

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**

Permit No: 63-12017  
Exam Date: 3/10/2016

1. Current Owner:  
CITY OF EAGLE PO BOX 1520 EAGLE ID 83616
2. Accompanied by: Ken Acuff (Water Dept. Superintendent) and Kellie Rekow (Utility Billing Supervisor)  
Phone No: (208) 939-6813  
Address: PO BOX 1520 EAGLE ID 83616  
Relationship to Permit Holder: Representatives

**3. SOURCE: GROUND WATER****B. OVERLAP REVIEW**

1. Other water rights with the same place of use: Many overlaps – City of Eagle has a large “generally described” POU: 63-12017, 63-12448, 63-32089, 63-32090, 63-33876, 63-33878
2. Other water rights with the same point-of-diversion: 63-11413 and 63-12448

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

GROUND WATER SW¼SW¼ Sec. 3, Twp 04N, Rge 01E, B.M. ADA County

GROUND WATER NW¼SW¼ Sec. 3, Twp 04N, Rge 01E, B.M. ADA County

GROUND WATER SW¼SW¼ Sec. 4, Twp 04N, Rge 01E, B.M. ADA County

Method of Determination:

2. **PLACE OF USE:** AESTHETIC, AESTHETIC STORAGE, RECREATION, RECREATION STORAGE, WILDLIFE, WILDLIFE STORAGE

| Twp | Rge | Sec | NE |    |    |    | NW |    |    |    | SW |    |    |    | SE |    |    |    | Totals |
|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
|     |     |     | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE |        |
| 04N | 01E | 3   |    |    |    |    |    |    |    | X  | X  | X  | X  | X  |    | X  |    | X  |        |

Method of Determination: GIS

**3. FIGURE AND MAP REQUIREMENTS:**

- x Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- x Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- x Aerial Photo Attached (required for irrigation of 10+ acres).
- x Photo of Diversion and System Attached

**4. DIVERSION INFRASTRUCTURE**

| Well or Diversion Identification No.                            | Motor Make            | Hp        | Motor Serial No.              | Pump Make                                        | Pump Serial No. or Discharge Size          |
|-----------------------------------------------------------------|-----------------------|-----------|-------------------------------|--------------------------------------------------|--------------------------------------------|
| City Municipal Well No 1<br>(Lexington Hills No 1)<br>Two Pumps | Franklin Electric X 2 | 75 and 30 | Unknown<br>236 616 90         | Crown BL 600-4 (600 GPM)<br>Gould 6CHC (250 GPM) | 6" discharge pipe and<br>3" discharge pipe |
| City Municipal Well No 2<br>(Lexington Hills No 2)              | Baldor                | 75        | ID12475-E<br>Serial no. 30292 | Crown BL 600-4 (600 GPM)                         | 6" discharge pipe                          |
| City Municipal Well No 3<br>(Brookwood)<br>Well Tag D0047605    | Franklin Electric     | 100       | 8" – no. 239 604 60           | Berkeley                                         | Model 8T 100-950                           |

\*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 |
|-----------------------|-----------------------------|------------|-------------|-------------|----------|-------------|
| Flow Meter            | Propeller                   | McCrometer | Not Visible | Not Visible | 4" Meter | Unknown     |
| Flow Meter            | Nutating Disc (Residential) | Neptune    | Not Visible | Not Visible | 1" Meter | Unknown     |

2. Measurements:

At the time of the exam, the ponds were full, and the valve to fill them was closed. On the 6" water service, we previewed the McCrometer propeller meter, but did not run the system without permission from the HOA. We know that this meter is functional because it is read each month for billing to Lexington Hills HOA. The 1" water service meter was functional and running. This residential type of meter does not measure flow rate, but only measures volume. It is likely that water was flowing at or below 0.02 cfs this small service pipe at the time of the exam. The low-flow indicator was turning slowly, but the dial was moving so slowly that it was barely visible. (See informational attachment.)

**E. FLOW CALCULATIONS**

Measured Method: Flow Meter/Theoretical

\_\_\_\_ Additional Computation Sheets Attached

\*\*\* See the field exam report for 63-11413 for a detailed description of the ground water diversion works (east zone), which has a total pumping capacity of approximately 5.0 cfs.

