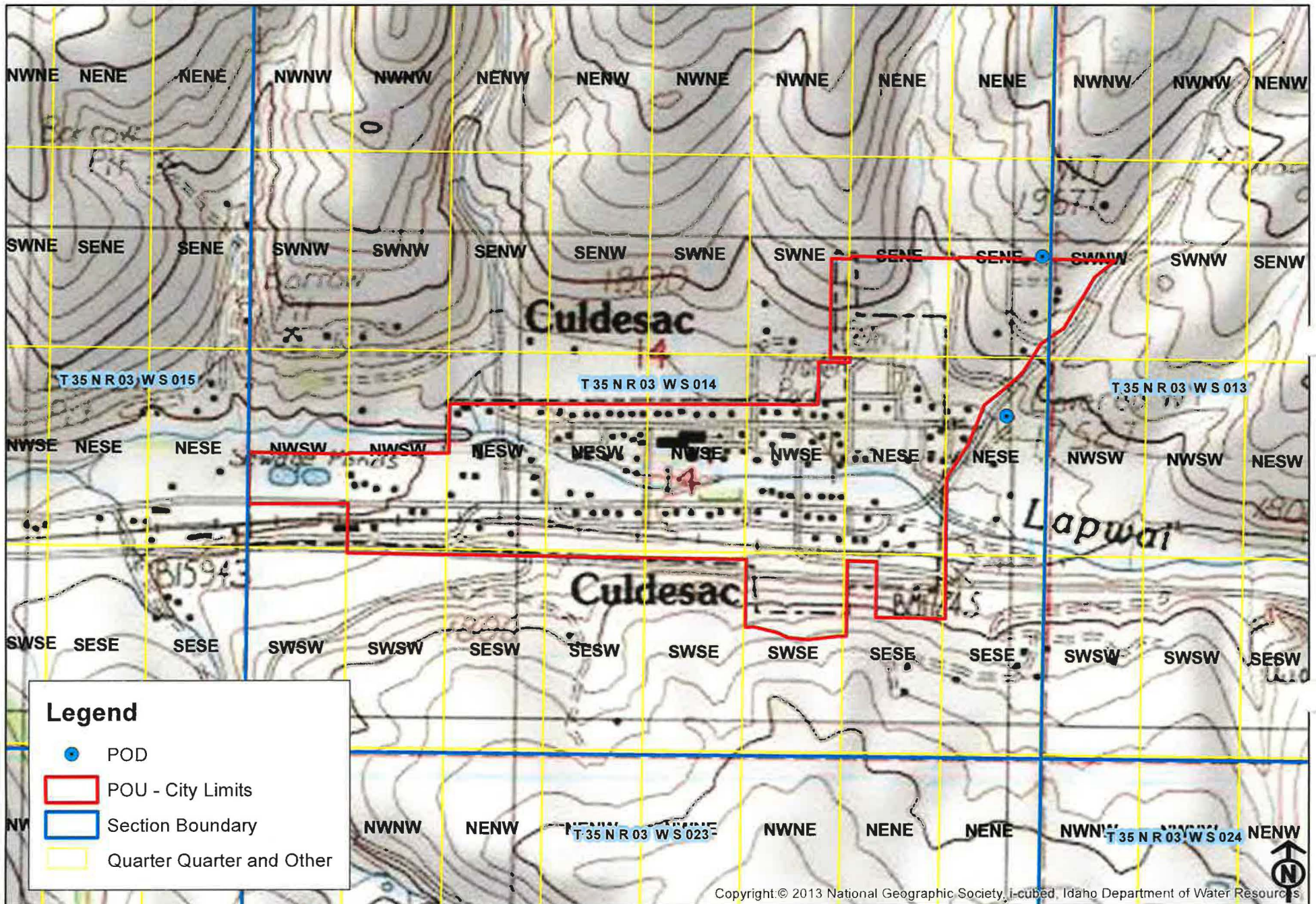
NOTE:
QUANTITIES IN SHADED COLUMNS ARE ESTIMATES ONLY AND MAY VARY.
CONTRACTOR TO FIELD VERIFY ACTUAL QUANTITIES.

