

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ ditch size/ pipe i.d. as applicable.

See Attached Grid sheet

- ☒ 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
NA					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calibration
NA						

2. Measurements: No waste water was flowing and no measurements were taken

E. NARRATIVE / REMARKS / COMMENTS

See attached narrative

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

F. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method: See Attached Sheets

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:

Surface area of beneficial use area = 37.2 acres.

Estimated average beneficial use depth = 4 ft

Estimated average volume of storage = 148.8 acft

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
<u>Wildlife</u>	<u>4/15</u>	<u>10/31</u>	<u>25</u>	_____
<u>Wildlife Storage</u>	<u>1/1</u>	<u>12/31</u>	_____	<u>150</u>
<u>Ground Water Recharge</u>	<u>4/15</u>	<u>10/31</u>	<u>25</u>	_____
<u>Diversion to Storage</u>	<u>4/15</u>	<u>10/31</u>	<u>25</u>	_____
TOTALS:			<u>25</u>	_____

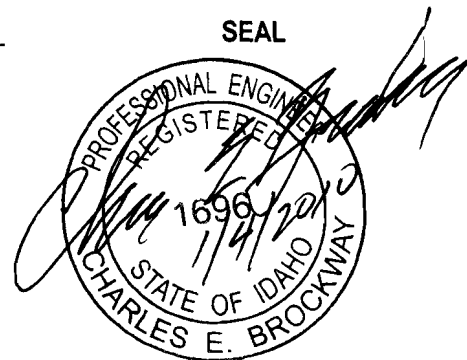
2. Recommended Amendments

- | | | |
|---|--|--|
| ☐ 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 |

I. AUTHENTICATION

Field Examiner's Name: Charles E. Brockway Date: 1/4/2010

Reviewer: _____ Date: _____



Narrative for the Beneficial Use Examination
Permit Nos. 37-20653 and 37-20654
Thomas M. O’Gara Family Trust

A site visit was made to Thomas M. O’Gara Family Trust Ranch, located south of Bellevue, Idaho. The purpose of the site visit was to certify beneficial use of water right permits 37-20653 and 37-20654. The site visit was made in coordination with William Ng, Mr. O’Gara’s ranch manager.

Water right permits 37-20653 and 37-20654 are waste water permits for excess water from the District 45 Canal and Baseline Canal, respectively. Each water right permit is for 25 cfs – effectively all the remaining water flowing in the respective canal systems. Mr. O’Gara owns 20.46 cfs of water rights from the Big Wood River that are delivered to his property through the canal systems, with 8.86 cfs from the District 45 Canal and 11.6 cfs from the Baseline Canal (Table 1). His property is located at the terminal end of both canal systems. All excess water available within the canals has historically flowed into a series of ponds on Mr. O’Gara’s property. The intent of these permits was to secure a valid water right for the historical beneficial use of the waste water.

The beneficial use field exam was conducted on December 17, 2009. At that time, no water was being delivered through either canal system. Evaluation of the delivery system was performed and the beneficial use exam is based on the ability of the system to convey waste water to its designated place of use. No actual flow measurements were taken. Figure 1 outlines the surface water delivery system from the Baseline and District 45 Canals to the place of use.

Surface water from both canal systems is delivered to Mr. O’Gara’s property through a private ditch at the terminal ends of the canal system. There is a concrete box culvert under Baseline road (Figure 1, Point A and Figure 2) to convey water from the canal systems to Mr. O’Gara’s private ditch. The culvert is 10 feet wide with an average height of 3.77 feet. The culvert is approximately 25 feet long. The estimated flow through the box culvert is 90 cfs (assuming partially full Type 3 culvert flow, Chow, 1959) and is sufficient to convey the surface water rights (20.46 cfs) and the permits (50 cfs). The point of diversion for the waste water is most correctly identified as the SENE Lot 1, Section 5 T1S R19E, Boise Meridian.

The private ditch system (Figure 1, Ditch 1) conveys the water parallel to Baseline Road to the intersection of Baseline Road and Price Lane. The ditch along Baseline Road is approximately 12 feet wide and 5 feet deep and 1200 ft long (Figure 3). The maximum open channel flow estimate of Ditch 1 is approximately 127 cfs. At Point B (Figure 1 and 4) the delivery ditch splits and water can flow south along the west side of Price Lane (Ditch 2) or under Price Lane to the irrigation distribution system and additional surface water conveyance ditches. The diversion structures at Point B consist of two 4 ft by 3.1 ft openings that can be closed by diversion boards and a culvert under Price Lane. Ditch 2 provides a flow path for waste water that does not interfere with the irrigation system of the Ranch. However, waste water flow through the irrigation pond provides access to the

other wildlife storage features that will be discussed further. Ditch 2 has a width of approximately 10 ft and a depth of 4 ft (maximum flow rate of 120 cfs). Ditch 2 terminates in the depression (Figure 5) located west of Price Lane in NENE and SENE of section 8, T1S R18E. The surface area of these ponds covers approximately 12.5 acres. The depth of the depressions was estimated to be approximately 8 feet. The total volume of these depressions was estimated to be 100 ac-ft.

