

WATER TRANSFER WORKING GROUP PROJECT DESCRIPTION

APPLICATION NO./COURT CLAIM NO.		
Water Budget Neutral Request No. G4-35601 with mitigation from Trust Water Right No. CS4-01467@11sb3a(A)		
APPLICANT NAME	CONTACT NAME	TELEPHONE NO.
Kerry Farnum	Kurt Walker - Ecology	509-454-4237
WATER RIGHT HOLDER'S NAME (if different)		EMAIL
Mitigation with Washington Water Trust (Masterson) Trust Water Right		kwa1461@ecy.wa.gov

DATE OF APPLICATION	PRIORITY DATE
April 25, 2013	New use mitigated by trust water right with priority date of June 30, 1883

WATER SOURCE:	CROP:
well	Lawn or noncommercial garden
INSTANTANEOUS QUANTITY:	ANNUAL QUANTITY:
	0.5 acre-feet/year (afy)
PERIOD OF USE:	
Continuous for single indoor domestic connection and irrigation season (May 1 – Sept 15) for lawn and garden	
PLACE OF USE:	PURPOSE OF USE:
Parcel No. 952195, located within portions of Sections 26, 27, and 35 all in T. 20 N., R. 16 E.W.M.	Single domestic and Irrigation of 2,500 ft ² lawn or garden
IRRIGATION METHOD:	

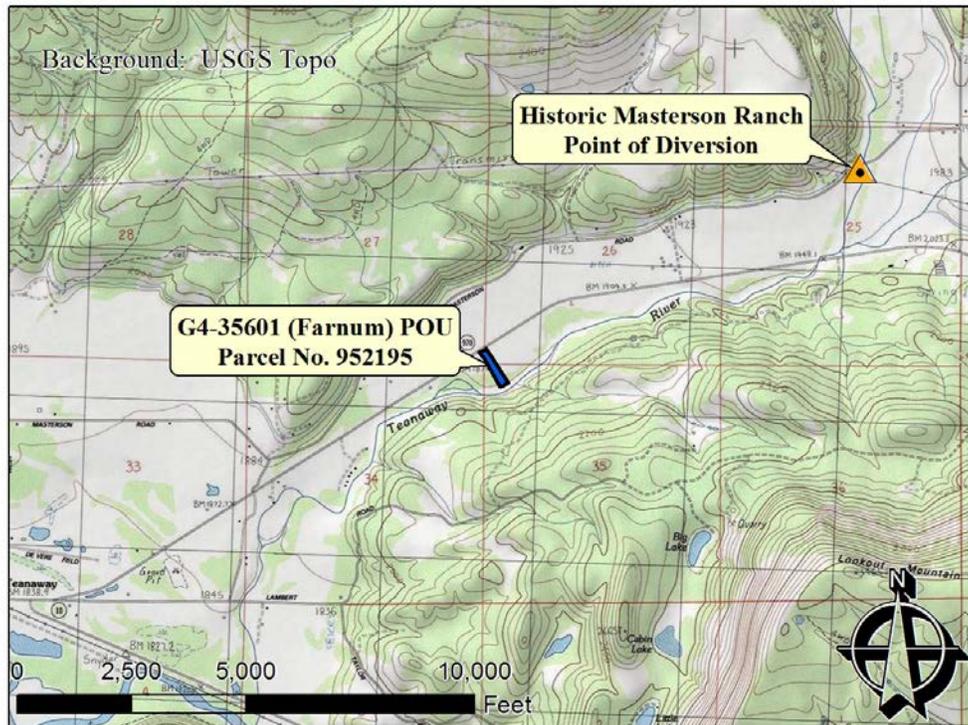
<p>CONSUMPTIVE USE CALCULATION:</p> <p>Indoor use: One residential connection at 350 gallons per day (gpd) used continuously year round equates to 0.392 afy of water use, or: $(350 \text{ gpd per connection}) \times (365 \text{ days}) \times (\text{one connection}) \times (1.0 \text{ ac-ft}/325,851 \text{ gal}) = 0.392 \text{ afy}$ Consistent with WAC 173-539A-050(3), 30% of domestic in-house use on a septic system is consumptively used, therefore: Indoor consumptive use = $(0.392 \text{ afy}) \times (0.30) = \mathbf{0.118 \text{ afy}}$</p> <p>Outdoor use: The requestor proposes to irrigate 2,500 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 0.108 afy, or: $[(1.51 \text{ ft/yr}) \div 0.80] \times (2,500 \text{ ft}^2 \div 43,560 \text{ ft}^2/\text{ac}) = 0.108 \text{ afy}$ Consistent with WAC 173-539A-050(3), 90% of outdoor use is consumptively used, so: Outdoor consumptive use = $(0.108 \text{ afy}) \times (0.90) = \mathbf{0.097 \text{ afy}}$</p> <p>As a result consumptive use (CU) for the project totals to 0.215 afy (CU April 1 to August 31 is 0.128 ac-ft and CU Sept 1 to March 31 is 0.087 ac-ft)</p> <p>For detailed analysis of month-to-month uses see spreadsheet below.</p>