SURVEY CONTROL DATA

POINT NO.	NORTHING	EASTING	ELEVATION	REMARKS
CP 200	9585.1700	9980.2130	1657.85	WEST SIDE OF 6TH ST. ±120' SOUTH OF FINNEY ST.
CP 201	9441.4050	9634.4100	1640.18	ON E MAIN ST. ±15' WEST OF 5TH ST.
CP 202	9438.4630	8688.0710	1832.09	ON E MAIN ST. ±50' EAST OF 2ND ST.
CP 204	9441.0310	7567.8680	1596.70	SOUTH SIDE MAIN ST. ±740' WEST OF 1ST ST.
CP 205	9399.2150	6881.5220	1594.15	SOUTH SIDE MAIN ST. ±1445' WEST OF 1ST ST.
CP 206	9422.5730	9295.9900	1632.37	SW CORNER OF 4TH ST. & MAIN ST.
CP 207	9461.0500	8933.4430	1827.21	NW CORNER OF 3RD ST. & MAIN ST.
CP 300	9995.0000	10532.6850	1689.78	ON E CULDESAC AVE. ±195' EAST OF 7TH ST.
CP 301	11067.2810	12365.4720	1894.42	WEST SIDE CUL-DE-SAC AT END OF BULL PINE DR.
CP 302	11385.7500	13018.8480	1985.63	±110' EAST OF UPPER WATER TANK.
CP 303	10366.3040	12640.1360	1838.75	±360' NE OF LOWER WATER TANK & ±70' EAST OF COUNTY RD.
CP 304	11139.7290	12097.8850	1860.28	±30' NE OF CUL-DE-SAC AT END OF PONDEROSA LOOP.
CP 305	10537.8510	12457.3760	1835.36	INTERSECTION OF BULL PINE DR. & PONDEROSA LOOP.
CP 306	10045.1290	12339.1670	1757.49	±30' NORTH OF WELL NO. 1.
CP 5001	9898.0805	9001.6733	1628.48	EAST SIDE OF 3RD ST. ±60' SOUTH OF BRIDGE.
CP 5003	SAME AS CP 205			
CP 8003	9700.1351	9996.7907	1665.73	INTERSECTION OF 6TH ST. & FINNEY ST.
CP 8004	9438.9557	9996.4586	1646.72	ON E MAIN ST. ±10' EAST OF 6TH ST.
CP 8005	9440.9430	8401.5406	1623.05	SOUTH SIDE MAIN ST. ±95' EAST OF 1ST ST.
CP 8006	9432.2595	10991.7950	1687.44	ON E FINNEY ST. ±10' WEST OF WATSON ST.
CP 8007	9383.6713	11738.8778	1688.28	NE CORNER OF FINNEY ST. AND COUNTY RD.
CP 8008	10506.9693	12422.0058	1830.70	SW CORNER BULL PINE DR. & PONDEROSA LOOP.
CP 8009	10874.2316	12209.9159	1839.70	±245' NW OF INTERSECTION OF PONDEROSA LOOP & BULL PINE DR.

NOTE:
CONTROL POINTS ARE EITHER REBAR OR NAIL WITH ELEVATIONS TAKE
ON TOP OF REBAR OR NAIL SET TO GROUND LEVEL.