Velocity in Pipe:  $V = 5.0 \text{ ft/s}$  (5.0 ft/s is typical per *AWWA standard*, not to exceed 7.5 ft/s)

Flow Rate (6" svc):  $Q = V \times A = (5.0 \text{ ft/s}) \times (\pi/4 \times D^2) = (5.0 \text{ ft/s}) \times (3.14159 / 4 \times (6 \text{ in} \times 1 \text{ ft}/12 \text{ in})^2) = 0.982 \text{ ft}^3/\text{s}$   
(Maximum = 1.47 ft<sup>3</sup>/s)

Flow Rate (1" svc):  $Q = V \times A = (5.0 \text{ ft/s}) \times (\pi/4 \times D^2) = (5.0 \text{ ft/s}) \times (3.14159 / 4 \times (1 \text{ in} \times 1 \text{ ft}/12 \text{ in})^2) = 0.027 \text{ ft}^3/\text{s}$   
(Maximum = 0.04 ft<sup>3</sup>/s)

Permit Diversion Rate = **1.56 CFS**; Recommended Total Maximum Diversion Rate = **1.50 CFS**

**F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \text{N/A}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \text{N/A}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \text{N/A}$

## 2. Volume Calculations for Other Uses:

### AESTHETIC, RECREATION, WILDLIFE, DIVERSION TO STORAGE

Recommend **56.0 AF**. This volume is based upon water meter billing records (see attached spreadsheet).

### AESTHETIC STORAGE, RECREATION STORAGE, WILDLIFE STORAGE

I measured the surface area of the water amenity (pond) system using GIS ArcMap. In total, the surface area of the system is approximately 5.0 acres. Pond depth varies throughout the water amenity, but I estimated an average depth of 3.0 feet based on the permit application and visual inspection at the field exam. Therefore, I recommend a storage capacity of 15.0 af.

## G. NARRATIVE/REMARKS/COMMENTS

### **Introduction**

When I originally set this appointment with Mr. Acuff, I expected to only complete a site visit on March 10, in order to photograph the "wintertime" (outside irrigation season) water levels in the ponds. I had planned to return in a few weeks, after the start of the irrigation season, suspecting a change in the system's water levels. On Thursday, March 10, 2016, I met Ken Acuff (Water Superintendent) and Kellie Rekow (Utility Billing Supervisor) at one of the uppermost aesthetic ponds in Lexington Hills subdivision. We met at a large pond containing a rock waterfall, off of Parkforest Way, between Radcliffe Place and Stonecrest Way.

After our greetings, I explained that I would like to take the community footpath along the ponds, heading south toward Floating Feather Road. They conceded to my request, and I took photographs along the way with the goal of observing each beneficial use in association with permit 63-12017. I soon realized that all of the ponds were already full, at that time of the site visit. I explained that I would probably not need to return if we could make a few extra stops on the tour of the pond system. I would need to see the irrigation headgate as well as the water services (pipe diameter and flow meter) which supply City water to the ponds outside of irrigation season.

### **Beneficial Use**

As we walked southward along the path, the "wildlife" and "wildlife storage" use became obvious. Many ducks and geese flocked around and swam in the ponds. The "aesthetic" and "aesthetic storage" components were also relatively easy to recognize. An asphalt-paved path ran alongside the entire length of the water amenity (chain of ponds). We passed a few residents enjoying a stroll on the path during our walk that morning. Before I noticed the "No Swimming" signs on the larger ponds, I inquired whether there was an area which allowed swimming, boating, or some other form of recreation. Ken and Kellie didn't think so. Finally we came upon some signs that would lead one to believe that the homeowners association sometimes stocks the ponds for residents to fish. This confirms the "recreation" and "recreation storage" beneficial uses.

### **Meters and Measurement Equipment**

We finally made our way to the largest pond, closest to Floating Feather Road. At this location, I was able to view the irrigation pump house (for pressurized irrigation of the subdivision during irrigation season only, using Farmers Union Ditch Co. shares). I was also able to view the irrigation well which is associated with permit 63-33495 held by Lexington Hills Homeowners Association.

