

State of Idaho  
Department of Water Resources  
**Water Right License**  
WATER RIGHT NO. 37-22958

**PRIORITY:** June 15, 2015

Maximum Diversion Volume: 0.3 AF

It is hereby certified that:

THE BARER FAMILY TRUST C/O STANLEY H & ALTA S BARER TTEES  
3048 E LAUREL HURST DR NE SEATTLE WA 98105

has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated June 15, 2015, and has submitted Proof of Beneficial Use on November 17, 2016. An examination confirms water is diverted from:

**SOURCE:**  
BIG WOOD RIVER

**TRIBUTARY:**  
MALAD RIVER

and a water right has been established as follows:

|                              |                             |                                           |
|------------------------------|-----------------------------|-------------------------------------------|
| <b><u>BENEFICIAL USE</u></b> | <b><u>PERIOD OF USE</u></b> | <b><u>ANNUAL<br/>DIVERSION VOLUME</u></b> |
| AESTHETIC STORAGE            | 01/01 to 12/31              | 0.3 AF                                    |

**LOCATION OF POINT(S) OF DIVERSION:**

BIG WOOD RIVER NW¼SE¼ Sec. 1, Twp 04N, Rge 17E, B.M. BLAINE County  
BIG WOOD RIVER NW¼SE¼ Sec. 1, Twp 04N, Rge 17E, B.M. BLAINE County

**PLACE OF USE:** AESTHETIC 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 | 17E | 1   |    |    |    |    |    |    |    |    |    |    |    |    |    | X  |    |    |        |

**CONDITIONS OF APPROVAL**

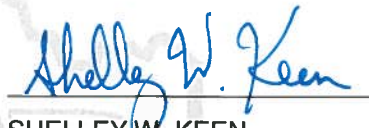
1. Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 37.
2. The two (2) ponds established by the storage of water under this right shall not exceed a total capacity of 0.3 acre-feet or a total surface area of 3,924 square ft.
3. The aesthetic storage use authorized by this right is for two (2) excavated ponds in a natural side-channel of the Big Wood River. This right does not authorize maintenance of an in-stream flow to the ponds nor does it authorize construction to increase or maintain flow to the ponds.
4. Use of water under this right shall be non-consumptive.
5. Ground water right 37-8480 for domestic, irrigation, and aesthetic uses provides water flow through the two (2) ponds authorized by this right.

State of Idaho  
Department of Water Resources  
**Water Right License**  
WATER RIGHT NO. 37-22958

6. Use of water pursuant to this right is either nonconsumptive or the right holder is required to provide ongoing mitigation to offset the depletion of water resulting from the use of this right. Regulation of this right to satisfy the minimum stream flow water rights in the Snake River at Murphy Gage shall not be required.
7. This right is for the use of trust water, and it is subject to review 5 years after its initial approval (November 27, 2015) to re-evaluate the availability of trust water for the authorized use and to re-evaluate the public interest criteria for reallocating trust water.
8. Place of use is located within Lot 1 Riverwoods Subdivision.
9. Point of diversion is located within Lot 1 Riverwoods Subdivision.

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. The water right confirmed by this license is subject to all prior water rights and shall be used in accordance with Idaho law and applicable rules of the Department of Water Resources.

Signed this 4<sup>th</sup> day of January, 2017.

  
\_\_\_\_\_  
SHELLEY W. KEEN  
Water Rights Section Manager

State of Idaho  
Department of Water Resources  
**Attachment to Water Right License**  
37-22958

This map depicts the AESTHETIC STORAGE place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

17E



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

0 0.035 0.07 0.14 Miles





State of Idaho

## DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Web Site: [www.idwr.idaho.gov](http://www.idwr.idaho.gov)

GARY SPACKMAN  
Director

C.L. "BUTCH" OTTER  
Governor

January 5, 2017

THE BARER FAMILY TRUST  
C/O STANLEY H & ALTA S BARER TTEES  
3048 E LAUREL HURST DR NE  
SEATTLE WA 98105

RE: License No. 37-22958

### Issuance of License

Dear Water Right Holder(s):

The Department of Water Resources has issued the enclosed Water Right License confirming that a water right has been established in accordance with your permit. Please be sure to thoroughly review the conditions of approval and remarks listed on your license.