The irrigation distribution pond at Point C (Figure 1) contains the irrigation pumps for the Ranch. Also located at the southeast corner of the irrigation pond are two diversion structures that allow water to flow into Ditch 3 (Figure 6). Ditch 3 conveys water to the other beneficial use areas. Ditch 3 has an approximate width of 8 ft and a depth of 3 ft, with an approximate open channel flow rate of over 60 cfs. Ditch 3 flows to Point D and splits into Ditches 4 and 5. Ditch 5 continues flowing south, flows through a double barrel culvert under a private access road (Figure 7), and flows to Point E (Figure 8) where the ditch is further divided to supply water to beneficial use areas.

A small portion of waste water can be diverted into the irrigation distribution system at Point C to supply water to a small water impoundment area located in T1S R19E Sec. 9 NESW.

The beneficial use area of the waste water rights includes the following quarter-quarter locations (Figure 1): T1S R19E Sec. 8 NENE and SENE; T1S R19E Sec. 9 SENE, NESW, NESE, NWSE, SWSE, and SESE; and T1S R19E Sec. 10 NESW, NWSW, and SWSW. The wildlife beneficial use area of the waste water place of use was determined to be 37.2 acres. The permits limit the authorized wildlife storage ponds to a total surface area not to exceed 46.4 acres, which condition is met. The ponds have a capacity of storing more than the allowed 150 acft because of the depth of water that could be stored in the ponds located in Section 8. However, with a realistic average depth of 4 ft over all storage ponds, the total storage volume would be 148.8 acft, within the permit condition. The waste water can seep into the groundwater system or it can overflow from the water storage areas to flow towards Silver Creek. Ancillary wetland riparian areas created from overland flow from waste water was not considered an active place of use of these water right permits.

The following discussion outlines the Conditions of Approval for both permits – which are identical and discusses compliance of each condition. Conditions of Approval on the permit are italicized.

