

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-14442

Exam Date: 8/26/2010

1. **Current Owner:** WEISER SCHOOL DISTRICT #431
925 PIONEER RD
WEISER ID 83672-1146
(208) 414-0616
2. **Accompanied by:** Jim Reed, Superintendent of Weiser School Dist. 431 (208) 414-0616, Omar Carnig, Maintenance and Frank Martell (208) 550-0916.
Address: 925 Pioneer Rd., Weiser, ID 83672
Physical Address of POD/POU: Weiser High School, 690 W Indianhead Rd, Weiser, ID 83672 (at the northwest football field)
Relationship to Permit Holder: Jim Reed, Superintendent of Weiser School Dist 431/contact person

3. SOURCE**TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NONE; On ArcMap it shows overlapping water rights for the same POU, but they are for Crain Creek Reservoir, and Institute Canal Irrigation. Weiser School District #431 does not have any shares or supplemental water for irrigation for this same POU. They do have shares for property to the south. At one time they did have ditches and a gravity flow irrigation system from surface water on this POU, but the Public School Policy required that the open ditch system be covered up and eliminated for safety reasons.
2. Other water rights with the same point of diversion: NONE

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

GROUND WATER

SW1/4NE1/4

Sec. 30, Twp 11N, Rge 05W, B.M.

WASHINGTON County

Method of Determination: GARMIN GPS

2.

PLACE OF 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	
11N 05W 30	1.8	3.4	2.8	1.0													9.0

Total Acres: 9

Method of Determination:

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.

Well or DiversionID No.*Motor MakeHpMotor Serial No.Pump MakePump Serial No. or Discharge Size

A0018768

Sta-Rite

5.5

3" reducing to 2"PVC main

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

D. FLOW MEASUREMENTS/CALCULATIONS**Measurements:**

(1) Theoretical Rate of Flow = $(8.8) \times (5.5 \text{ Hp}) \times (0.7 \text{ eff}) / (43 \text{ ft}) + (2.31 \times 50 \text{ psi}) = \mathbf{0.21 \text{ cfs System Capacity}}$

(2) Physical Nozzle Measurements from zone with 12 2045A Maxi Paw pop-up nozzles (equivalent to Nelson 10 low angle nozzles w/13 degree trajectory) at average 50 psi. Information from Nelson Pro 600 series gear drive sprinklers spreadsheet shows each nozzle at 7.3 gpm. $\mathbf{12 \times 7.3 \text{ gpm/nozzle} = 87.6 \text{ gpm} \times 0.00223 = 0.19 \text{ cfs}}$

E. VOLUME CALCULATIONS

Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 9.0 \text{ acres} \times 4.5 = 40.5 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.18 \times 260 \times 1.9835 = 92.8 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 40.5 \text{ af}$$

F. NARRATIVE/REMARKS/COMMENTS

System Description: 6" casing, 97 ft deep, static 33 ft, 5.5 Hp StaRite submersible pump, 3-inch discharge that reduces to buried 2-inch schedule 40 PVC, reducing to 1-inch PVC to the 18 zones. The zones run 7 thru 12 Model 2045A Maxi Paw nozzles (equivalent to Nelson 10 nozzles), that run at 50 psi.

*****Season of Use** on the approved Permit is for 4/1 – 10/31. ArcMap shows the Administrative Area to have a Season of Use as: 3/1 – 11/15 (IDWRs Standard). The Season of Use will be changed to match IDWRs standard.

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

G. 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	0.180 CFS	40.50 AF
	<u>Totals:</u>	0.180 CFS	40.50 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 ☐ Other

***With Licensing, the Season of Use will be changed to match the current IDWR standards (which does not require an amendment).