After this, we followed the pathway westward toward the other large pond along Floating Feather Road, near the intersection of Stonybrook Court and Parkforest Way. Here, Ken and Kellie pointed out the irrigation headgate, where the irrigation water is delivered. At the pond immediately north of this, we looked at the main City water service to the ponds (6" diameter). I photographed the McCrometer flow meter in the meter pit.

Next, we began a search for the meter known as the "waterfall meter," at a mystery location on the system. After some searching and phone calls to other operators who regularly read meters, we found the other city water service to a small water feature on Aldercrest Place. Here, Ken removed the meter pit lid, and I took a photo of the 1" service and meter. No storage was occurring at this location, only "aesthetic" use. This ended the field examination.

We did not view the City wells which provide water to the subdivision amenity because they are already photographed and thoroughly documented in WR record 63-11413.

Have conditions of permit approval been met?      x    Yes            No

**H. RECOMMENDATIONS****1. Recommended Amounts**

| <u>BENEFICIAL USE</u> | <u>PERIOD OF USE</u> | <u>DIVERSION RATE</u> | <u>ANNUAL VOLUME</u> |
|-----------------------|----------------------|-----------------------|----------------------|
| WILDLIFE              | 01/01 to 12/31       | 1.50 CFS              | 56.0 AF              |
| WILDLIFE STORAGE      | 01/01 to 12/31       |                       | 15.0 AF              |
| RECREATION            | 01/01 to 12/31       | 1.50 CFS              | 56.0 AF              |
| RECREATION STORAGE    | 01/01 to 12/31       |                       | 15.0 AF              |
| AESTHETIC             | 01/01 to 12/31       | 1.50 CFS              | 56.0 AF              |
| AESTHETIC STORAGE     | 01/01 to 12/31       |                       | 15.0 AF              |
| DIVERSION TO STORAGE  | 01/01 to 12/31       | 1.50 CFS              | 56.0 AF              |
|                       | <u>Totals:</u>       | 1.500 CFS             | 56.00 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**

Field Examiner's Name Ashley Newbry      Date 3.18.16

## Lexington Pond History

| Readings in gallons |                      |          |             |              |
|---------------------|----------------------|----------|-------------|--------------|
| Date                | From                 | To       | Consumption | Avg Cons/Day |
| 2009                |                      |          |             |              |
| 3-24 / 4-17         | 69761600             | 71028100 | 1,266,500   | 52,770.83    |
| 2-20 / 3-24         | 67426800             | 69761600 | 2,334,800   | 72,962.50    |
| 1-29 / 2-20         | 65263300             | 67426800 | 2,163,500   | 94,065.22    |
| 1-23 / 1-29         | 64775700             | 65263300 | 487,600     | 81,266.67    |
| 12-23 / 1-23        | No billing - repairs |          |             |              |
| 2008                |                      |          |             |              |
| 12-19 / 12-23       | 62281200             | 64775700 | 2,494,500   | 623,625.00   |
| 11-24 / 12-19       | 57931100             | 62281200 | 4,350,100   | 174,004.00   |
| 11-7 / 11-24        | 57021300             | 57931100 | 909,800     | 53,517.65    |
| 9-17 / 11-7         | 55199900             | 57021300 | 1,821,400   | 35,713.73    |
| 4-17 / 9-17         | No billing           |          |             |              |
| 3-11 / 4-11         | 53323500             | 55199900 | 1,876,400   | 60,529.03    |
| 2-13 / 3-11         | 49643700             | 53323500 | 3,679,800   | 141,530.77   |
| 1-11 / 2-13         | 47130400             | 49643700 | 2,513,300   | 76,160.61    |
| 12-13 / 1-11        | 45815600             | 47130400 | 1,314,800   | 45,337.93    |
| 2007                |                      |          |             |              |
| 11-8 / 12-13        | 43840100             | 45815600 | 1,975,500   | 56,442.86    |
| 10-10 / 11-8        | 41949500             | 43840100 | 1,890,600   | 65,193.10    |
| 9-11 / 10-10        | 41429900             | 41949500 | 519,600     | 17,917.24    |
| 4-17 / 9-11         | No billing           |          |             |              |
| 3-14 / 4-17         | 37981500             | 41429900 | 3,448,400   | 101,423.53   |
| 2-13 / 3-14         | 34329900             | 37981500 | 3,651,600   | 125,917.24   |
| 12-12 / 2-13        | 30188100             | 34329900 | 4,141,800   | 65,742.86    |
| 2006                |                      |          |             |              |
| 11-9 / 12-12        | 28022100             | 30188100 | 2,166,000   | 65,636.36    |
| ?? / 11-9           | 26553400             | 28022100 | 1,468,700   |              |
| 5-18 / ??           | No billing           |          |             |              |
| 4-12 / 5-18         | 25505500             | 26553400 | 1,047,900   | 29,108.33    |
| 3-10 / 4-12         | 23872000             | 25505500 | 1,633,500   | 49,500.00    |
| 2-10 / 3-10         | 21262000             | 23872000 | 2,610,000   | 93,214.29    |
| 1-12 / 2-10         | 18777100             | 21262000 | 2,484,900   | 85,686.21    |
| 12-12 / 1-12        | 16866900             | 18777100 | 1,910,200   | 61,619.35    |
| 2005                |                      |          |             |              |
| 11-15 / 12-12       | 15609300             | 16866900 | 1,257,600   | 46,577.78    |
| 10-12 / 11-15       | 12486300             | 15609300 | 3,123,000   | 91,852.94    |
| 4-14 / 10-12        | No billing           |          |             |              |
| 3-10 / 4-14         | 9498600              | 12486300 | 2,987,700   | 85,362.86    |
| 2-11 / 3-10         | 7321500              | 9498600  | 2,177,100   | 80,633.33    |
| 1-12 / 2-11         | 4269700              | 7321500  | 3,051,800   | 101,726.67   |
| 12-? / 1-12         | 2694200              | 4269700  | 1,575,500   |              |

