

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-12333
Exam Date: 05/07/2019

1. Current Owner:
DARLING INTERNATIONAL INC 18305 S COLE RD KUNA ID 83634
2. Accompanied by: Tom Johnson
Phone No: 208-344-8319
Address:
Relationship to permit Holder: General manager

3. **SOURCE:**
GROUND WATER

Method of Determination: Site visit

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap
63-7980 GROUNDWATER IRRIGATION (1 acre)

Comments: _____

2. Other water rights with the same point-of-diversion: YES Overlap
63-7980 GROUNDWATER IRRIGATION (1 acre)

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER NE¼ SE¼, Sec. 12, Twp 01N, Rge 01E, B.M. ADA County

Method of Determination: GPS, well driller's report, digital PLS map

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01N	01E	12		3.3	35	14									2.4				54.7

Total Acres: 54.7

Method of Determination: Aerial imagery, digital PLS map

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 Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0001627		60			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Flow Meter	In-Line	McCrometer				

2. Measurements:

360 (0.8 cfs) gpm on flowmeter during exam running wheel line and pivot.

E. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method:

Theoretical:

$$Q = \frac{8.8 \times 0.7 \times 60 \text{ hp}}{300 \text{ ft} + 2.31 \times 50} = 0.90 \text{ cfs}$$

Measured: **0.80 cfs**BU Standard: 54.7 acres x 0.02 cfs/acre = **1.09 cfs**Exam Fee: **2.00 cfs**Recommend: **0.80 cfs****F. VOLUME CALCULATIONS**

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 4.5 \text{ afa/acre} \times 54.7 \text{ acres} = \mathbf{246 \text{ afa}}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.80 \text{ cfs} \times 260 \text{ days} \times 1.9835 = \mathbf{413 \text{ afa}}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \mathbf{246 \text{ afa}}$$

2. Volume Calculations for Other Uses:

No other uses

G. NARRATIVE/REMARKS/COMMENTS

This permit authorizes the diversion of 1.96 cfs from groundwater to be used to irrigate 98 acres of land. Proof of beneficial use was submitted December 10, 2012. I completed the field exam for this permit on May 7, 2019.

The point of diversion is a 10-inch well with metal tag no. D0001627. The well was drilled to a depth of 422 ft, and has a static water level of 260 ft below ground surface. A 60-hp pump diverts water from the well to a 10-inch pipe which joins with a separate wastewater irrigation system just upstream of an inline flow meter. The water then passes to a wheel line used to irrigate 17 acres of alfalfa, and to a 4-span pivot used to irrigate roughly 28 acres of orchard grass.

During the field exam, wastewater was being diverted to run the wheel line and the pivot. The pressure at the start of the system was 40 psi. The inline flow meter showed a diversion rate of 360 gpm (0.80 cfs). I tried to confirm the diversion rate using the Panametric flow meter, but I was not able to collect any good measurements. I had additional questions as to whether the wastewater diversion rate would be representative of the groundwater diversion rate. It is difficult to estimate an accurate pumping capacity from the horsepower equation due to the uncertainty of drawdown and due to know regional groundwater level declines. Fortunately Tom Johnson, General Manager for the permit holder, sent me a picture of the flow meter when the well was operating (no wastewater). It shows roughly the same diversion rate of 0.80 cfs. He says that the pressure at the well was 50 psi at that time. It is unclear how the same system can have the same diversion rate at two different operating pressures.

The wastewater used for irrigation is effluent from the industrial process on the property. It is stored in multiple large ponds and is then pumped to the irrigation system. Right 63-7980 authorizes the diversion of groundwater from the same well for industrial and domestic uses and for one acre of irrigation which overlaps with this permit. There are no other overlapping water rights authorizing the diversion of groundwater or wastewater. This new permit could be viewed as authorizing additional use of the originally-appropriated groundwater under right 63-7980, but that would require the permit holder to include some sort of storage component for the large ponds. Therefore, this permit applies only to the direct diversion of groundwater from the well to the irrigation system.

