WATER TRANSFER WORKING GROUP PROJECT DESCRIPTION

APPLICATION NO./COURT CLAIM NO.
Water Budget Neutral Request No. G4-35578 with mitigation from Trust Water Right No. CS4-05259CL@2sb7

APPLICANT NAME
Howard & Navdeep Holt

CONTACT NAME
Kurt Walker - Ecology

TELEPHONE NO.
509-454-4237

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

EMAIL
kwal461@ecy.wa.gov

DATE OF APPLICATION
August 10, 2012

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

WATER SOURCE:
Well

CROP:
Lawn or noncommercial garden

INSTANTANEOUS QUANTITY:

ANNUAL QUANTITY:
0.414 acre-ft/yr

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

PLACE OF USE:
Parcel No. 951118, located within SE¼SW¼ of Section 9, T. 21 N., R. 14 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 ac-ft/yr of water use, or:

\[(350 \text{ gpd per connection}) \times (365 \text{ days}) \times (\text{one connection}) \times (1.0 \text{ ac-ft}/325,851\text{gal}) = 0.392 \text{ afy}\]

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) \times (0.30) = 0.118 ac-ft/yr

**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 ac-ft/yr, or:

\[
[(1.51 \text{ ft/yr}) \div 0.80] \times (500 \text{ ft}^{2} \div 43560 \text{ ft}^{2}/\text{ac}) = 0.022 \text{ ac-ft/yr}
\]

Consistent with WAC 173-539A-050(3), 90% of outdoor use is consumptively used, so:

Outdoor consumptive use = (0.022 ac-ft/yr) \times (0.90) = 0.019 ac-ft/yr

As a result consumptive use (CU) for the project totals to 0.137 ac-ft/yr
(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 ac-ft/yr of consumptive use for the project (one residential connection and 500 ft² of lawn and garden) with 0.137 ac-ft/yr 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 withdrawals under G4-35578 would result in flow impact to Morgan Creek. Copies of the Draft Hydrogeology Memo for the subject area are available on request from Ecology. For a copy, please contact Kurt Walker at (509) 454-4237, kwal461@ecy.wa.gov.
### Consumptive Use Calculator for WBN form and Contract water form: WRTS No. G4-35578 (Holt)

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

**For domestic water use:**
- **Total use per ERU:** 350 gpd
- **% CU:** 0.3

#### 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>
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</thead>
<tbody>
<tr>
<td>Jan</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.033</td>
<td>0.0100</td>
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<tr>
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<tr>
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<td>0.033</td>
<td>0.0100</td>
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<tr>
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<td></td>
<td>0.032</td>
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<tr>
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<td>0.033</td>
<td>0.0097</td>
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<tr>
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<td></td>
<td>0.033</td>
<td>0.0097</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>18.11</strong></td>
<td><strong>1.022</strong></td>
<td><strong>0.019</strong></td>
<td><strong>0.392</strong></td>
<td><strong>0.118</strong></td>
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#### Indoor Domestic portion:

<table>
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<th>Month</th>
<th><strong>CU (AFY)</strong></th>
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<td>Jan</td>
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<tr>
<td>Feb</td>
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<td>Oct</td>
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<tr>
<td>Dec</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>0.137</strong></td>
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</table>

**Results:**
- **Total CU:** 0.137 AFY
- **Total Use:** 0.414 AFY

**For WBN form:**
- **Total CU:** 0.137 AFY
- **Total Use:** 0.414 AFY

**For Contract form:**
- **CU (Apr 1 to Aug 31):** 0.065 AFY
- **CU (Sept 1 to Mar 31):** 0.072 AFY

- **Contract water:** 0.072 AFY
  - Assumes flip-flop starts Sept 1 and irrigation season starts April 1
  - **Contract cost:** $58.61

**Total to add to IF at Parker:**
- 0.024 AFY
  - 1/3 of water assigned to contract.

**Total to debit from TWR:**
- 0.161 AFY
  - (Total CU) + (Total to add to IF at Parker)