Added Analysis:

| Usage in Gallons | Usage in AF |
|------------------|-------------|
| 1266500          | 3.89        |
| 2334800          | 7.17        |
| 2163500          | 6.64        |
| 487600           | 1.50        |
|                  |             |
| 2494500          | 7.66        |
| 4350100          | 13.35       |
| 909800           | 2.79        |
| 1821400          | 5.59        |
|                  |             |
| 1876400          | 5.76        |
| 3679800          | 11.29       |
| 2513300          | 7.71        |
| 1314800          | 4.03        |
|                  |             |
| 1975500          | 6.06        |
| 1890600          | 5.80        |
| 519600           | 1.59        |
|                  |             |
| 3448400          | 10.58       |
| 3651600          | 11.21       |
| 4141800          | 12.71       |
|                  |             |
| 2166000          | 6.65        |
| 1468700          | 4.51        |
|                  |             |
| 1047900          | 3.22        |
| 1633500          | 5.01        |
| 2610000          | 8.01        |
| 2484900          | 7.63        |
| 1910200          | 5.86        |
|                  |             |
| 1257600          | 3.86        |
| 3123000          | 9.58        |
|                  |             |
| 2987700          | 9.17        |
| 2177100          | 6.68        |
| 3051800          | 9.37        |
| 1575500          | 4.84        |