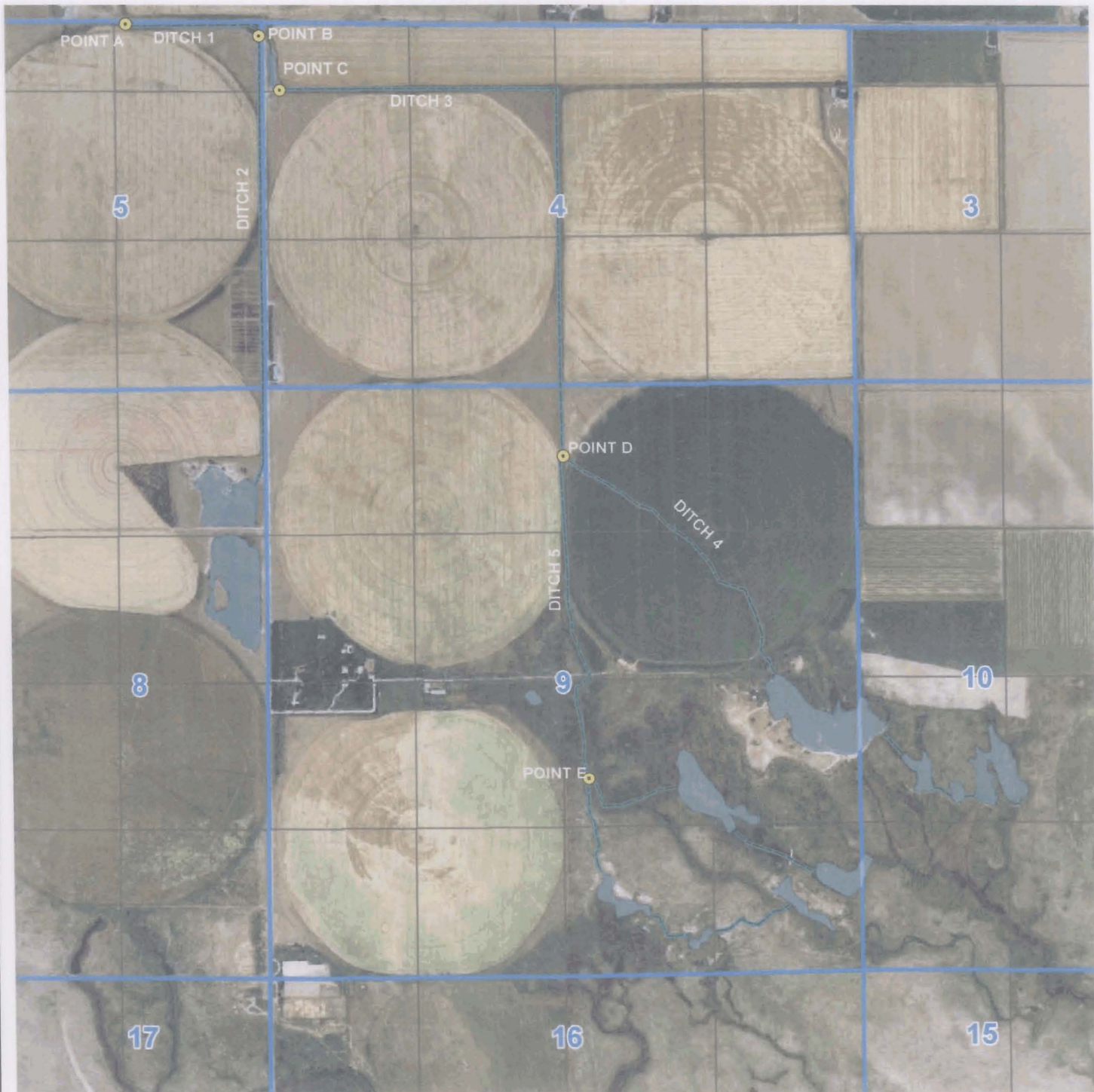
- 1) *Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 37.*
 - a) Water right permits are under the responsibility of the watermaster – at this time, these rights are within State Water District No. 37.
- 2) *Prior to diversion of water under this right, the right holder shall install and maintain a measuring device and lockable controlling works of a type acceptable to the Department as part of the diverting works.*

- a) An adjustable cipolletti weir is located at point C as seen in Figure 6. No other measuring devices are installed. A portion or all of the waste water could be diverted prior to the measuring device. No method of distinguishing and measuring waste water separate from irrigation water is available.
- 3) *The right holder shall divert 81 AF of water to storage each year in accordance with Rights 37-20636, 37-20638, 37-20640, 37-20642, 37-20644, 37-20646, 37-20648, 37-20650, and 37-20652, as they were approved in Transfer 69756, to mitigate evaporative losses associated with this right. If the specified mitigation rights, or portions thereof, are not used or are not deliverable due to a shortage of water or a priority call, then the amount of water authorized for diversion under this right shall be reduced by the same proportion as the reduction to the mitigation rights.*
 - a) No diversion records of 81 acft were supplied to the water right examiner. Reduction of irrigation land was also a stipulation of transfer no. 69756. Reduction of irrigation has been implemented. Surface irrigation rights were split as a result of transfer no. 69756 (water right numbers listed above) with 0.48 cfs for mitigation purposes.
- 4) *Prior to the diversion and use of water under this approval, the right holder shall comply with applicable water quality standards of the Department of Environmental Quality.*
 - a) No water quality standard tests have been performed.
- 5) *This right does not grant any right-of-way or easement across the land of another.*
 - a) No right of way or easements were assumed – permit holder owns land on which water is conveyed.
- 6) *Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.*
 - a) No physical evaluation required at this time.
- 7) *The source of water diverted under this right is waste water and is subject to the right of the original appropriator, in good faith and in compliance with state laws governing changes in use and/or expansion of water rights, to cease wasting water, to change the place of use or manner of wasting it, or to recapture it.*
 - a) No physical evaluation required at this time.
- 8) *Right holder shall not divert or impound any water source, other than wastewater, under this right.*
 - a) From the water right exam, it did not appear that any other water source was diverted or impounded.
- 9) *Rights 37-20653 and 37-20654 when combined shall not exceed a total annual maximum storage volume of 150.0 af.*
 - a) System is capable of storing more than 150 acft, the license should be limited to 150 acft.
- 10) *Rights 37-20653 and 37-20654 authorize wildlife storage ponds with a total surface area not to exceed 46.4 acres. This surface area encompasses pre-existing wetland areas in the amount of 26.2 acres with no pre-existing storage capacity.*
 - a) Surface area of wildlife storage ponds total 37.2 acres.