I. AUTHENTICATION

Field Examiner's Name Sandy Hemminger Date 9/15/2010
Reviewer _____ Date _____

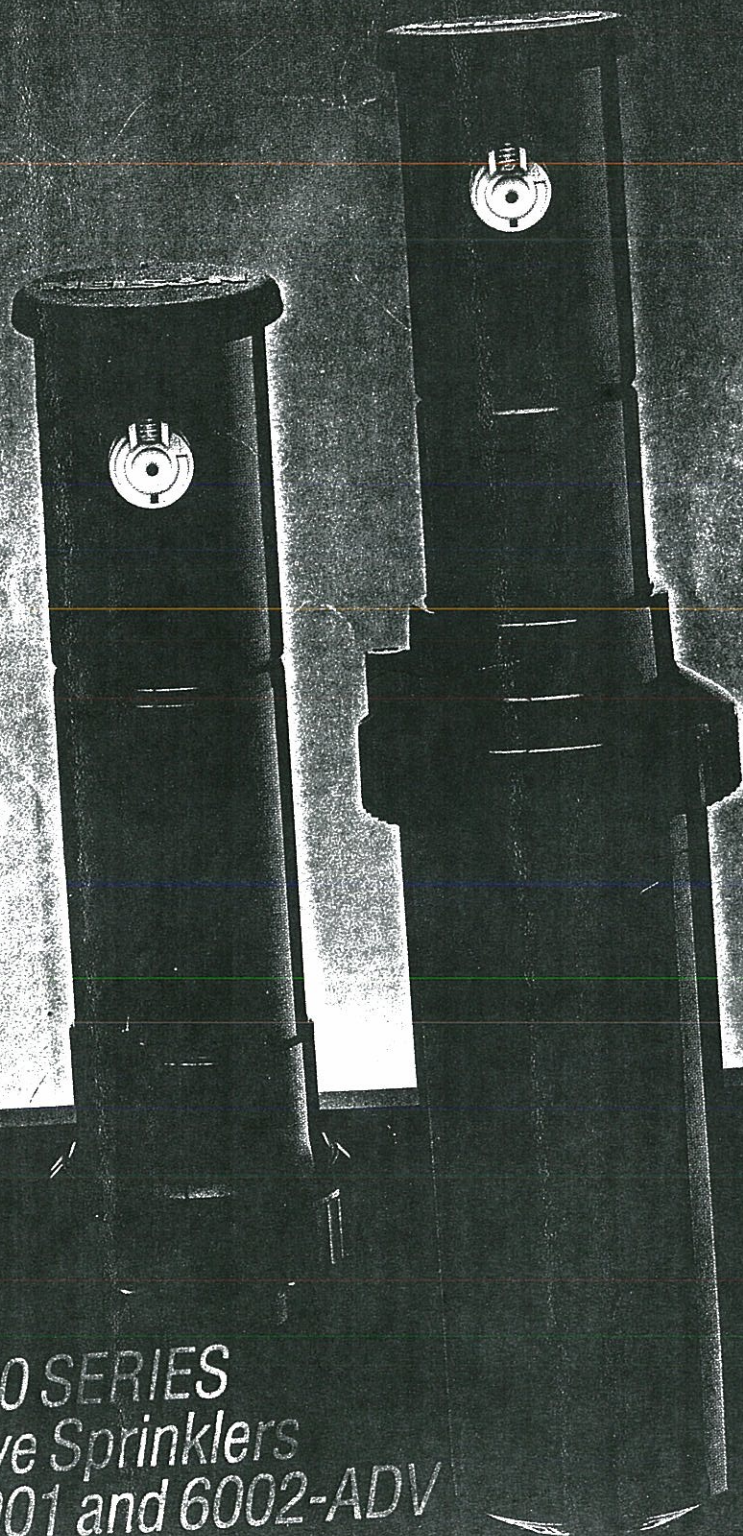


POU - irrigation
18 zones
- runs 7-12 nozzles
at one time
- Model 2043A
Maxi Power
equivalent to
Nelson 10 nozzle
- 50 psi

