

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATIONPermit No: 63-33836

Exam Date: 6/24/2016

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? X Y N
- a. Irrigation of 5 acres or less
 - b. Storage of up to 14.6 AF for stockwater purposes only
 - c. Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
 - d. Other < >

2. Current Owner: Name: Stanley and/or Micha Ostrowski
- Owner of Record Correct? X Y N
- Address of Record Correct? X Y N
- If No: Address

Tax lot data shows Stanley Ostrowski as the owner of the property.

3. Beneficial Use Fees have been paid: X Y N Receipt No: C0

4. SOURCE TRIBUTARY

Ground Water

Method of Determination: GIS and Taxlot Data

Change in Source: Y X N

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
63-22839	Ground Water	Domestic	Decree

Comments: Water right 63-22839 covers the home and ½ acre of yard irrigation. This permit covers the garden area, and is for additional acres. Water right 63-30210 appears to be in the same 40 acre tract, but the address on the water right and the name on the water right is associated with a property over ½ mile north and ¼ mile west of this property. The property associated with this permit is within the borders of the Wilder Irrigation District and Boise Board of Control water rights, but the owner states in the permit that they do not have canal shares.

2. Other water rights with the same point of diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
63-22839	Ground Water	Domestic	Decree

Comments: Water right 63-22839 covers the home and ½ acre of yard irrigation. This permit covers the garden area, and is for additional acres. However, both rights use the same well, so this is a direct overlapping water right to decree 63-22839. Water right 63-30210 appears to be in the same 40 acre tract, but the address on the water right and the name on the water right is associated with a property over ½ mile north and ¼ mile west of this property. The property associated with this permit is within the borders of the Wilder Irrigation District and Boise Board of Control water rights, but the owner states in the permit that they do not have canal shares. Condition F06 will need to be added to this permit.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Ground Water			SW	SE	10	3N	4W	B.M.	Canyon

Method of Determination: GIS and Tax Lot data.Change in POD? X N Amendment Required? X N **2. PLACE OF USE:** Use: Irrigation

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
3N	4W	10											0.8						0.8
		Lot #																	
Total Acres =																			0.8

Method of Determination: GIS and Tax Lot DataChange in POU? X N Amendment Required? X N Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable.

 X 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
Domestic Well	Unknown				

*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
NONE						

2. Measurements: No measurement is required for an in-house exam.

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

A theoretical calculation was used on this permit, to determine if a combined diversion rate would be reasonable for this irrigation use and the existing domestic use. The theoretical shows that a 2 Hp pump could easily supply the amount of water that is needed for this permit and water right 6322839. The pumping system shouldn't be used to limit this permit based on the in-house examination.

Theoretical shows it is reasonable to believe 0.06 cfs can be diverted from this well.

Acre Limits = 0.08 acres X 0.03 cfs per acre = 0.024 cfs

Permit allowed = 0.06 cfs

I am recommending a diversion rate of 0.02 cfs, since maximum rate per acre doesn't exceed the permitted amounts. There should be no combined diversion rate limitations for this permit, since a standard domestic pump should be able to deliver both this permit and the existing water right decree.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.8 \text{ acres} \times 4.5 = 3.6 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.02 \text{ cfs} \times 260 \times 1.9835 = 10.3 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 3.6 \text{ af}$$

2. Volume Calculations for Other Uses:

N/A

G. PURPOSE OF USEIrrigation ☒ Y ☐ N # Stock _____ Domestic # of Homes ☒ 1 _____

Other: < >

Change in Purpose of Use? ☐ Y ☐ NMethod of Determination: Taxlot data and conversations with owner.

If Yes: From Use _____ To Use _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

This permit qualifies for an in-house exam. The application states that there the property owner was going to drill a new well for this property. However, in a telephone conversation with the owner on June 23, 2016, he stated that they did not drill a new well and are using the same well he uses for the home and the yard under water right 63-22389. There shouldn't be any issues with using the domestic well, since the garden area developed under this permit uses mainly drip irrigation and has minimal flow rate requirements.