- 11) The use of water for ground water recharge purposes under this right does not provide a right to recover ground water for any purpose nor a credit as mitigation for diversion associated with any existing or future water right.*
 - a) No physical evaluation required at this time.
- 12) The ground water recharge portion of this right is subject to all prior water rights, including those water rights for power purposes that may otherwise be subordinated by contract entered into by the governor and Idaho Power Company on October 25, 1984, and ratified by the legislature pursuant to Section 42-203B, Idaho Code.*
 - a) No physical evaluation required at this time.
- 13) Pursuant to Section 42-4201A(3), Idaho Code, the Director may reduce the amount of water diverted for recharge purposes under this right even though there is sufficient water to supply the entire amount authorized for appropriation under this right.*
 - a) No physical evaluation required at this time.
- 14) To insure that other water rights are not injured by the operations of the recharge project authorized by this right, the director retains jurisdiction to approve, disapprove, or require alterations in the methods employed to achieve ground water recharge.*
 - a) No physical evaluation required at this time.
- 15) Water diverted under this right is wastewater from the District 45 or Baseline Canals.*
 - a) Water right permit no. 37-20653 is for waste water from the District 45 Canal.
 - b) Water right permit no. 37-20654 is for waste water from the Baseline Canal.

Table 1: Surface Water Rights Owned by Thomas M. O’Gara Family Trust Delivered Through the District 45 or Baseline Canals.

Water Right	Priority	Diversion Rate (cfs)	Beneficial Use	Delivery System
37-115F	6/12/1886	1	Irrigation	District 45
37-501B	5/1/1886	0.4	Irrigation	District 45
37-501C	5/1/1886	2	Irrigation	District 45
37-577BZ	3/24/1883	0.69	Irrigation	District 45
37-577K	3/24/1883	1.38	Irrigation	District 45
37-590B	5/1/1886	1	Irrigation	District 45
37-597B	5/1/1886	0.7	Irrigation	District 45
37-20641	7/10/1884	0.96	Irrigation	District 45
37-20642	7/10/1884	0.04	Diversion to Storage Wildlife Storage	District 45
37-20643	3/24/1883	0.67	Irrigation	District 45
37-20644	3/24/1883	0.02	Diversion to Storage Wildlife Storage	District 45
Total – District 45 Canal		8.86		
37-20645	5/17/1883	5.4	Irrigation	Baseline
37-20646	5/17/1883	0.2	Diversion to Storage Wildlife Storage	Baseline
37-20647	4/17/1883	0.48	Irrigation	Baseline
37-20648	4/17/1883	0.02	Diversion to Storage Wildlife Storage	Baseline
37-20649	6/20/1884	4.34	Irrigation	Baseline
37-20650	6/20/1884	0.16	Diversion to Storage Wildlife Storage	Baseline
37-20651	6/2/1890	0.96	Irrigation	Baseline
37-20652	6/2/1890	0.04	Diversion to Storage Wildlife Storage	Baseline
Total – Baseline Canal		11.6		
37-20653	12/21/2000	25	Wildlife Wildlife Storage Ground Water Recharge Diversion to Storage	Waste Water
37-20654	12/21/2000	25	Wildlife Wildlife Storage Ground Water Recharge Diversion to Storage	Waste Water
Total – Waste Water		50		
Total – All Sources		70.46		