POD

fence

NELSON



Nelson
PRO 6000 SERIES
Gear Drive Sprinklers
6000, 6001 and 6002-ADV

*Sprinkler
system*

TYPE - IMPACT GEAR DRIVE

Performance Data Standard Nozzles - 25-Degree Trajectory

Nozzle Number	PSI	Radius	GPM	Nozzle Number	PSI	Radius	GPM
 1	30	28'	.5	 7	30	36'	2.6
	40	29'	.6		40	40'	3.0
	50	29'	.7		50	42'	3.4
	60	30'	.8		60	42'	3.7
 2	30	29'	.7	 8	30	37'	3.2
	40	30'	.8		40	40'	3.7
	50	30'	.9		50	43'	4.2
	60	31'	1.0		60	44'	4.6
 3	30	30'	.9	 9	30	38'	4.2
	40	31'	1.0		40	43'	4.9
	50	31'	1.2		50	46'	5.5
	60	32'	1.3		60	47'	6.0
 4	30	32'	1.2	 10	40	45'	6.0
	40	33'	1.4		50	48'	6.8
	50	34'	1.6		60	49'	7.6
	60	34'	1.8		70	51'	8.2
 5	30	34'	1.6	 11	40	46'	8.0
	40	36'	1.8		50	48'	8.9
	50	38'	2.0		60	50'	9.8
	60	38'	2.2		70	51'	10.5
 6	30	36'	2.0	 12	40	46'	11.4
	40	38'	2.4		50	48'	12.2
	50	40'	2.7		60	50'	13.2
	60	40'	2.9		70	52'	14.4

Data represents test results in zero wind. Adjust for local conditions.
Optimum distribution efficiency is at 50 PSI.
Radius can be reduced by up to 30% with nozzle retaining screw.

Low Angle Nozzles - 13-Degree Trajectory

Nozzle Number	PSI	Radius	GPM	Nozzle Number	PSI	Radius	GPM
 4	30	22'	1.4	 8	30	31'	3.4
	40	24'	1.7		40	34'	3.9
	50	26'	1.8		50	37'	4.4
	60	28'	2.0		60	38'	4.7
 5	30	25'	1.6	 9	30	33'	4.3
	40	27'	1.9		40	37'	5.0
	50	28'	2.1		50	40'	5.6
	60	30'	2.3		60	42'	6.1
 6	30	27'	2.1	 10	40	38'	6.5
	40	30'	2.5		50	40'	7.3
	50	33'	2.8		60	42'	8.0
	60	35'	3.0		70	44'	8.6
 7	30	29'	2.8	 P	Blank nozzle plug for turning off selected sprinklers during repairs, maintenance, etc.		
	40	32'	3.1				
	50	35'	3.5				
	60	37'	3.8				

Data represents test results in zero wind. Adjust for local conditions.
Optimum distribution efficiency is at 50 PSI.
Radius can be reduced by up to 30% with nozzle retaining screw.

Matched Precipitation GPM at 50 PSI

Square Spacing	90° Nozzle No.	90° GPM	180° Nozzle No.	180° GPM	360° Nozzle No.	360° GPM
25'	1	.7	3	1.2	6	2.7
30'	2	.9	5	2.0	8	4.2
35'	3	1.2	6	2.7	9	5.5
40'	4	1.6	7	3.4	10	6.8
45'	5	2.0	8	4.2	11	8.9

When the arc/nozzle combinations are spaced as indicated, the precipitation rate will be approximately .4"/hr. at 50 PSI.

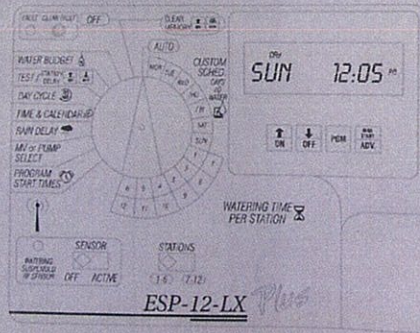


POD
6" casing
97' deep
33' stat





Installation, Programming, & Operation Guide ESP-LX+ and ESP-LXi+



Indoor / Outdoor Models

ESP-6LX+ ESP-16LX+
ESP-8LX+ ESP-20LX+
ESP-12LX+ ESP-24LX+

Indoor Models

ESP-8LXi+
ESP-12LXi+
ESP-16LXi+

Rain Bird Sales, Inc. - Turf Products
970 W. Sierra Madre, Azusa, CA 91702
www.rainbird.com

08/26/2010

P/N 634415-D

Control
for the
1830n



67-14442 Weiser School District #431

S. Hemenway



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