The owner supplied photos and a map of the area being irrigated under this permit in an email received on June 16, 2016. I combined those pictures into a word document and printed them out to save room in the file. The owner has shown that he is doing an excellent job of conserving water using a flow meter, and drip lines to irrigate his garden areas. The irrigation use is also set up on timers, so the 0.02 cfs allowed for the 0.08 acre recommended by this report seems reasonable for this system.

Conditions 1 (26A) and 2 (004) will not be carried over to licensing. Condition 3 (121) will be changed to condition 103 as is standard. Condition 4 (01M) will be carried forward to licensing. Condition 5 (R69) will be changed to condition X31, since the place of use for this permit is less than 1 acre of ground. Condition F06 will be added to show the domestic use for 63-22389 is diverted from the same well. No combined limitations are needed, since it appears as though the well supplies adequate water to supply both water rights.

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

I. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Irrigation	03/01 to 11/15	0.02 CFS	3.6 AF
<u>Totals:</u>		0.02 CFS	3.6 AF

2. Recommended Amendments

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

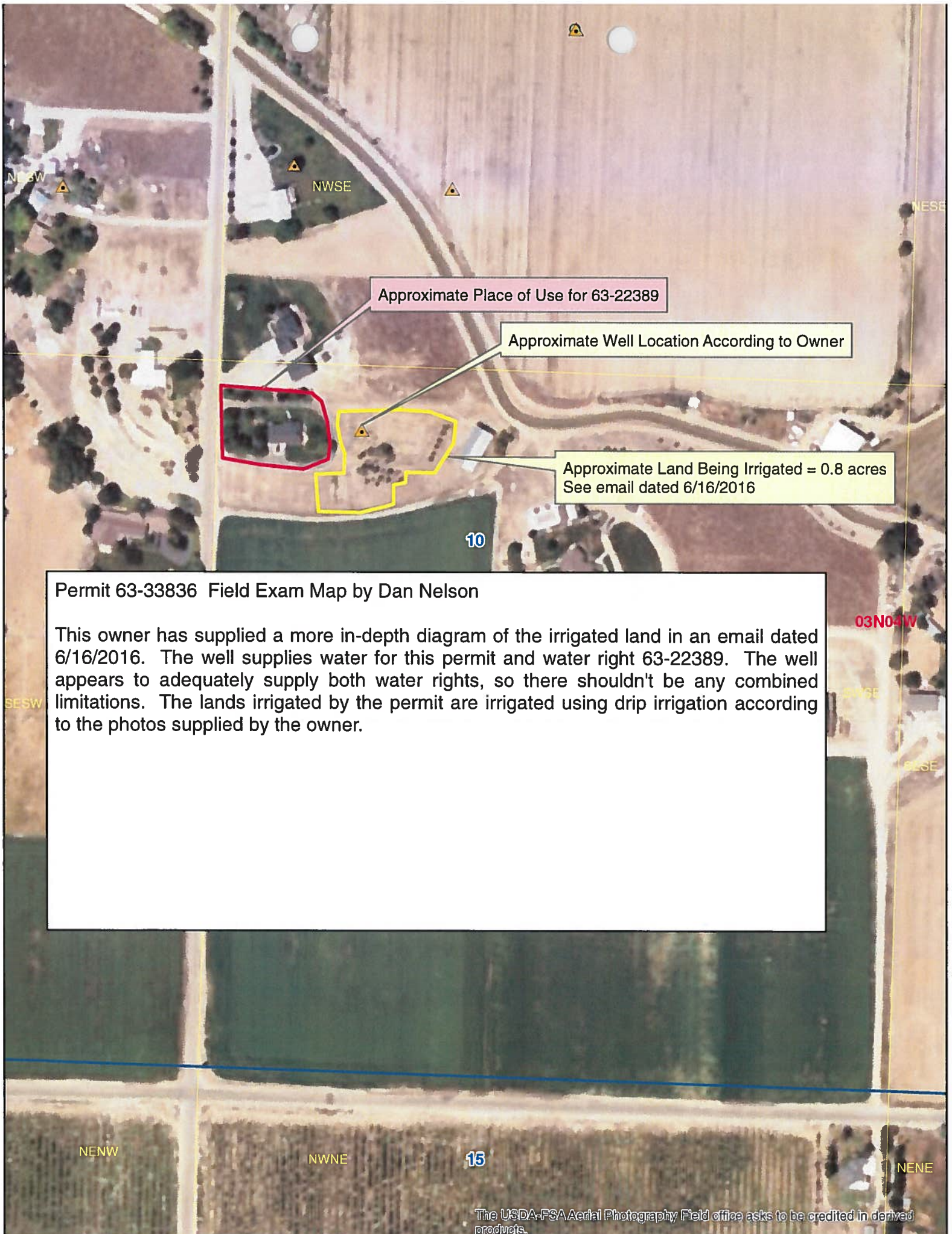
___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ None