Standard duty-of-water conditions address the overlapping irrigation. A combined use limit is added to show that the number of acres between this right and 63-790 are not additive.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	03/01 to 11/15	0.80 CFS	246.0 AF

Totals: 0.80 CFS 246.0 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

I. AUTHENTICATION

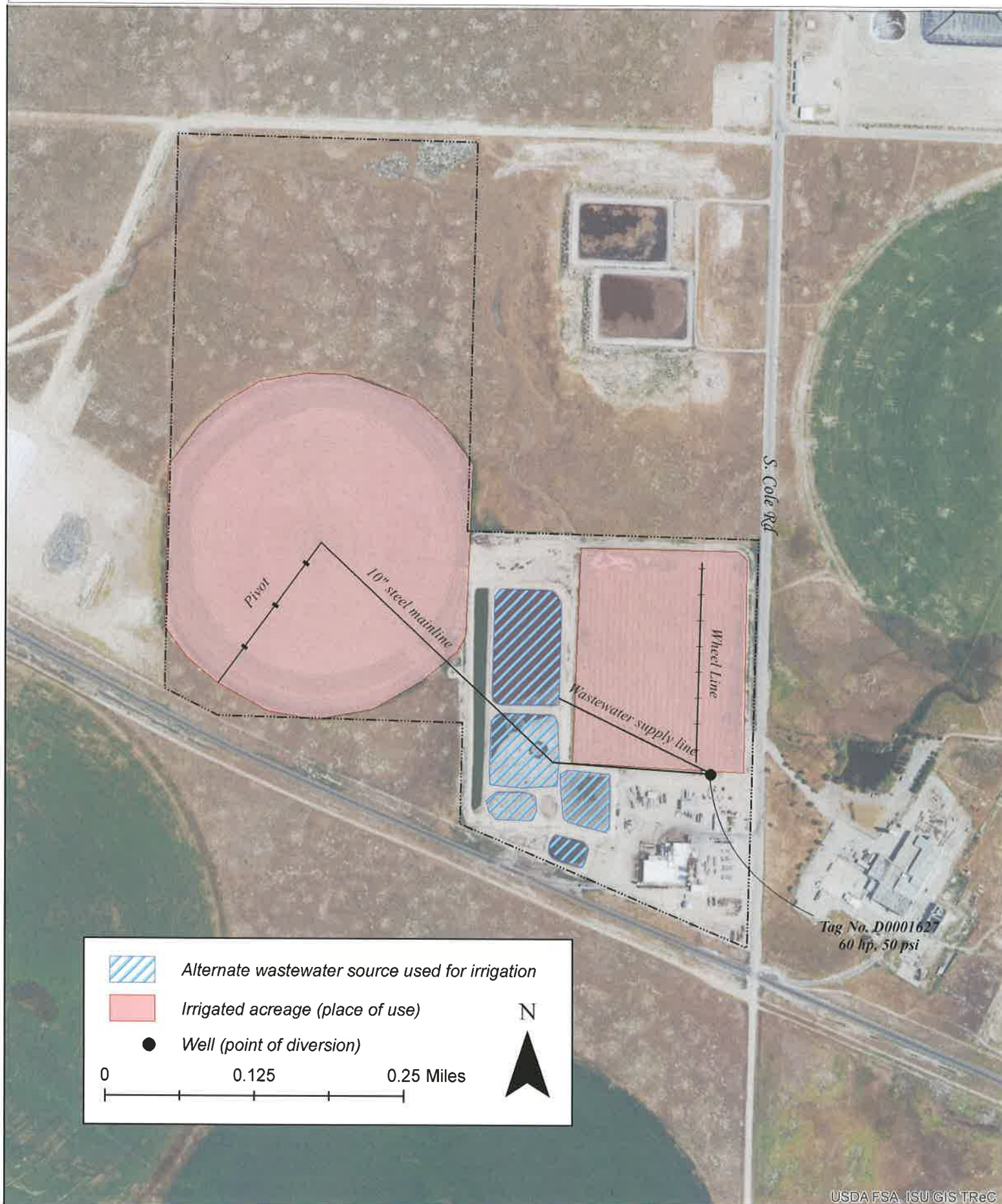
Cody Parker - Water Resource Agent, Senior

Field Examiner's Name Cody Parker Date 8-1-19

Reviewer _____ Date _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

Right No. 63-12333



State of Idaho
Department of Water Resources
Beneficial Use Field Report
63-12333

IRRIGATION



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.075 0.15 0.3 Miles





The picture of the flow meter provided by Tom Johnson, manager for the company.



The metal tag for the well used as the point of diversion for this right.



The mainline from the well (and the wastewater supply line) which has the inline-flow meter.