|            |      |            |      |           |      |            |      |            |      |            |      |            |      | Annual Usage |      |      |
|------------|------|------------|------|-----------|------|------------|------|------------|------|------------|------|------------|------|--------------|------|------|
| 1/12/2006  |      | 12/1/2005  | 0.14 | 2/13/2007 |      | 1/2/2007   | 0.20 | 11/21/2006 | 0.20 | 1/11/2008  |      | 11/30/2007 | 0.17 | 1/29/2009    |      | 2009 |
| 1/11/2006  | 0.19 | 11/30/2005 | 0.14 | 2/12/2007 | 0.20 | 1/1/2007   | 0.20 | 11/20/2006 | 0.20 | 1/10/2008  | 0.13 | 11/29/2007 | 0.17 | 1/28/2009    | 0.04 | 18.8 |
| 1/10/2006  | 0.19 | 11/29/2005 | 0.14 | 2/11/2007 | 0.20 | 12/31/2006 | 0.20 | 11/19/2006 | 0.20 | 1/9/2008   | 0.13 | 11/28/2007 | 0.17 | 1/27/2009    | 0.04 |      |
| 1/9/2006   | 0.19 | 11/28/2005 | 0.14 | 2/10/2007 | 0.20 | 12/30/2006 | 0.20 | 11/18/2006 | 0.20 | 1/8/2008   | 0.13 | 11/27/2007 | 0.17 | 1/26/2009    | 0.04 |      |
| 1/8/2006   | 0.19 | 11/27/2005 | 0.14 | 2/9/2007  | 0.20 | 12/29/2006 | 0.20 | 11/17/2006 | 0.20 | 1/7/2008   | 0.13 | 11/26/2007 | 0.17 | 1/25/2009    | 0.04 |      |
| 1/7/2006   | 0.19 | 11/26/2005 | 0.14 | 2/8/2007  | 0.20 | 12/28/2006 | 0.20 | 11/16/2006 | 0.20 | 1/6/2008   | 0.13 | 11/25/2007 | 0.17 | 1/24/2009    | 0.04 |      |
| 1/6/2006   | 0.19 | 11/25/2005 | 0.14 | 2/7/2007  | 0.20 | 12/27/2006 | 0.20 | 11/15/2006 | 0.20 | 1/5/2008   | 0.13 | 11/24/2007 | 0.17 | 1/23/2009    | 0.04 | 2008 |
| 1/5/2006   | 0.19 | 11/24/2005 | 0.14 | 2/6/2007  | 0.20 | 12/26/2006 | 0.20 | 11/14/2006 | 0.20 | 1/4/2008   | 0.13 | 11/23/2007 | 0.17 | 1/22/2009    | 0.04 | 55.9 |
| 1/4/2006   | 0.19 | 11/23/2005 | 0.14 | 2/5/2007  | 0.20 | 12/25/2006 | 0.20 | 11/13/2006 | 0.20 | 1/3/2008   | 0.13 | 11/22/2007 | 0.17 | 1/21/2009    | 0.04 |      |
| 1/3/2006   | 0.19 | 11/22/2005 | 0.14 | 2/4/2007  | 0.20 | 12/24/2006 | 0.20 | 11/12/2006 | 0.20 | 1/2/2008   | 0.13 | 11/21/2007 | 0.17 | 1/20/2009    | 0.04 |      |
| 1/2/2006   | 0.19 | 11/21/2005 | 0.14 | 2/3/2007  | 0.20 | 12/23/2006 | 0.20 | 11/11/2006 | 0.20 | 1/1/2008   | 0.13 | 11/20/2007 | 0.17 | 1/19/2009    | 0.04 |      |
| 1/1/2006   | 0.19 | 11/20/2005 | 0.14 | 2/2/2007  | 0.20 | 12/22/2006 | 0.20 | 11/10/2006 | 0.20 | 12/31/2007 | 0.13 | 11/19/2007 | 0.17 | 1/18/2009    | 0.04 |      |
| 12/31/2005 | 0.19 | 11/19/2005 | 0.14 | 2/1/2007  | 0.20 | 12/21/2006 | 0.20 | 11/9/2006  | 0.20 | 12/30/2007 | 0.13 | 11/18/2007 | 0.17 | 1/17/2009    | 0.04 |      |
| 12/30/2005 | 0.19 | 11/18/2005 | 0.14 | 1/31/2007 | 0.20 | 12/20/2006 | 0.20 |            |      | 12/29/2007 | 0.13 | 11/17/2007 | 0.17 | 1/16/2009    | 0.04 |      |
| 12/29/2005 | 0.19 | 11/17/2005 | 0.14 | 1/30/2007 | 0.20 | 12/19/2006 | 0.20 |            |      | 12/28/2007 | 0.13 | 11/16/2007 | 0.17 | 1/15/2009    | 0.04 |      |
| 12/28/2005 | 0.19 | 11/16/2005 | 0.14 | 1/29/2007 | 0.20 | 12/18/2006 | 0.20 |            |      | 12/27/2007 | 0.13 | 11/15/2007 | 0.17 | 1/14/2009    | 0.04 |      |
| 12/27/2005 | 0.19 | 11/15/2005 | 0.14 | 1/28/2007 | 0.20 | 12/17/2006 | 0.20 |            |      | 12/26/2007 | 0.13 | 11/14/2007 | 0.17 | 1/13/2009    | 0.04 | 2007 |
| 12/26/2005 | 0.19 |            |      | 1/27/2007 | 0.20 | 12/16/2006 | 0.20 |            |      | 12/25/2007 | 0.13 | 11/13/2007 | 0.17 | 1/12/2009    | 0.04 | 46.5 |
| 12/25/2005 | 0.19 |            |      | 1/26/2007 | 0.20 | 12/15/2006 | 0.20 |            |      | 12/24/2007 | 0.13 | 11/12/2007 | 0.17 | 1/11/2009    | 0.04 |      |
| 12/24/2005 | 0.19 |            |      | 1/25/2007 | 0.20 | 12/14/2006 | 0.20 |            |      | 12/23/2007 | 0.13 | 11/11/2007 | 0.17 | 1/10/2009    | 0.04 |      |
