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DEPARTMENT OF
WATER RESOURCES

January 19, 2006

IDWR

To: Misty Mount

RE: Claim Number 2-4006B

Misty,

I've tried to include all the information you and the Department needs to go forward this claim. If for any reason you need more please get in contact with me. I'll do what ever is necessary to make sure I get the water needed to beneficially water my property.

I have included the following;

Page 1= This letter

2= Irrigation rate page 2

3= Arial view of property

4= USDA-Soil Conservation drawing with design notes and equations.

5= Pasture Sprinkler System

6= Sprinkler Use Upper Pasture

7= Orchard-Garden-Holding Pen

8= Question 11 of Questionnaire (History of Property)

9= Question 13 of Questionnaire (Comments)

Thank you,



Gardner I Brown

208-573-4419 (Cell)

208-366-2243 (Work)

208-366-2015 (Home)

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WATER RESOURCES

IRRIGATION FLOW RATE QUESTIONNAIRE

THIS INFORMATION IS REQUIRED FOR ANY ADJUDICATION CLAIM(S) FOR WHICH THE IRRIGATION FLOW RATE CLAIMED IS MORE THAN 0.02 CFS PER ACRE (ONE EXCEPTION IS THAT 0.03 CFS PER ACRE MAY BE ALLOWED FOR IRRIGATION OF UP TO 5 ACRES).

CLAIM NO(S). 02-4006B
 NAME GARDNER I. BROWN
 ADDRESS 760 S BLUE Heron Ln P.O. Box 145 Glenns Ferry
 PHONE 208-366-2015 or 208-366-2243 or 573-4419

1. TOTAL IRRIGATED ACRES SHOWN ON CLAIM(S) REFERENCED ABOVE ~~18~~ 18 ACRES.

2. SHOW THE NUMBER OF ACRES OF CROPS GROWN FOR YOUR IRRIGATION SYSTEM(S) DURING A TYPICAL SEASON

	Border	Furrow	Corrugation	Sprinkler	Contour Ditch	Other
Alfalfa						
Beans						
Field Corn						
Silage						
Spring Grain						
Winter Wheat						
Orchard <u>GARDENS</u>						
Pasture - <u>COW</u>				<u>15</u>		
Potatoes						
Sugar Beets						
Other <u>HOT SALT PEGS</u>				<u>2</u>		

PLEASE COMPLETE ITEMS 3 THROUGH 8 FOR EACH OF THE IRRIGATION SYSTEM TYPES SPECIFIED ABOVE



Gardner I. Brown Property Water Right 02-4006B

Purple: Horse and Emu Pasture, 2 acres, Handlines

Green: Orchard, gardens, Holding Pen (Spring Planting), 1 acre, Rainbird 30's

Brown: Pasture, 15 acres, Nelson 100's and Rainbird 85's for 55 head cattle.

Yellow: Diversion Point

Soil Type: Pasture; Lankbush (90)
Hillside; Buko (22)



PASTURE SPRINKLER SYSTEM

The system consists of a 15 hp motor with a Barkley pump. It pulls water out of a sistern in a 6" pipe. It goes out of the pump into a 8" pipe for 35' then reduces to a 6" pipe. It then sweeps into the 6" main line. The laterals are 3" and then 2' risers pop up to hook the Nelson 100's to. There are a total of 52 risers through out the pasture. The Nelson 100's have .6 nozzles which put out 74 gpm's at 50 psi. The spacing on these big guns are 135'x 110' staggered. I run at about 55 psi which is about 81 gpm with a radius of about 120'-130' I run Nelson 85 adjustable small guns on the borders of the pasture. They have 3/8 nozzles that put out 27gpm of water.

After installing the flow meter I now know what combinations of guns to use. ie; 4 big guns put out the 36"(That is what the water right says I have). If I need to water with the small guns than I put out 3 big guns and 3 small guns which equal 36". If I'm needing to water the upper pasture I put out 3 big guns (lower pasture) and one handline (upper pasture) which equals 34" I make sure I don't go over the 36" water right. My father was told by Riverside Irrigation Co. that as long as the pressure didn't go below 50 psi he could run more guns. He ran 5 big and 4 small guns not knowing he was using too much water.

The pressure goes down somewhat the farther I get from the pump which means I can use 1 more small rain bird to water the garden with.

I do have a 1.5 hp pump in the pump house that I can use if I need to water the gardens or use just a handline. It put out such a small amount of flow that the meter doesn't measure it..

**SPRINKLER USE
UPPER HORSE AND EMU PASTURE
(HAND LINES)**

AVERAGE NOZZLE FLOW=4.5 GPM

NOZZLE SPACING= 40'

**LATERAL LENGTH= 1225'
USING 3 LINES TOTAL**

**LATERAL SPACING= 0'
3 LINES=
1s=320', 2nd= 720', 3rd= 160'
THE THREE TOTAL IS= 1225'**

NUMBER OF LATERALS PER SET= 1

**SET TIMES= RUN 1 SETS A DAY
6 HRS (APR-JUN)
8 HRS (JULY-AUG)
7 HRS (SEPT- OCT)**

**FREQUENCY=4-5-6 DAYS DEPENDING ON HOW DRY THE PASTURE GETS.
I WATER THE TOP PASTURE ONLY WHEN I'M WATERING LOWER PASTURE.**

