WATER TRANSFER WORKING GROUP PROJECT DESCRIPTION

APPLICATION NO./COURT CLAIM NO.
Water Budget Neutral Request No. G4-35584 with mitigation from Trust Water Right No. CS4-02255(A)CTCL@2

APPLICANT NAME
Mark & Jane Rattray

CONTACT NAME
Kurt Walker - Ecology

TELEPHONE NO.
509-454-4237

WATER RIGHT HOLDER’S NAME (if different)
Mitigation with SwiftWater Ranch LLC Trust Water Right

DATE OF APPLICATION
September 28, 2012

PRIORITY DATE
New use mitigated by trust water right with priority date of June 30, 1890

WATER SOURCE:
Well (Ecology Tag No. ABP016)

CROP:
Lawn or noncommercial garden

INSTANTANEOUS QUANTITY:
ANNUAL QUANTITY:
0.414 acre-feet/year (afy)

PERIOD OF USE:
Continuous for single indoor domestic connection and irrigation season for lawn and garden

PLACE OF USE:
Parcel No. 528536, located within portions of NE¼SE¼ and SE¼SE¼ Section 26, T. 20 N., R. 16 E.W.M.

PURPOSE OF USE:
Single domestic and Irrigation of 500 ft² lawn or garden

IRRIGATION METHOD:

CONSUMPTIVE USE CALCULATION:

Indoor use: One residential connection at 350 gallons per day (gpd) used continuously year round equates to 0.392 afy of water use, or:
(350gpd per connection) x (365 days) x (one connection) x (1ac-ft/325,851gal) = 0.392 afy
Consistent with WAC 173-539A-050(3), 30% of domestic in-house use on a septic system is consumptively used, therefore:
Indoor consumptive use = (0.392afy) x (0.30) = 0.118 afy

Outdoor use: The requestor proposes to irrigate 500 ft² of lawn and garden. Using a crop irrigation requirement of 18.11 in/yr (or 1.51 ft/yr) for pasture/turf near Cle Elum from the Washington Irrigation Guide and an application efficiency of 80%, the total outdoor irrigation water use is 0.022 afy, or:
[(1.51 ft/yr) ÷ 0.80] x (500 ft² ÷ 43560 ft²/ac) = 0.022 afy
Consistent with WAC 173-539A-050(3), 90% of outdoor use is consumptively used, so:
Outdoor consumptive use = (0.022 afy) x (0.90) = 0.019 afy

As a result consumptive use (CU) for the project totals to 0.137 afy
(CU April 1 to Aug 31 is 0.065 ac-ft and CU Sept 1 to March 31 is 0.072 ac-ft)

For detailed analysis of month-to-month uses see spreadsheet below.
NARRATIVE DESCRIPTION OF PROJECT:

The requestor proposes to offset the 0.137 afy of consumptive use for the project (one residential connection and 500 ft² of lawn and garden) with 0.137 afy of mitigation water acquired from Trust Water Right No. CS4-02255(A)CTCL@2. During the irrigation season, 0.075 ac-ft is assigned to the USBR-Ecology Exchange Contract (Contract No. 09XX101700) and released between September 15 and March 31 to address out-of-season impacts along the Yakima River. Additionally, to address out-of-season flow impacts to the Teanaway River, $500 will be placed into an account to be used for one or more upstream or headwater riparian corridor projects.

Review of the local area hydrogeology suggests that the proposed groundwater withdrawals under G4-35584 will result in flow impacts to the lower Teanaway River and Yakima River. Copies of the Draft Hydrogeology Memo for the subject water budget neutral request are available upon request from Ecology. For a copy, please contact Kurt Walker at (509) 454-4237, or kwal461@ecy.wa.gov.
**Location Map for G4-35584**

![Location Map](image)

**Total and Consumptive use under G4-35584**

**SwiftWater In-basin Mitigation: Calculator for Consumptive Use, Contract Assignment, and Mitigation Tracking**

**WRTS No. G4-35584 (Rattray)**

**Assumptions for Irrigation:**
- **Assumed efficiency**: 0.8 total use per ERU 350 gpd
- **% CU for outdoor use**: 0.9 per WAC total use per ERU
- **Square feet to irrigate**: 500
- **Acreage**: 0.011

**Assumptions for Domestic:**
- **% CU**: 0.3 for septic system

**Irrigation portion:**

<table>
<thead>
<tr>
<th>Month</th>
<th>WIG (in/yr)</th>
<th>TIR per ac (AFY/ac)</th>
<th>TIR (afy)</th>
<th>CU (afy)</th>
<th>Total CU (afy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Feb</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Mar</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Apr</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>May</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Jun</td>
<td>3.34</td>
<td>0.3479</td>
<td>0.004</td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Jul</td>
<td>6.39</td>
<td>0.1771</td>
<td>0.008</td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Aug</td>
<td>4.79</td>
<td>0.4900</td>
<td>0.006</td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Sept</td>
<td>3.47</td>
<td>0.3615</td>
<td>0.004</td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Oct</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Nov</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Dec</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.0033</td>
</tr>
<tr>
<td>Total</td>
<td>18.11</td>
<td>0.022</td>
<td>0.015</td>
<td>0.392</td>
<td>0.118</td>
</tr>
</tbody>
</table>

**Results:**
- **Total CU**: 0.137 AFY
- **Total use**: 0.454 AFY
- **Dirt of WBN form: shaded cells= contract water**
- **For WBN form:**
<table>
<thead>
<tr>
<th>Total CU</th>
<th>Total use</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.137</td>
<td>0.454</td>
</tr>
</tbody>
</table>

**For Contract form:**
- **Contract cost**: $59.40
- **CU (April 1 to Sept 15)**: 0.072 AFY ($22 per af of assigned water for 36 years)
- **CU (Sept 16 to March 31)**: 0.075 AFY
- **Contract water**: 0.075 AFY
- **Total to add to IF at Parker**: 0.090 AFY
- **Total to debit from TWR**: 0.137 AFY

**Exchange Contract Section 14(c)(1)**

**Tributary TWR; see Contract Section 14(c)(1)**