NARRATIVE DESCRIPTION OF PROJECT:

The requestor proposes to offset the 0.215 afy of consumptive use for the project (one residential connection and 2,500 ft² of lawn and garden) with 0.215 afy of mitigation water acquired from Trust Water Right No. CS4-01467@11sb3a(A). During the irrigation season, 0.073 ac-ft is assigned to the USBR-Ecology Exchange Contract (Contract No. 09XX101700) and released between September 16 and March 31 to address out-of-season flow impacts to 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.

The proposed well for the new use is to be located in a “green” area as noted in the current Washington Water Trust (Masterson) Trust Water Right suitability map. Review of the local area hydrogeology suggests that the proposed withdrawals will result in flow impacts to the lower portions of the Teanaway River. For more information regarding flow impacts due to groundwater pumping under the proposed request, please contact Kurt Walker at (509) 454-4237, kwal461@ecy.wa.gov.

Location Map for G4-35601



Total and Consumptive Use Under G4-35601

In-Basin Consumptive Use Calculator for WBN form and Exchange Contract water: WRTS No. G4-35601 (Farnum)						
WWT - Masterson CS4-01467@11sb3a(A)						
Assumptions for Irrigation:			Assumptions for Domestic:			
Assumed efficiency	0.8		total use per ERU	350	gpd	
% CU for outdoor use	0.9	per WAC	total use per ERU	0.001074	af per day	
Square feet to irrigate	2500		#ERU	1		
Acreage	0.057		% CU	0.3	for septic system	
Irrigation portion:			Indoor Domestic portion:			
	WIG (in/yr)	TIR per ac (AFY/ac)	TIR (afy)	CU (afy)	total use (AFY)	CU (AFY)
Jan	0.00				0.0333	0.0100
Feb	0.00				0.0301	0.0090
Mar	0.00				0.0333	0.0100
Apr	0.00				0.0322	0.0097
May	0.00				0.0333	0.0100
Jun	3.34	0.3479	0.020	0.018	0.0322	0.0097
Jul	6.50	0.6771	0.039	0.035	0.0333	0.0100
Aug	4.79	0.4990	0.029	0.026	0.0333	0.0100
Sept	3.47	0.3615	0.021	0.019	0.0322	0.0097
Oct	0.00				0.0333	0.0100
Nov	0.00				0.0322	0.0097
Dec	0.00				0.0333	0.0100
Total	18.11		0.108	0.097	0.392	0.118
Results: shaded cells= contract water						
For WBN form:						
Total CU	0.215 AFY					
Total use	0.500 AFY					
For Contract form:						
CU (April 1 to Sept 15)	0.128 AFY					
CU (Sept 16 to March 31)	0.073 AFY					
Contract water	0.073 AFY					
Contract period from September 16 - March 31						
Total to add to IF at Parker:	0.000 AFY					
Total to debit from TWR:	0.215 AFY					
Tributary TWR; see Exchange Contract Section 14(c)(1) (Total CU)						
contract cost \$57.82 (\$22 per afy of assigned water for 36 years)						