Wheel-line irrigation at the place of use.

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Place of Use Comparison

01N01E12

Basin/Sequ Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	Total/Acres
63-12333	DARLING GROUND IRRIGATION			3.3	35	14									2.4				54.7
63-7980	CUI INTE GROUND IRRIGATION														1				1

Point of Diversion Comparison

01N01E12

Basin/Sequ Owner	Source	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE
63-12333	DARLING GROUND WATER													X			
63-32101	BEVAN, S GROUND WATER	X			X												
63-7980	CUI INTE GROUND WATER													X			

Overlapping water right

Overlapping use of point of diversion



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 W AIRPORT WAY • BOISE, ID 83705-5082

Phone: (208)334-2190 • Fax: (208)334-2348 • Website: www.idwr.idaho.gov

Brad Little
Governor

Gary Spackman
Director

July 1, 2019

DARLING INTERNATIONAL INC
18305 S COLE RD
KUNA ID 83634

RE: Water Right Permit No. 63-12333

Dear Permit Holder(s):

The Department of Water Resources is reviewing the permit(s) referenced above prior to issuing water right license(s). By issuing a license, the Department confirms the extent of development that has been established in compliance with the terms of the permit.

The examiner who verified your water use reported that certain elements of the permit(s) have been developed differently than described on your permit(s). Changes that do not increase the authorized use of water under the permit(s) can be requested and approved in accordance with Idaho Code § 42-211. Before license(s) can be issued, your permit(s) must be amended to depict your water use as it was actually developed.

Based on the examiner's report, the following elements were developed differently than described on your permit(s):

☒ Point(s) of Diversion

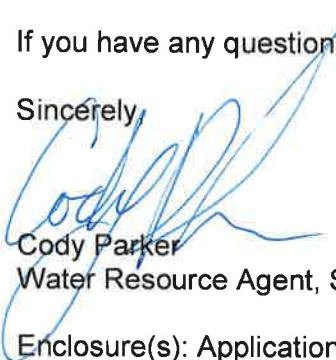
☒ Place(s) of Use

☐ Other

The enclosed Application for Amendment form(s) depicts the elements of the water right(s) as they will appear on the license(s) when issued. Please review the amendment form(s) carefully. If you concur with the information presented, please sign and return the form(s) with the filing fee of \$100.00 within fourteen (14) days.

If you have any questions, please call me at (208) 334-2190.

Sincerely,


Cody Parker
Water Resource Agent, Senior

Enclosure(s): Application for Amendment





State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 W Airport Way • Boise ID 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348

Website: idwr.idaho.gov • Email: westerninfo@idwr.idaho.gov

BRAD LITTLE
Governor

GARY SPACKMAN
Director

April 29, 2019

DARLING INTERNATIONAL INC
18305 S COLE RED
KUNA ID 83634

RE: Scheduling Field Exam for Water Permit No. 63-12333

Dear Permit Holder:

The Idaho Department of Water Resources (IDWR) is planning to conduct water right examinations in the vicinity of the above-referenced permit. An examination is needed to verify water use(s) developed under the permit in order to issue a water right license.

Your permit authorizes the diversion of 1.96 cfs from groundwater for irrigation. If you developed a beneficial use of water and still own the place of use property identified in the permit, please contact me at your earliest convenience to schedule an examination.

If you developed a beneficial use of water under the permit but no longer own the place of use property, please use the enclosed Assignment of Permit form (\$25 fee). This will allow IDWR to work with the new permit owner for the license process.

A license cannot be issued if beneficial use of water was not developed or if use was developed but abandoned.

In either of those cases, please relinquish the permit by using the enclosed Relinquishment of Permit form (no fee required). The permit will be voided if a relinquishment form is not submitted for either of those cases.

Please contact me within the next thirty (30) days to schedule an examination or submit a relinquishment or complete an assignment form. If you still own the property in question but do not make a timely response in this regard, the permit will be voided. If you no longer own that property and do not assign or relinquish the permit, IDWR will work with the current property owner to issue a license or void the permit.

Please call me at 208-334-2190 if you have any questions. I appreciate your attention to this matter and look forward to hearing from you.

Sincerely,

Cody Parker
Water Resource Agent, Sr.

Enclosure: Relinquishment of Permit Form
Assignment of Permit Form
Proof Report and Map