The license is a PRELIMINARY ORDER issued by the Department pursuant to section 67-5243, Idaho Code. It can and will become a final order without further action by the Department unless a party petitions for reconsideration or files an exception and/or brief within fourteen (14) days of the service date as described in the enclosed information sheet.

Please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Failure to report these changes could result in a \$100 late filing fee. Contact any office of the Department or visit the Department's homepage on the Internet to obtain the proper forms and instructions.

If you have any questions, please contact me at 208-287-4951.

Sincerely,

Pamela Skaggs  
Water Rights Supervisor

Enclosure(s)

cc: BROCKWAY ENGINEERING PLLC  
WATER DISTRICT #37

**CERTIFICATE OF SERVICE**

I hereby certify that on January 6, 2017 I mailed a true and correct copy, postage prepaid, of the foregoing PRELIMINARY ORDER (**Approved License**) to the person(s) listed below:

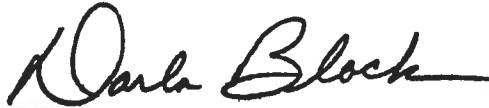
**RE: WATER RIGHT NO.**

**37-22958**

**BROCKWAY ENGINEERING PLLC  
C/O HATTIE ZOBOTT  
2016 N WASHINGTON ST STE 4  
TWIN FALLS ID 83301**

**THE BARER FAMILY TRUST  
C/O STANLEY H & ALTA S BARER TTEES  
3048 E LAUREL HURST DR NE  
SEATTLE WA 98105**

**WATER DISTRICT #37  
KEVIN D LAKEY  
107 W 1<sup>ST</sup>  
SHOSHONE ID 83352**

A handwritten signature in black ink, reading "Darla Block", is written over a horizontal line.

Darla Block  
Technical Records Specialist

## **EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER**

(To be used in connection with actions when a hearing was **not** held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "**Preliminary Order**" issued by the department pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:**

### **PETITION FOR RECONSIDERATION**

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. **Note: the petition must be received by the department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

### **EXCEPTIONS AND BRIEFS**

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

### **REQUEST FOR HEARING**

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

### **ORAL ARGUMENT**

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

## **CERTIFICATE OF SERVICE**

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

## **FINAL ORDER**

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:

- (a) The petition for reconsideration is disposed of; or
- (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

## **APPEAL OF FINAL ORDER TO DISTRICT COURT**

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

- i. A hearing was held,
- ii. The final agency action was taken,
- iii. The party seeking review of the order resides, or
- iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

## Hersley, Jean

---

**From:** Hersley, Jean  
**Sent:** Friday, January 06, 2017 9:34 AM  
**To:** 'HATTIE.ZOBOTT@BROCKWAYENG.COM'; 'Kevin Lakey'  
**Subject:** License for 37-22958  
**Attachments:** Barer Family Trust License

This will go out in today's mail.

*Jean Hersley  
Idaho Dept Water Resources  
Technical Records Specialist II  
208-287-4942*

## MEMORANDUM

TO: Water Right Files 37-22958

FROM: Daniel Nelson – Staff Hydrologist

DATE: December 28, 2016

SUBJECT: Licensing Review of Water Right 37-22958

This field exam was performed by Certified Field Examiner G. Erick Powell of Brockway Engineering. Mr. Powell reported that 0.3 af of Big Wood River water is diverted in the NW1/4 of the SE1/4 of Section 1, Township 4 North, Range 17 East in Blaine County. The water is used to fill two small ponds for aesthetic storage in the same legal description.

### History:

In 1998, a field examination was performed on this property by Department staff for permit 37-8480. Water right 37-8480 is a ground water right for domestic, aesthetic, and irrigation uses. During this field examination, the field examiner found the well filled 3 ponds, provided flow through water, and covered the evaporation losses. The field examiner described the aesthetic use as follows:

The well on Lot 1 is used primarily during the irrigation season. The groundwater is discharged into Pond #1. From Pond #1 the water diverts into a ditch. The ditch runs approximately 300 feet before it dumps into a second ditch. The second ditch appears to have the potential of receiving water from the Big Wood River (unknown flow rate in the second ditch). The second ditch then dumps into Ponds #2 and #3. From Pond #3 the water is diverted to other ditches and ponds throughout the subdivision.