1 inch equals 1,300 feet

**FIGURE 1: CONVEYANCE SYSTEM DIAGRAM
PROOF OF PERMITS 37-20653, & 36-20654
NAIP 2006 AERIAL PHOTO**

Legend

- 101s19e
- Ditch = 21,241 feet
- Wastewater Ponds = 37.2 ac.
- Sections





FIGURE 2: CULVERT UNDER BASELINE ROAD
PERMIT NOS. 37-20653 AND 37-20654
THOMAS M. O'GARA FAMILY TRUST



FIGURE 3: DITCH 1 SOUTH SIDE OF BASELINE ROAD FLOWING EAST

PERMIT NOS. 37-20653 AND 37-20654

THOMAS M. O'GARA FAMILY TRUST

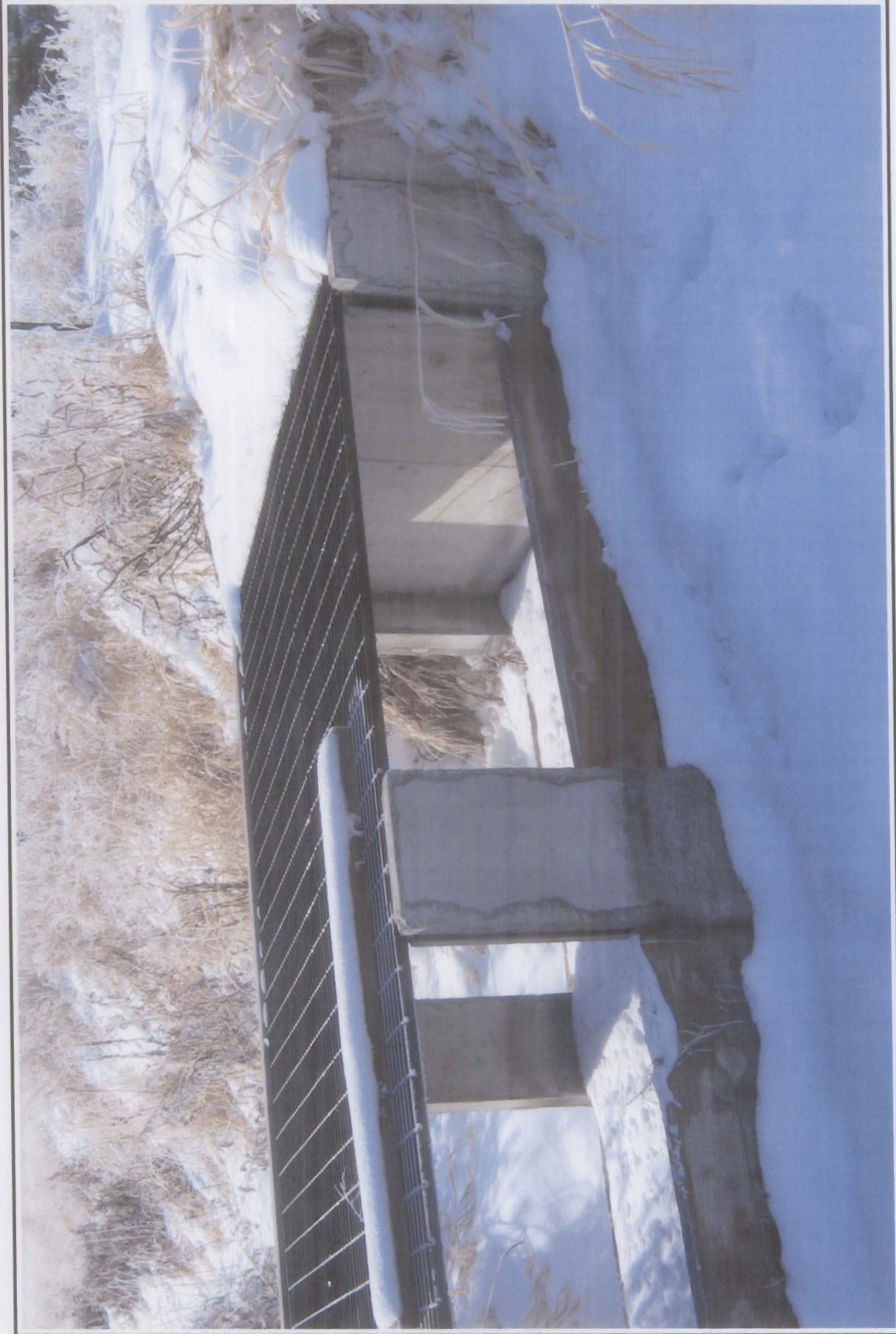


FIGURE 4: DIVERSION STRUCTURE AT POINT B
PERMIT NOS. 37-20653 AND 37-20654
THOMAS M. O'GARA FAMILY TRUST



FIGURE 5: GROUND DEPRESSION AREA LOCATED IN NENE SEC. 8 T1S R19E

PERMIT NOS. 37-20653 AND 37-20654

THOMAS M. O'GARA FAMILY TRUST



FIGURE 6: SURFACE WATER DIVERSION GATES OFF OF IRRIGATION DISTRIBUTION POND
PERMIT NOS. 37-20653 AND 37-20654
THOMAS M. O'GARA FAMILY TRUST



FIGURE 7: CULVERTS UNDER PRIVATE ACCESS ROAD ALONG DITCH 5

PERMIT NOS. 37-20653 AND 37-20654

THOMAS M. O'GARA FAMILY TRUST



FIGURE 8: DIVERSION STRUCTURE LOCATED AT POINT E
PERMIT NOS. 37-20653 AND 37-20654
THOMAS M. O'GARA FAMILY TRUST