POINT NO.	NORTHING	EASTING	ELEVATION	REMARKS
CP 10003	9842.0600	9338.8500	1650.04	EAST SIDE OF 4TH ST. ±35' NORTH OF RIVER
CP 10004	10023.7100	8967.5300	1639.40	SW CORNER OF 3RD ST. & CULDESAC AVE.
CP 10005	9771.8000	8959.8200	1624.96	WEST SIDE OF 3RD ST. ±65' NORTH OF FINNEY ST.
CP 10006	9423.5200	8973.6800	1627.16	INTERSECTION OF 3RD ST. & MAIN ST.
CP 10007	9861.7800	9876.4900	1659.43	EAST SIDE OF 5TH ST. ±180' NORTH OF FINNEY ST.
CP 10008	9838.8800	9983.4900	1667.85	WEST SIDE OF 6TH ST. ±135' NORTH OF FINNEY ST.
CP 10009	9887.8300	9982.4000	1664.83	SW CORNER OF 6TH ST. & FINNEY ST.
CP 10010	9570.7100	9984.8700	1656.00	WEST SIDE OF 6TH ST. ±135' SOUTH OF FINNEY ST.
CP 10011	9722.0600	10315.8700	1672.39	NE CORNER 7TH ST. & FINNEY ST.
CP 10012	10008.3100	10662.8100	1688.03	NW CORNER OF 8TH ST. & CULDESAC AVE.
CP 10013	9843.4400	10679.1700	1681.84	ON E 8TH ST. ±160' SOUTH OF CULDESAC AVE.
CP 10014	9797.2800	10646.9300	1681.92	WEST SIDE OF 8TH ST. ±95' NORTH OF FINNEY ST.
CP 10015	9816.4900	11021.9200	1690.19	WEST SIDE OF WATSON ST. ±185' SOUTH OF CULDESAC AVE.
CP 10016	9807.4900	11339.0500	1703.12	WEST SIDE OF ST. ROSE ST. ±195' SOUTH OF CULDESAC AVE.
CP 10017	9975.3000	11350.8800	1709.07	SW CORNER CULDESAC AVE. & ST. ROSE ST.
CP 10018	10314.9000	11320.1100	1739.75	WEST SIDE OF ST. ROSE ST. ±310' NORTH OF CULDESAC AVE.
CP 10019	10392.0100	11391.1800	1746.86	EAST SIDE OF ST. ROSE ST. ±390' NORTH OF CULDESAC AVE.
CP 10020	10382.1651	11801.3556	1752.42	±375' NORTH OF CULDESAC AVE AND ±220' EAST OF ST. ROSE ST.
CP 10021	10224.0924	11601.7374	1741.95	±220' NORTH OF CULDESAC AVE AND ±220' EAST OF ST. ROSE ST.
CP 10022	10197.1684	11463.6503	1736.85	±195' NORTH OF CULDESAC AVE AND ±80' EAST OF ST. ROSE ST.
CP 10023	10202.5996	11362.7194	1734.65	WEST SIDE OF ST. ROSE ST. ±200' NORTH OF CULDESAC AVE.
CP 10024	10314.9800	11320.1500	1739.70	WEST SIDE OF ST. ROSE ST. ±310' NORTH OF CULDESAC AVE.
CP 10025	10450.5797	11723.7200	1755.43	±445' NORTH OF CULDESAC AVE AND ±340' EAST OF ST. ROSE ST.
CP 10028	10543.3710	11954.4488	1793.32	WEST SIDE PONDEROSA LOOP ±545' SOUTH OF CENTER OF CUL-DE-SAC.
CP 13153	10461.3358	11581.1285	1756.76	±455' NORTH OF CULDESAC AVE AND ±200' EAST OF ST. ROSE ST.



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City of Culdesac Water Right Exam Map

Sources:
Idaho State Tax Commission
Basemap (see above)

PROJECT NO. 48002
DRAWN BY: AW
FILENAME: WaterRight
DATE: 9/26/19





ATTACHMENT 2:

PERMIT

9/26/2019

IDAHO DEPARTMENT OF WATER RESOURCES

Water Permit Report

WATER RIGHT NO. 85-15795

Close

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	CITY OF CULDESAC 100 6TH ST CULDESAC, ID 83524 2088435483
Attorney	CHRIS M BROMLEY MC HUGH BROMLEY PLLC 380 S 4TH ST STE 103 BOISE, ID 83702 2082870991

Priority Date: 11/28/2018

Status: Active

<u>Source</u>	<u>Tributary</u>
GROUND WATER	

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
MUNICIPAL	01/01	12/31	0.39 CFS	
Total Diversion			0.39 CFS	

Location of Point(s) of Diversion:

GROUND WATER | SENE Lt 16 | Sec. 14 | Township 35N | Range 03W | NEZ PERCE County

GROUND WATER | NESE Lt 17 | Sec. 14 | Township 35N | Range 03W | NEZ PERCE County

Place(s) of use: [Large POU Info](#)

Conditions of Approval:

1. 046 Right holder shall comply with the drilling permit requirements of Idaho Code § 42-235 and applicable Well Construction Rules of the Department.
2. 01M After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department.
3. 124 Place of use is within the service area of the City of Culdesac municipal water supply system as provided for under Idaho Law.
4. 180 A map generally depicting the service area for this water right at the time of this approval is attached to this document for illustrative purposes.
5. F06 The following rights are diverted through point(s) of diversion described above: 85-7087 & 85-15795.
6. 004 This right does not grant any right-of-way or easement across the land of another.