In 2012, another field examination on water right 37-21150 was performed on a neighboring property. Water right 37-21150 used the same ditch that emptied into Ponds #2 and #3 in the field exam narrative for water right 37-8480. The field examiner describes the ditch as follows:

The pond lies within a side-natural channel of the Big Wood River. Once the water leaves the pond, it eventually makes it back to the Big Wood.

Water right 37-21150 was licensed for on-stream storage with the source being the Big Wood River.

In 2015, an application for permit was filed for Ponds #2 and #3 described in the narrative for water right 37-8480 from the Big Wood River, and a permit was issued for on-stream aesthetic storage on the Big Wood River, and given the permit number 37-22958. The application stated that the ponds for permit 37-22958 were on the same “natural channel” as the pond described in water right 37-21150.

Therefore, taking this history into account, I agree that the ditch described in 37-8480 should be considered a side-natural channel of the Big Wood River.

**Points of Diversion:**

On the field exam map, Mr. Powell placed the points of diversion on the upstream side of the ponds. The true point of diversion should be on the downstream side of the ponds where the dams are located. The application for permit also shows the points of diversion on the upstream side of the ponds instead of the downstream side. This shouldn't be an issue, since the entire tax parcel is in only one 40 acre tract. The legal description for the points of diversion will not change, but I will put them in the property place during the licensing of the permit.

**Place of Use:**

The map provided by Mr. Powell is very similar to the map created by the field examiner for water right 37-8480. I agree with the location of the ponds.

**Diversion Rate:**

These are considered on-stream ponds, so no diversion rate is required.

**Surface Area of the Ponds:**

Condition #5 on permit 37-22958 states the following:

The (2) ponds established by the storage of water under this right shall not exceed a total capacity of 0.3 acre-feet or a total surface area of 2,200 square ft.

The field examination that was done on water right 37-8480 found that surface area for Pond # 2 was 40 feet by 40 feet or 1,600 square feet, and the surface area for Pond #3 was 30 feet by 40 feet or 1,200 square feet. All though the calculations appear a little rough for calculating the surface area, the field exam did provide a total surface area for the two ponds of 2,800 square feet. The resolution for the aerial imagery in 1992 is not very precise, but using that imagery, I created a shape file for Pond # 2 at 1,524 square feet, and Pond #3 at 1,260 square feet for a total of 2,784 square feet. The field examiner's calculations were very close to what I could create in the Department's mapping tools with a 1992 aerial photo.

Mr. Powell stated in his field report that the Upper Pond (Pond #2) had a surface area of 2,614 square feet, and Lower Pond (Pond #3) had a surface are of 1,310 square feet for a total of 3,924 square feet.

I was able to create shape files in our mapping program to closely match Mr. Powell's calculations. I believe that Mr. Powell is very close to actual size of the ponds at the time he performed his field examination. A review of the 1992 aerial imagery suggests that the ponds were actually smaller in 1992 than in later imagery, so the information supplied by the field examiner for water right 37-8480 was correct at the time they performed the field examination in 1998. Please see the 3 maps attached to this memo for comparison between 1992 and the present.

It appears from the imagery, that ponds have remained fairly constant in size since 2004, and I feel that Mr. Powell's assessment of the surface area of the two ponds of 3,924 square feet is reasonable. Unfortunately, the surface area of the ponds is in direct conflict with the condition that limits the surface area of the pond to 2,200 square feet. The 2,200 feet came from an estimate in the application for permit, but the application for permit also included the field exam for 37-8480 which describes the ponds surface area as being 2,800 square feet.

The two ponds were constructed with a surface area of greater than 2,200 back in the 1990's. Other than normal cleaning out of the ponds, the surface area of the ponds have remained relatively constant since 2004, and no enlargement was made after the application for permit was filed in 2015. The condition on the permit put the permit holder of water right 37-22958 in violation of the condition at the time the permit was issued. The condition should have been issued with the current surface area of the ponds, and not an estimate that didn't even match the surface area described in the field examination done by the Department in 1998. Therefore, I recommend this condition be corrected to the area found by Mr. Powell of 3,924 square feet.