Other: < >

J. AUTHENTICATION – DANIEL A. NELSON – STAFF HYDROLOGIST

Field Examiner's Name  Date 6-24-16

Reviewer _____ Date _____



Permit 63-33836 Field Exam Map by Dan Nelson

This owner has supplied a more in-depth diagram of the irrigated land in an email dated 6/16/2016. The well supplies water for this permit and water right 63-22389. The well appears to adequately supply both water rights, so there shouldn't be any combined limitations. The lands irrigated by the permit are irrigated using drip irrigation according to the photos supplied by the owner.

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-33836
 Reviewer: Dan Nelson
 Date of Review: 6/23/2016

P/D No.:

PUMP HORSEPOWER
 BOOSTER HORSEPOWER

PUMPING LEVEL

DISCHARGE PRESSURE

RATE OF FLOW (cfs)

Scenario 1
1.75
0
90
50
0.05
24

Scenario 2
2
0
90
50
0.06
27

Scenario 2
3
0
90
50
0.09
40

Average
 0.06
 25.22

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

There is no well driller's report for the permit holder's well. The next door neighbor drilled a well in 2008 that is 160 feet deep with a static water level of 80 feet. The neighbor's well is approximately 650 feet from the well for this permit, so I think it is reasonable to use this well to estimate the well depth and potential lift of 90 feet using the standard 10 feet below static for pumps 10 Hp or less. I used the standard domestic system pressure of 40 to 60 psi for an average of 50 psi. Using this information, I found that a 2 hp pump could supply the 0.06 cfs allowed when you combine this permit with water right 63-22839 (0.02 cfs + 0.04 cfs = 0.06 cfs).

Nelson, Dan

From: Stan Ostrowski [ostrowski.stan@gmail.com]
Sent: Thursday, June 16, 2016 12:23 PM
To: Nelson, Dan
Subject: Permit 63-33836
Attachments: WaterMeterInGallons.jpg; ChickenArea1.jpg; Distribution.jpg; GrapesandBerries1.jpg; HerbGarden1.jpg; LineofTrees.jpg; MainGarden1.jpg; MainGarden2.jpg; MainGardenIndividualRow.jpg; MainGardenRowDetail.jpg; Ostrowski.pdf; TreeDripSystem.jpg

Good Morning,

This is Stan Ostrowski - Permit 63-33836

I am attaching images of the areas you requested. I have named the files according to the area that is being watered. I also included images of the required water meter and the image you sent for me to annotate (and a Goggle image of the area.

The entire system is a drip system, with trees and berries watered individually. The main garden is on a drip line, and each row can be shut off, making it easy to water individual rows only when required. The herb garden and grain areas are low-flow mist systems with some drip line to prevent watering outside of the area boundaries.

If you need additional images, or specific area details, please let me know, as I really was not sure what I should include. Also, I reduced the file size so there would (hopefully) be no problems emailing them. If you would like better quality images, I will send them.

As for the pump size - I have tried to find out this information, but cannot find out who installed the system or when it was installed. The previous home owner had no idea either, and he lived here for 12 years (we have been here 3).

