# WATER TRANSFER WORKING GROUP PROJECT DESCRIPTION

**APPLICATION NO./COURT CLAIM NO.**
Water Budget Neutral Request No. G4-35597 with mitigation from Trust Water Right No. CS4-05259CL@2sb7

**APPLICANT NAME**
Jim Reed

**CONTACT NAME**
Kurt Walker - Ecology

**TELEPHONE NO.**
509-454-4237

**WATER RIGHT HOLDER’S NAME (if different)**
Mitigation with Suncadia Trust Water Right

**DATE OF APPLICATION**
January 31, 2013

**PRIORITY DATE**
New use mitigated by trust water right with priority date of October 30, 1884

**WATER SOURCE:**
Well (Ecology Tag No. ALF420)

**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. 17672, located with the NW¼ of Section 22, T. 20 N., R. 15 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:

(350 gpd per connection) x (365 days) x (one connection) x (1.0 ac-ft/325,851 gal) = 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 = (0.392 afy) 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 ÷ 43,560 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 Mar 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. CS4-05259CL@2sb7. During the irrigation season, 0.072 ac-ft is assigned to the USBR-Ecology Exchange Contract (Contract No. 09XX101700) and released between Sept 1 and Mar 31 to address out of season impacts along the Yakima River. In addition, consistent with the Exchange Contract, Ecology plans to assign 0.024 ac-ft of the Trust Water Right to be managed within the Trust Water Right Program for instream flow purposes to benefit the Yakima River.

The proposed well for the new use is to be located in an area that needed additional information ("yellow area") to determine the suitability of the Suncadia Trust Water Rights for use as mitigation to offset the new use. Review of the local area hydrogeology suggests that pumping from under G4-35597 would result in flow impacts to Crystal Creek and the Yakima River. Copies of the Draft Hydrogeology Memo for the subject water budget neutral request are available on request from Ecology. For a copy, please contact Kurt Walker at (509) 454-4237, kwal461@ecy.wa.gov.

WTWG Project form
Locatoion Map for G4-35597

WBN G4-35597 (Reed) Parcel No. 17672

Total and Consumptive Use under G4-35597
### Consumptive Use Calculator for WBN form and Contract water form

#### Assumptions for Irrigation:
- Assumed efficiency: 0.8
- % CU for outdoor use: 0.9 per WAC
- Square feet to irrigate: 500
- Acreage: 0.011

#### Assumptions for Domestic:
- Total use per ERU: 850 gpd
- Total use per E RU: 0.001074 af per day
- % CU: 0.9 for septic system

#### Irrigation Portion:

<table>
<thead>
<tr>
<th>Month</th>
<th>WIG (in/yr)</th>
<th>TRR per ac (AFY/ac)</th>
<th>TIRR (acyr)</th>
<th>CU (acyr)</th>
<th>Total use (AFY)</th>
<th>CU (AFY)</th>
<th>Total CU (AFY)</th>
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#### Results:
- Total CU: 0.137 AFY
- Total use: 0.418 AFY

#### For WBN form:
- Contract cost: $58.61

#### For Contract form:
- CU (Apr 1 to Aug 31): 0.065 AFY
- CU (Sep 1 to Mar 31): 0.072 AFY
- Contract water: 0.072 AFY

#### Total to debit from TWR:
- 0.161 AFY

### Note:
- Shaded cells = contract water
- Assumes flip-flops start Sept 1 and irrigation season starts April 1
- 1/3 of water assigned to contract.