#### **Diversion Volume:**

Mr. Powell recommended a diversion capacity of the ponds of 0.3 af. He used the standard practices to calculate the pond capacities. The field examiner for water right 37-8480 allotted 0.28 af for evaporation of which 0.23 af was allocated to Pond #2 (Upper Pond) and Pond #3 (Lower Pond). I performed a calculation using the Department's pond spreadsheet for the evaporation, and found that at the current size of the ponds, the total evaporation would be 0.19 af. Both water right 37-8480 and this permit were issued as non-consumptive water rights based the following direction from the Snake River Plain Area Moratorium Order which states in part:

The Director determines that the development and use of the water pursuant to an application will have no effect on prior surface and ground water rights because of its location, insignificant consumption of water or mitigation provided by the applicant to offset injury to other rights.

With an annual evaporation rate of less than 0.19 af per year, this permit would comply with the direction of the order, and this permit should be licensed as a non-consumptive water right.

**Overlap:**

Water right 37-8480 was licensed for aesthetic uses with a diversion rate of 1.05 cfs to provide aesthetic use to fill 3 ponds, provide flow through the ponds, and evaporation from the ponds. The 3 ponds were small enough that the 24 hour rule was applied, so no storage component was placed on the water right license. The field exam for water right 37-8480 also stated that the ponds intercepted shallow ground water, so a portion of the ponds could be filled with shallow ground water during certain times of the year. The domestic use and the irrigation use are diverted directly out of the well, so those two uses should not affect this permit, since none of that water is diverted through the ponds.

This permit is for 2 of the 3 ponds described in water right 37-8480. Big Wood River water cannot be diverted to the third pond described in water right 37-8480, so only the two ponds described in water right 37-8480 as Pond #2 (Upper Pond) and Pond #3 (Lower Pond) are actually overlapping this permit.

**Conditions:**

Conditions 1 (R05) and 6 (935) will be carried forward to licensing. Condition 2(X59) was altered in the permit, and provided additional information. Condition 2 will be replaced with condition X59, X60, and separate condition without a code to supply the additional information. Condition 3 (220) will be corrected to add a surface area of 3,924 square feet as discussed above. We will use the standard condition for Condition 4 (027). Condition 5 (933) will be updated to include the date of permit approval. Condition 7 will be rewritten as follows:

Ground water right 37-8480 for domestic, irrigation, and aesthetic uses provides water for flow through the two (2) ponds authorized by this right.

SENW

SWNE

Upper Pond Per Certified Field Report  
Approximately 2,614 sq. ft. surface area  
in 2015

Lower Pond Per Certified Field Report  
Approximately 1,310 sq. ft. surface area  
in 2015

04N17E

NWSE

### Permit 37-22958 -- License Review Map

This aerial photo is a 2011 aerial photo of the property. The two yellow circles represent the size of the ponds during the field exam for this permit. I could recreate the pond size found the field examiner from this aerial photo. The total surface area found was 3,924 sq. ft or 0.09 acres.

NESW

SESW

SWSE

SENW

SWNE

Pond #2 per 37-8480 field report.  
Approximately 1,524 sq. ft. surface area

Pond #3 per 37-8480 field report.  
Approximately 1,260 sq. ft. surface area

1

04N17E

NWSE

NESW

### Permit 37-22958 -- License Review Map

This aerial photo is a 1992 aerial photo of the property. The two red circles are what appear to be the ponds associated with this permit. The pond size matches pretty closely to the size described in the 1998 field exam report for water right 37-8480.

SESW

SWSE

SENW

SWNE

Pond #2 per 37-8480 field report.  
Approximately 1,524 sq. ft. surface area  
in 1992

Upper Pond Per Certified Field Report  
Approximately 2,614 sq. ft. surface area  
in 2015

Pond #3 per 37-8480 field report.  
Approximately 1,260 sq. ft. surface area  
in 1992

Lower Pond Per Certified Field Report  
Approximately 1,310 sq. ft. surface area  
in 2015

1

04N17E

NWSE

NESW

### Permit 37-22958 -- License Review Map

This aerial photo is a 2011 aerial photo of the property. The two red circles are what appear to be the ponds associated with water right 37-8480 in 1992. The two yellow circles represent the size of the ponds during the field exam for this permit. I could recreate the pond size found the field examiner from this aerial photo.