| 12/23/2005 | 0.19 |            |      | 1/24/2007 | 0.20 | 12/13/2006 | 0.20 |            |      | 12/22/2007 | 0.13 | 11/10/2007 | 0.17 | 1/9/2009     | 0.04 |      |
| 12/22/2005 | 0.19 |            |      | 1/23/2007 | 0.20 | 12/12/2006 | 0.20 |            |      | 12/21/2007 | 0.13 | 11/9/2007  | 0.17 | 1/8/2009     | 0.04 |      |
| 12/21/2005 | 0.19 |            |      | 1/22/2007 | 0.20 | 12/11/2006 | 0.20 |            |      | 12/20/2007 | 0.13 | 11/8/2007  | 0.17 | 1/7/2009     | 0.04 |      |
| 12/20/2005 | 0.19 |            |      | 1/21/2007 | 0.20 | 12/10/2006 | 0.20 |            |      | 12/19/2007 | 0.13 |            |      | 1/6/2009     | 0.04 |      |
| 12/19/2005 | 0.19 |            |      | 1/20/2007 | 0.20 | 12/9/2006  | 0.20 |            |      | 12/18/2007 | 0.13 |            |      | 1/5/2009     | 0.04 | 2006 |
| 12/18/2005 | 0.19 |            |      | 1/19/2007 | 0.20 | 12/8/2006  | 0.20 |            |      | 12/17/2007 | 0.13 |            |      | 1/4/2009     | 0.04 | 38.5 |
| 12/17/2005 | 0.19 |            |      | 1/18/2007 | 0.20 | 12/7/2006  | 0.20 |            |      | 12/16/2007 | 0.13 |            |      | 1/3/2009     | 0.04 |      |
| 12/16/2005 | 0.19 |            |      | 1/17/2007 | 0.20 | 12/6/2006  | 0.20 |            |      | 12/15/2007 | 0.13 |            |      | 1/2/2009     | 0.04 |      |
| 12/15/2005 | 0.19 |            |      | 1/16/2007 | 0.20 | 12/5/2006  | 0.20 |            |      | 12/14/2007 | 0.13 |            |      | 1/1/2009     | 0.04 |      |
| 12/14/2005 | 0.19 |            |      | 1/15/2007 | 0.20 | 12/4/2006  | 0.20 |            |      | 12/13/2007 | 0.13 |            |      | 12/31/2008   | 0.04 |      |
| 12/13/2005 | 0.19 |            |      | 1/14/2007 | 0.20 | 12/3/2006  | 0.20 |            |      | 12/12/2007 | 0.17 |            |      | 12/30/2008   | 0.04 |      |
| 12/12/2005 | 0.39 |            |      | 1/13/2007 | 0.20 | 12/2/2006  | 0.20 |            |      | 12/11/2007 | 0.17 |            |      | 12/29/2008   | 0.04 |      |
| 12/11/2005 | 0.14 |            |      | 1/12/2007 | 0.20 | 12/1/2006  | 0.20 |            |      | 12/10/2007 | 0.17 |            |      | 12/28/2008   | 0.04 |      |
| 12/10/2005 | 0.14 |            |      | 1/11/2007 | 0.20 | 11/30/2006 | 0.20 |            |      | 12/9/2007  | 0.17 |            |      | 12/27/2008   | 0.04 | 2005 |
| 12/9/2005  | 0.14 |            |      | 1/10/2007 | 0.20 | 11/29/2006 | 0.20 |            |      | 12/8/2007  | 0.17 |            |      | 12/26/2008   | 0.04 | 45.0 |
| 12/8/2005  | 0.14 |            |      | 1/9/2007  | 0.20 | 11/28/2006 | 0.20 |            |      | 12/7/2007  | 0.17 |            |      | 12/25/2008   | 0.04 |      |
| 12/7/2005  | 0.14 |            |      | 1/8/2007  | 0.20 | 11/27/2006 | 0.20 |            |      | 12/6/2007  | 0.17 |            |      | 12/24/2008   | 0.04 |      |
| 12/6/2005  | 0.14 |            |      | 1/7/2007  | 0.20 | 11/26/2006 | 0.20 |            |      | 12/5/2007  | 0.17 |            |      | 12/23/2008   | 0.04 |      |
| 12/5/2005  | 0.14 |            |      | 1/6/2007  | 0.20 | 11/25/2006 | 0.20 |            |      | 12/4/2007  | 0.17 |            |      | 12/22/2008   | 1.91 |      |
| 12/4/2005  | 0.14 |            |      | 1/5/2007  | 0.20 | 11/24/2006 | 0.20 |            |      | 12/3/2007  | 0.17 |            |      | 12/21/2008   | 1.91 |      |
| 12/3/2005  | 0.14 |            |      | 1/4/2007  | 0.20 | 11/23/2006 | 0.20 |            |      | 12/2/2007  | 0.17 |            |      | 12/20/2008   | 1.91 |      |
| 12/2/2005  | 0.14 |            |      | 1/3/2007  | 0.20 | 11/22/2006 | 0.20 |            |      | 12/1/2007  | 0.17 |            |      | 12/19/2008   | 1.91 |      |