Thank you, and have a great day,

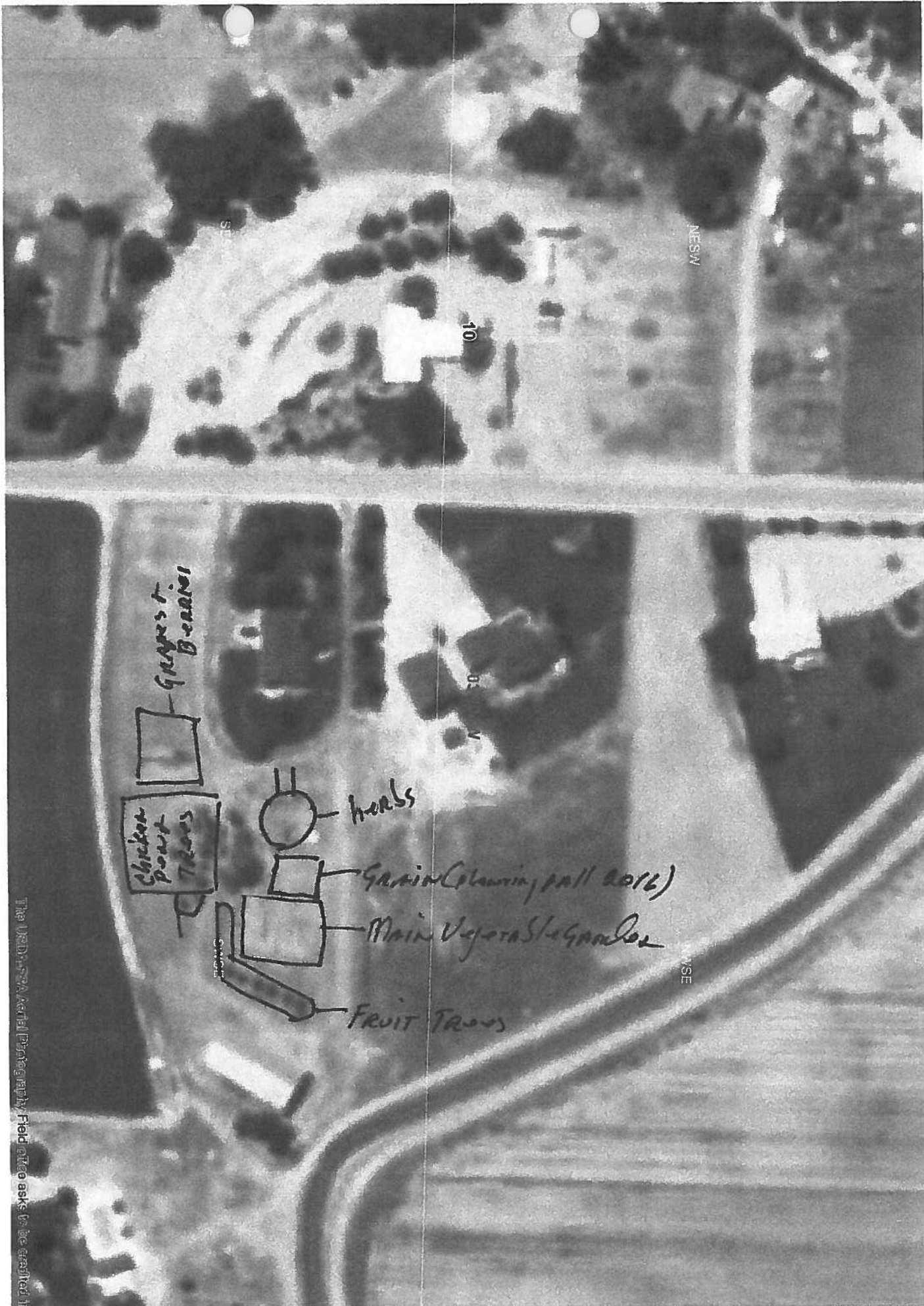
Stan Ostrowski
208-907-2943



Google earth

feet
meters





The USDA's National Photography Field office is to be credited in

PHOTOGRAPHER AND DATE OF PHOTOS Stan Ostrowski Sent these Pictures on 6/16/2016 by email