SESW

SWSE

## Evaporation Loss Calculations

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the annual evaporation losses from a pond.

|             |            |
|-------------|------------|
| FILE NUMBER | 37-22958   |
| REVIEWER    | Dan Nelson |
| DATE        | 12/28/2016 |

|                      |
|----------------------|
| User Input           |
| Calculated value     |
| Formula Explanations |

|                                                                              |
|------------------------------------------------------------------------------|
| The acronyms used on the Kimberly Research Center website are defined below: |
| P = Precipitation                                                            |
| ET= Evapotranspiration                                                       |
| P <sub>d</sub> = Precipitation deficit                                       |
| P <sub>d</sub> =ET-P                                                         |

### USING THIS SPREADSHEET

Use the link below to access the Kimberly Research Center website. This website provides the Precipitation Deficit for a station most representative of the pond under examination. The Precipitation Deficit is the total amount of free water surface evaporation minus the precipitation for a given area, which gives the total amount of evaporative losses incurred by the pond. There are several weather sites that are used throughout the state. IDWR staff can find the nearest site using Arc Map. The shape file containing the sites can be found at <X:/Spatial/Climate/ETIdahostations.shp>.

### Instructions:

1. Use the link below to navigate to ET Idaho 2012.
2. Select the station which is most representative to your pond location.
3. Click Submit Query.
4. Under "Land Covers with Evapotranspiration Estimates," select "Open Water - Shallow Systems (ponds, streams)" or "Open Water - small stock ponds" depending on the pond size.
5. Click the link to "Precipitation Deficit."
6. Reference and copy (ctrl + C) the first subheading "Mean" values.
7. Click the "Paste Values from ET Idaho" button. The table will automatically enter a zero (0) for any negative precipitation deficit values.

Found at: <http://data.kimberly.uidaho.edu/ETIdaho/>

### Precipitation Deficit

Station: Twin Falls 2 NNE (NWS -- 109294)

| Month     | mm/day <sup>1</sup> | Days per month | mm/Month |
|-----------|---------------------|----------------|----------|
| Jan       |                     | 31             | 0.00     |
| Feb       | -1.28               | 28             | 0.00     |
| March     | -0.73               | 31             | 0.00     |
| April     | 0.39                | 30             | 11.70    |
| May       | 1.82                | 31             | 56.42    |
| June      | 2.79                | 30             | 83.70    |
| July      | 3.47                | 31             | 107.57   |
| August    | 4.68                | 31             | 145.08   |
| September | 3.97                | 30             | 119.10   |
| October   | 2.65                | 31             | 82.15    |
| November  | 1.28                | 30             | 38.40    |
| December  | -0.45               | 31             | 0.00     |

**PLEASE NOTE:** The seasonal average for precipitation deficit should not be used for calculations because precipitation often exceeds evaporation during wetter months of the year. If the pond is kept full, excess precipitation during wetter months does not serve to refill the pond during drier months.

For example, see Sandpoint KSPT (NWS -- 108137), the annual precipitation deficit is -106 mm. However, April through September have positive precipitation deficit values. To properly estimate the annual volume of water necessary to refill a pond due to evaporation losses, the table will automatically enter a zero (0) for each month that the precipitation value is reported as a negative value.

As described above, precipitation offsets evaporation in winter months, so the net effect is that wintertime precipitation deficit is usually zero.

Total mm/year = 644.12

$[(\text{mm/yr}) \div (\text{convert to feet})] \times (\text{Surface area of pond, in acres}) = \text{Evaporation Loss in Acre Feet}$

( 644.12 ÷ 304.8 ) X 0.09 = 0.190 AFA

# ET<sub>Idaho</sub> 2012 -- Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to [robison@kimberly.uidaho.edu](mailto:robison@kimberly.uidaho.edu) Copyright 2012, University of Idaho.