Dates:

Proof Due Date: 04/01/2020

Proof Made Date: 04/26/2019

Approved Date: 03/19/2019

Moratorium Expiration Date:

Enlargement Use Priority Date:

Enlargement Statute Priority Date:

Application Received Date: 11/28/2018

Protest Deadline Date: 03/11/2019

Number of Protests: 0

Field Exam Date::

Date Sent to State Off:

Date Received at State Off:

ATTACHMENT 3:

TABLE 1 EXAM DATA

				Flowmeter					System Conditions			
Date	Time of Measurement	Well	Pump Model	Type	Make	Model/Serial	Size (inch)	Last Meter Certification	End (psi)	Flow (gpm)	Tank Levels (feet)	Other Wells Operating
Operate Each Well Individually and Record Individual Flows												
8/30/2019	9:10	Lower (alone)	Berkley 6T30-155 30HP	McCrometer	Propeller	?	4	10-Jul-13	115	170	80%	N/A
8/30/2019	9:24	Upper (alone)	Berkley 6T30-11520STG 30HP	McCrometer	Propeller	ML04-04/20180106	4	11-Jan-18	46	150	80%	N/A
Operate Each Well Simultaneously and Record Individual Flows												
8/30/2019	11:12	Upper plus Lower							Not Measured	320	83%	
8/30/2019		Lower						170		Upper Well		
8/30/2019		Upper						150		Lower Well		
Total (gpm)										320		

Examiner
Representative: Jim Tucker (Welch Corner)

Total (cfs) 0.71

City Representative: Jason Miller

ATTACHMENT 4: 4-MONTHLY PRODUCTION METER INFORMATION 2013-2018

201	Upper	Lower	Total	Daily Avg.	
January	1,698,491	1,808,621	3,507,112	113,133	
February	1,527,309	1,602,214	3,129,523	111,769	
March	1,021,886	2,502,916	3,524,802	113,703	Pump out 3-19-13
April	1,317,640	2,021,721	3,339,361	111,312	
May	1,765,743	1,809,329	3,575,072	115,325	
June	1,950,696	2,019,859	3,970,555	132,352	
July	2,859,183	2,933,623	5,792,806	186,865	
August	2,841,345	2,945,560	5,786,905	186,674	
September	2,084,365	2,174,795	4,259,160	141,972	
October	1,503,070	1,511,750	3,014,820	97,252	
November	1,620,678	1,617,215	3,237,893	107,930	
December	1,919,433	1,969,917	3,889,350	125,463	
Total			47,027,359	128,842	

2014					
January	1,819,345	1,836,583	3,655,928	117,933	
February	1,676,457	1,693,279	3,369,736	120,348	
March	1,638,961	1,633,180	3,272,141	105,553	
April	1,494,994	1,473,228	2,968,222	98,941	
May	1,708,353	1,774,987	3,483,340	112,366	
June	2,010,986	2,024,959	4,035,945	134,532	
July	2,763,369	2,731,646	5,495,015	177,259	
August	2,871,697	2,876,240	5,747,937	185,417	
September	2,054,633	2,195,423	4,250,056	141,669	
October	1,749,078	1,712,438	3,461,516	111,662	
November	1,721,897	1,710,031	3,431,928	114,398	
December	1,557,833	1,529,983	3,087,816	99,607	
Total			46,259,580	126,739	

2015					
January	1,722,055	1,679,925	3,401,980	109,741	
February	1,726,718	1,734,083	3,460,801	123,600	
March	1,682,621	1,665,990	3,348,611	108,020	
April	1,603,148	1,555,808	3,158,956	105,299	
May	1,927,447	1,968,893	3,896,340	125,688	
June	2,326,420	2,395,768	4,722,188	157,406	
July	1,792,175	2,892,886	4,685,061	151,131	
August	2,897,002	2,847,270	5,744,272	185,299	
September	2,027,071	1,940,780	3,967,851	132,262	
October	1,913,027	1,741,230	3,654,257	117,879	
November	1,919,286	1,713,420	3,632,706	121,090	
December	1,981,575	1,837,910	3,819,485	123,209	
Total			47,492,508	130,116	