FILE NUMBER 63-33836



Water Meter In Gallons



Distribution



Grapes and Berries



Herb Garden



Line of Trees



Tree Drip System

PHOTOGRAPHER AND DATE OF PHOTOS Stan Ostrowski Sent these Pictures on 6/16/2016 by email

FILE NUMBER 63-33836



Main Garden



Main Garden



Main Garden Individual Row



Main Garden Row Detail

Nelson, Dan

From: Nelson, Dan
Sent: Monday, June 13, 2016 11:40 AM
To: 'Stan Ostrowski'
Subject: RE: Permit 63-33836

Mr. Ostrowski,

Whatever method works best for you will work for us. Both methods are acceptable. I have found that it may take a couple of emails to send pictures due to memory issues. If you do email them, please send an email letting me know that you sent them, so I can confirm that they made it through the system. I have sent pictures in the past that got lost in the cyber world, and we could never find out what happened.

Thank you so much for your response. Once I get the pictures, I will complete the processing of your permit as soon as possible.

Daniel Nelson
Staff Hydrologist
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

From: Stan Ostrowski [<mailto:ostrowski.stan@gmail.com>]
Sent: Monday, June 13, 2016 11:03 AM
To: Nelson, Dan
Subject: Re: Permit 63-33836

Good Morning,

Thank you for your reply and information concerning out permit.

I have pictures and have marked on the map the areas that we are irrigating for out gardens. Would you like me to scan and email them to you. or send them in the mail?

Thank you again,

Stan Ostrowski

On Wed, Jun 8, 2016 at 11:12 AM, Nelson, Dan <Dan.Nelson@idwr.idaho.gov> wrote:

Mr. and Ms. Ostrowski;

I apologize, but I forgot to attach the map to my earlier email.

Here is the map.

Dan Nelson

From: Nelson, Dan
Sent: Wednesday, June 08, 2016 11:11 AM
To: 'Ostrowski.Stan@gmail.com'
Subject: Permit 63-33836

Dear Mr. and Ms. Ostrowski;

Our office received your proof of beneficial use statement on May 23, 2016 for permit 63-33836. This permit allowed you to develop up to 1.7 acres of irrigation to be diverted from a ground water well. The permit is small enough, that with a little assistance from you, we can verify the water use without actually visiting the site, unless you wish to have someone meet with you on sight to verify the water use.

I have been asked to review this permit to verify the water use so it can be licensed. The aerial photos that we have available to our office don't show any significant irrigation. However, your application for permit does state that you use the water for gardens and fruit trees, which wouldn't show up very well in the aerial photos. I have attached a map that shows you what we are seeing in our aerial photos.

In order to avoid coming to your property to verify the water use, I would like to ask if you could mark on the map the areas being irrigated, and supply current pictures showing the areas being irrigated. If you happen to know the horse power of your well pump, that information would also be useful.

I will hold off any further processing of this permit for a couple of weeks to wait to hear back from you. If I don't hear back from you by July 6, 2016, we may set this permit aside until someone from the Department has time to schedule a day they can meet with you. Another option is that if I am in the area, I may drive by your property and take some pictures to verify the use. If I do get an opportunity to drive by your property, I will contact you and let you know what I have found before I move forward with licensing.

My goal is to license your permit as quickly and accurately as possible, but I do want you to be comfortable and fully understand the process, so please don't hesitate to contact me if you have any questions or concerns.

Thank you for your time and efforts.

Respectfully,

Daniel Nelson

Staff Hydrologist

Idaho Department of Water Resources

Telephone [\(208\) 287-4856](tel:(208)287-4856)

Fax [\(208\) 287-6700](tel:(208)287-6700) (attn: Dan Nelson)

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"Necessity is the plea for every infringement of human freedom. It is the argument of tyrants; it is the creed of slaves" --- William Pitt the Younger (1783)

"The price of freedom is the willingness to do sudden battle anywhere, any time and with utter recklessness." -- Robert A. Heinlein