# HOW TO READ YOUR WATER METER

*For a standard residential connection*

CCWD reads your water meter every other month to determine your water use and water bill.

You can also use the meter to:

- **Monitor your water use**
- **Watch for water leaks**



## Locate Your Water Meter

Locate the water meter on your property, usually located in a concrete box near the street labeled CCWD.

*Note: Be very careful when removing your meter box lid. Use two large screwdrivers – one to stick in the hole and one to pry up the outer edge. Lift the lid just enough to slide it over to the side with your foot. Replace the lid by sliding it back into place.*

*Be careful not to drop the lid on the meter!*

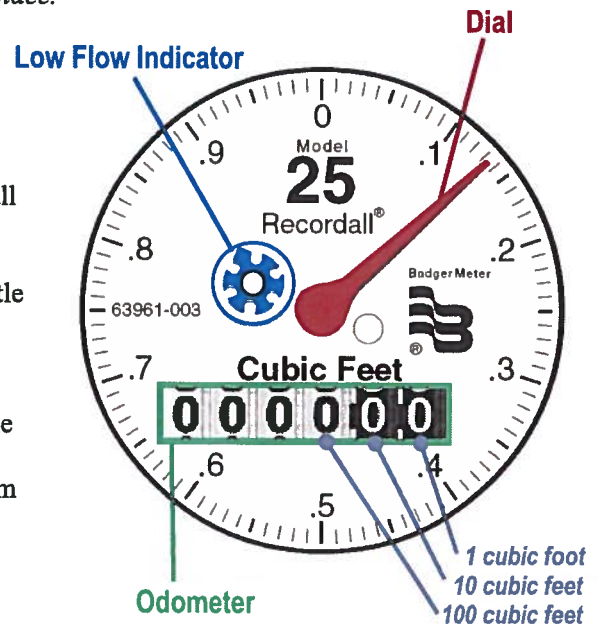
## Anatomy of the Water Meter

Most meters look like the one pictured to the right.