2016					Leap Year
January	2,085,695	1,851,170	3,936,865	126,996	
February	1,824,713	1,720,160	3,544,873	126,603	
March	1,787,226	1,566,940	3,354,166	108,199	
April	1,761,667	1,518,900	3,280,567	109,352	
May	1,630,406	1,446,340	3,076,746	99,250	
June	1,918,410	1,834,190	3,752,600	125,087	
July	2,348,827	2,212,150	4,560,977	147,128	
August	2,306,163	2,179,080	4,485,243	144,685	
September	1,855,548	1,719,870	3,575,418	119,181	
October	1,714,871	1,519,180	3,234,051	104,324	
November	1,793,638	1,548,310	3,341,948	111,398	
December	1,899,179	1,713,970	3,613,149	116,553	
Total			43,756,603	119,554	

2017					
January	2,221,689	2,073,230	4,294,919	138,546	
February	1,678,454	1,677,454	3,355,908	119,854	
March	1,833,030	1,701,590	3,534,620	114,020	
April	1,785,668	1,573,800	3,359,468	111,982	
May	1,749,939	1,717,570	3,467,509	111,855	
June	1,782,484	1,714,466	3,496,950	116,565	
July	2,680,574	2,697,420	5,377,994	173,484	
August	2,493,307	2,298,690	4,791,997	154,581	
September	1,888,368	1,669,150	3,557,518	118,584	
October	1,590,737	1,415,110	3,005,847	96,963	
November	2,790,569	280,480	3,071,049	102,368	Pump went out
December	3,326,001		3,326,001	107,290	Soft Start failed
Total			44,639,780	122,301	

2018					
January	1,844,184	1,642,500	3,486,684	112,474	
February	1,298,100	1,524,400	2,822,500	100,804	Meter Bad 20 days / Feb 28 days
March	1,191,100	1,776,300	2,967,400	95,723	From Well Houses
April	1,679,100	1,540,400	3,219,500	107,317	
May	1,841,100	1,676,200	3,517,300	113,461	
June	1,796,200	1,712,900	3,509,100	116,970	
July	2,306,200	2,720,100	5,026,300	162,139	
August	2,251,700	2,556,700	4,808,400	155,110	
September	1,576,000	1,860,600	3,436,600	114,553	
October	1,484,700	1,751,400	3,236,100	104,390	
November	1,424,900	1,686,000	3,110,900	103,697	
December	1,700,900	1,805,900	3,506,800	113,123	
Total			42,647,584	116,843	