## Hailey Ranger Stn (NWS -- 103942)

Statistics based on thirty year normal spans 1932 to 1981 years

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

| Open water - small stock ponds                                   |        |       |      |      |      |      |      |      |      |      |       |       |                             |                                 |        |
|------------------------------------------------------------------|--------|-------|------|------|------|------|------|------|------|------|-------|-------|-----------------------------|---------------------------------|--------|
| Precipitation Deficit ( <a href="#">Click here for a graph</a> ) |        |       |      |      |      |      |      |      |      |      |       |       |                             |                                 |        |
|                                                                  | Jan    | Feb   | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov   | Dec   | Growing Season <sup>a</sup> | Non Growing Season <sup>b</sup> | Annual |
| Mean <sup>j</sup>                                                | mm/day |       |      |      |      |      |      |      |      |      |       |       | mm                          |                                 |        |
| Monthly <sup>c</sup>                                             | -1.28  | -0.73 | 0.39 | 1.82 | 2.79 | 3.47 | 4.68 | 3.97 | 2.65 | 1.28 | -0.45 | -1.72 | 515                         | 0                               | 515    |
| 15-Day Moving Average <sup>d</sup>                               | -1.37  | -0.71 | 0.33 | 1.98 | 2.83 | 3.60 | 4.79 | 3.96 | 2.67 | 1.30 | -0.66 | -1.71 |                             |                                 |        |
| 7-Day Moving Average <sup>e</sup>                                | -1.31  | -0.71 | 0.37 | 1.91 | 2.86 | 3.51 | 4.75 | 3.96 | 2.68 | 1.32 | -0.51 | -1.73 |                             |                                 |        |
| 3-Day Moving Average <sup>f</sup>                                | -1.30  | -0.72 | 0.39 | 1.85 | 2.82 | 3.48 | 4.69 | 3.97 | 2.67 | 1.30 | -0.45 | -1.72 |                             |                                 |        |
| Standard Deviation <sup>k</sup>                                  | mm/day |       |      |      |      |      |      |      |      |      |       |       | mm                          |                                 |        |
| Monthly <sup>c</sup>                                             | 1.75   | 1.08  | 1.20 | 0.90 | 1.65 | 1.08 | 0.83 | 1.40 | 0.93 | 1.05 | 1.08  | 2.60  | 131                         | 0                               | 131    |
| 15-Day Moving Average <sup>d</sup>                               | 2.02   | 1.41  | 1.23 | 1.22 | 1.53 | 1.44 | 0.64 | 1.38 | 1.19 | 1.03 | 1.60  | 2.63  |                             |                                 |        |
| 7-Day Moving Average <sup>e</sup>                                | 2.82   | 2.02  | 1.59 | 1.70 | 1.86 | 2.02 | 0.93 | 1.64 | 1.48 | 1.43 | 2.05  | 3.57  |                             |                                 |        |
| 3-Day Moving Average <sup>f</sup>                                | 3.81   | 2.80  | 2.18 | 2.48 | 2.40 | 2.63 | 1.43 | 2.14 | 2.00 | 1.99 | 2.77  | 4.63  |                             |                                 |        |
| 20% Exceedance <sup>l</sup>                                      | mm/day |       |      |      |      |      |      |      |      |      |       |       | mm                          |                                 |        |
| Monthly <sup>c</sup>                                             | -0.32  | 0.29  | 1.11 | 2.53 | 3.92 | 4.42 | 5.21 | 4.50 | 3.25 | 1.97 | 0.43  | -0.41 | 602                         | 0                               | 602    |
| 15-Day Moving Average <sup>d</sup>                               | 0.42   | 0.71  | 1.63 | 3.50 | 4.68 | 4.99 | 5.42 | 5.00 | 3.85 | 2.57 | 0.84  | 0.42  |                             |                                 |        |
| 7-Day Moving Average <sup>e</sup>                                | 0.73   | 1.11  | 1.91 | 3.86 | 4.94 | 5.45 | 5.56 | 5.21 | 4.11 | 2.94 | 1.32  | 0.63  |                             |                                 |        |
| 3-Day Moving Average <sup>f</sup>                                | 0.89   | 1.27  | 2.40 | 4.27 | 5.41 | 5.99 | 5.99 | 5.48 | 4.34 | 3.15 | 1.43  | 0.75  |                             |                                 |        |
|                                                                  | mm/day |       |      |      |      |      |      |      |      |      |       |       | mm                          |                                 |        |