**Dial:** the dial will rotate when water passes through the meter. One full rotation of the dial equals 1 cubic foot of water or 7.48 gallons.

**Low Flow Indicator:** the Low Flow Indicator will rotate with very little water movement. Any water moving through the meter is detected so even small leaks will register.

**Odometer:** the odometer records total water use in a similar way as the odometer in your car records miles driven. The water meter odometer records water use in cubic feet and displays as follows: The digits from right to left represent 1 cubic foot, 10 cubic feet, 100 cubic feet and so on. Like a car odometer, the water meter odometer can not be altered.



## How to Monitor Your Water Use\*

*The following steps will show you how to determine how much water you use over a period of time.*

1. Read the odometer and write it down completely. Then write down the date you read it. After a period of days (we suggest 7 days) read the odometer again and write it down and write down the date.
2. Subtract the first reading from the second reading. This is your water use in cubic feet during the period.
3. Multiply the water use by 7.48. This is your water use in gallons during the period.
4. Divide the water use in gallons by the number of days between readings. This is your average gallons per day during the period.

◆ Water meters measure cubic feet of water used. To convert cubic feet to gallons, multiply the number of cubic feet by 7.48.

◆ CCWD measures water use by units for billing purposes: 1 unit of water billed = 100 cubic feet = 748 gallons.

*\* The worksheet provided on the reverse side will help to calculate your household water use using the steps above.*

## How to Watch for Leaks

Turn off all water indoors and outdoors including sprinklers, ice maker, etc... If the low flow indicator moves, this may indicate a leak in an appliance or pipe. If the meter shows no obvious movement, note the reading on the meter and return in 4 hours to see if there is any change. Note: if you use water during that time, the meter reading will change. If you do notice movement, check all appliances, faucets, toilets and other water sources for drips or leaks. CCWD can provide information on companies providing leak detection services – contact Water Conservation at 925-688-8320.



PHOTOGRAPHER AND DATE OF PHOTOS ASHLEY NEWBRY • December 1, 2015  
FILE NUMBER 63-12017

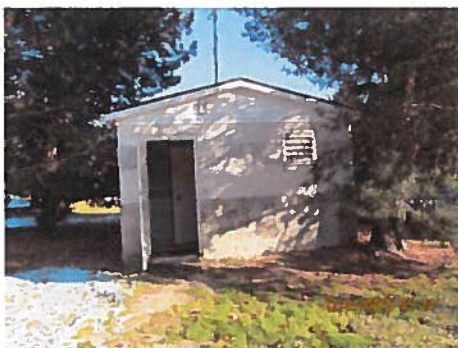
The photos below show City of Eagle municipal well nos. 1-3 which are the points of diversion shared by 63-11413, 63-12448, and 63-12017.



The Brookwood well house (upper left) contains City of Eagle Municipal Well No. 3 (upper center). The well flowmeter is a McCrometer UltraMag (upper right).



The Lexington No. 2 well house (left) contains City of Eagle Municipal Well No. 2 (center). When the well is operational, it utilizes a propeller McCrometer (right).



The Lexington No. 1 well house (left) contains City of Eagle Municipal Well No. 1 (center) drilled in 1991. The well has two distribution lines(right) and two flow meters—one for each pump—which recombine before entering the distribution system.

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FILE NUMBER 63-12017



During the field exam, Ken Acuff, Kellie Rekow and I were easily able to observe the “wildlife” and “wildlife storage” beneficial uses (three photos below).



We also found the “aesthetic” and “aesthetic storage” uses along the landscaped chain of ponds.



We also found it relatively simple to recognize the “recreation” and “recreation storage” beneficial uses. The pedestrian pathway was under maintenance work (center).



At the time of the exam, I also previewed the irrigation headgate (left), where Farmers Union Ditch Co delivers irrigation water to the ponds. We previewed the HOA's irrigation pump house (center) and their well (right) associated with 63-33495.



Lastly, we viewed the 6" City water service (left) to the pond system and the 1" City water service (center) to a small waterfall feature (right).