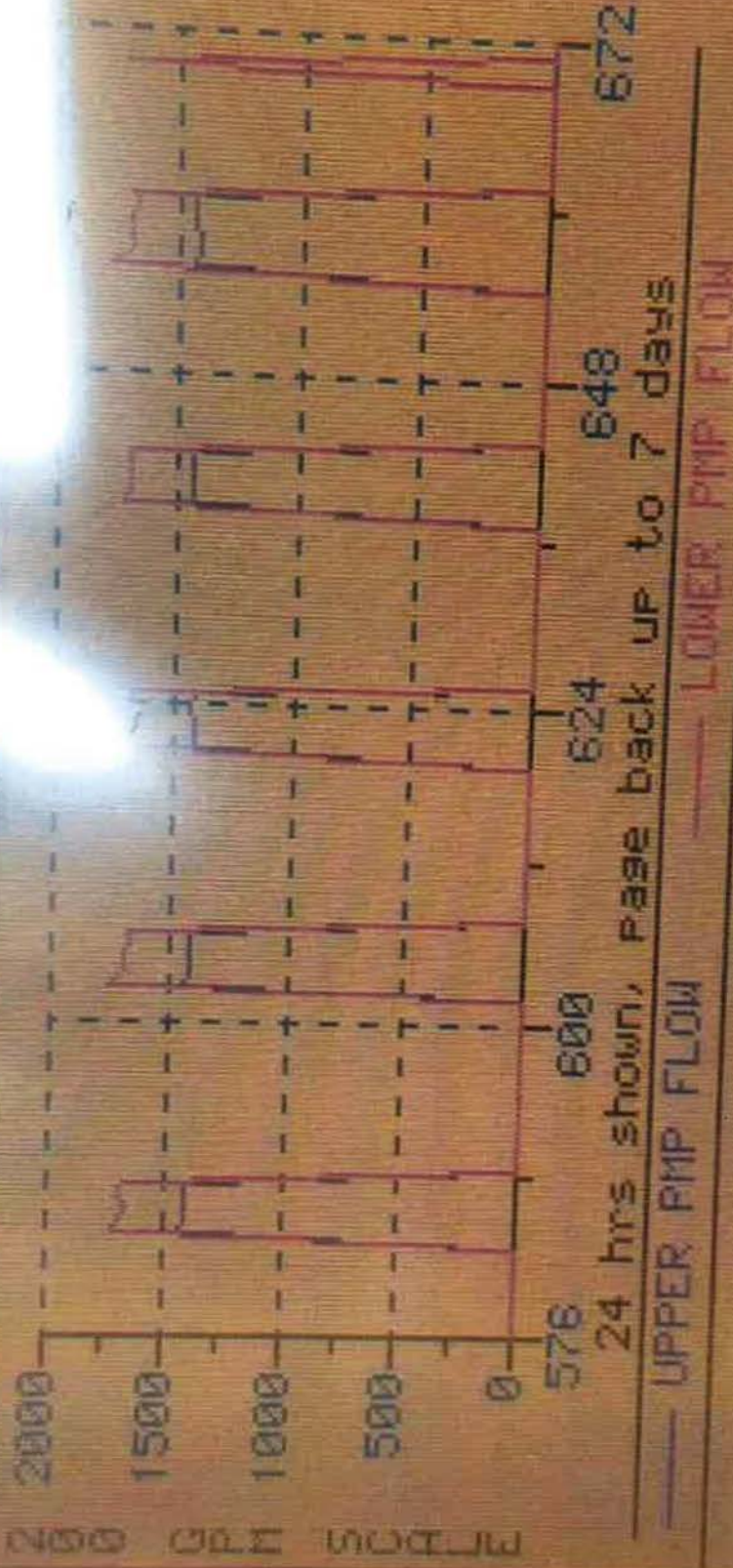
42M-48M/yr

5 year Totals		224,796,055	123,108	ADD (0.23 cfs)
Per Capita Usage			324	gallons per day per capita
Annual Volume			44,965,366	138.0 acre-feet
MDD/DR (cfs)			0.69	Peaking Factor of 3.0

ATTACHMENT 5:

SCADA SCREEN CAPTURE

8/30/2019



PUMPS FLOW 0-200 GPM

TO INFL PUMPS

Screen

09/24/04 10:00 4

TRANSMITTAL

ATTN:	WATER RIGHTS SECTION	DATE:	October 17, 2019
TO:	ID DEPT OF WATER RESOURCES	RE:	CITY OF CULDESAC
	P.O. BOX 83720		
	BOISE, ID 83720-0098	PRJ #:	48002

Items Transmitted: ☒ Mailed ☐ Delivered

Copies	Date	Description
1	10/2019	Beneficial Use Field Report

These Are Transmitted As Checked Below:

- | | | |
|--|--|---|
| ☒ For Approval | ☐ No Exceptions Taken | ☐ Rejected – See Remarks |
| ☐ For Your Use | ☐ Make Corrections Noted | ☐ Return __ Corrected Prints |
| ☐ As Requested | ☐ Revise & Resubmit | ☐ _____ |
| ☐ For Your Review & Comment | ☐ Return After Loan To Us | |

Remarks:

Enclosed is the Beneficial Use Field Report for the City of Culdesac for your review and approval.

Should you have any questions, please do not hesitate to contact our office.

Thank you!

Copy To: Chris Bromley and Carol Spencer

From: Necia Maiani, P.E.