**THIS SPRINKLER USE IS ON THE HILL SIDE THAT DRIES OUT FASTER THAN
THE COW PASTURE DOES. (THE HORSE AND EMU USE THIS FOR FEED.)
THIS PASTURE RUNS EAST AND WEST. I HAVE 3 SEPARATE HANDLINES TO
WATER THIS WITH. I ONLY RUN 1 AT A TIME.**

**SOIL CLASS ACCORDING TO USDA FOR THIS PASTURE IS BUKO(22), LIGHT
BROWN IN COLOR , FINE SANDY LOAM, AND WELL DRAINED**

ORCHARD-GARDEN-HOLDING PEN WATERING

HOLDING PENS

I USE RAILBIRD #30 SPRINKLERS IN THE HOLDING PENS. I PLANT IT IN SPRING AND USE IT HAS FEED FOR ANY ANIMAL THAT NEEDS TO BE PINNED UP FOR VET VISITS, ECT.

**I WATER IT WHEN I WATER THE COW PASTURE.
NOZZLE SIZE IS 3/16 PER SPRINKLER. (approx.5/8")**

I RUN 3HRS/4HRS THEN CHANGE TO ANOTHER SPRINKLER TELL THE PENS ARE WATERED. I DO THIS ON A AVERAGE OF 2-3 TIMES A WEEK.

NOZZLE SPACING IS APPROX. 30' HAVING A TOTAL OF 3.

GARDENS

HAVE BOTH VEGETABLE AND 2HERB GARDENS

THESE GARDENS ARE FOR BOTH PERSONAL USE AND ALSO FOR THE LOCAL FARMERS MARKET.

AVERAGE NOZZLE IS 9/64 IN A SMALL RAIN BIRD. IT IS OVERHEAD WATERING USING 2-3 RAILBIRDS HOOKED TO A STAND PIPE AND A GARDEN HOSE. TOTAL OF 3 FOR BOTH GARDENS.

ON AVERAGE I WATER 2-3 TIMES FOR 6 HRS THEN MOVE TO A NEW LOCATION EVERY WEEK DEPENDING ON TEMP AND SOIL CONDITION.

ORCHARD

THIS ORCHARD HAS VARIOUS FRUIT TREES AND GRAPE VINES. IT HAS ORCHARD GRASS ALSO THAT GETS WATERED WITH 2 RAINBIRDS ON STAND PIPES AND HOSES. IT IS WATERED 2-3 TIMES A WEEK BUT ONLY WHEN TEMP AND SOIL CONDITIONS REQUIRE .

NOZZLE SIZE IS 11/64 PUTTING OUT APPROX. 5/8 INCH. I WATER 3-4 HRS THEN MOVE TO A NEW LOCATION.

I HAVE A 1.5 HP PUMP IN THE PUMP HOUSE TO USE JUST FOR THE GARDENS IF I NEED TO WATER THEM AND NOT THE PASTURES. THIS DOESN'T HAPPEN VERY OFTEN. BUT IF I NEED TO I CAN.

SOIL TYPE

IN 1979 THE USDA SOIL SERVICE SAID THE SOIL WAS A TRUSDALE (161) TYPE.

IN 1991 THE USDA SOIL SURVEY SHOWED IT AS A LANKBUSH (90) TYPE

11. Have you changed your irrigation system for the historically used?

YES.

1920-1960 a gas powered pump was used to flood the pastures.
(Upper and lower.)

1960-1970 Changed to a 20 hp electric pump to flood lower pasture.
Stopped watering upper pasture with the top
diversion box because the city did sewer line work and it
broke up the flood runs.
Started spot watering on upper pasture with garden hoses
and small gas pump getting water out of lower diversion
box.

1979 The USDA Soil Conservation Department designed a
system using Nelson 100's guns and Nelson 85's to water
the lower pasture.

1980 Riverside Irrigation Co (Glenns Ferry) installed the
system the USDA designed. Started watering the
gardens and upper pastures with hoses connected to lower
pastures 2" risers.

1995 Installed a Peak Electronic meter to measure the output rate that
was being used at any one time. This information gave me the
amount I was using on any given set. Because of this I changed
from 5 guns to 4 and from 4 to 3 small when watering the lower
pasture. When watering the gardens I have to cut off on small
sprinkler to keep under my right.

1997 I installed a timer on the pump so I could water for just a given
time period. As it was the pump ran till I turned it off, some
times 12 hrs or 14 hrs etc. I could now water for shorter times.

From 1997 till now I water only when it is necessary. In April I
run 6hr sets. Then in July I switch to 7 hr sets. Then I go to 8 hr
sets when the pastures start to dry out faster because of the
summer temperatures. Then in Sept or so I go back to 7 hr sets
because it is cooling down.

13. **Comments-** In all the paperwork from IDWR on this water right it states that this land requires 2" diversion rate per acre to grow a crop because of the soil type. (I still have the 20hp motor and pump that was put in use 1960. The paperwork (IDWR) I've seen says that pump was putting out about 95", which is 855 gpm, to flood the pastures with. The name plate on the pumps states it will pump 400 gpm. That was using too much water). I have always understood the importance of water. My father understood this also, that is why he spent the money so this property could be watered the best with using just what we are entitled to. The soil has not changed its characteristics. The only thing that changed was the name of the soil, but the amount of water needed is still the same. I keep a very close eye on how much and how often I water. If anything can be said for my watering style is that I don't water enough to get more growth.