WATER TRANSFER WORKING GROUP PROJECT DESCRIPTION

APPLICATION NO./COURT CLAIM NO.		
Water Budget Neutral Request No. G4-35590 with mitigation from Trust Water Right No. CS4-01467@11sb3a(A)		
APPLICANT NAME Roger and KarenChilds	CONTACT NAME Kurt Walker - Ecology	TELEPHONE NO. 509-454-4237
WATER RIGHT HOLDER'S NAME (if different) Mitigation with Washington Water Trust (Masterson) Trust Water Right		EMAIL kwal461@ecy.wa.gov

DATE OF APPLICATION	PRIORITY DATE
November 14, 2012	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: 0.392 acre-ft/yr (afy)
PERIOD OF USE: Continuous for single indoor domestic connection and irrigation season for lawn and garden	
PLACE OF USE: Parcel No. 949636, located within Section, 25 T. 20 N., R. 16 E.W.M.	PURPOSE OF USE: Single domestic and Irrigation of 150 ft^2 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/325,851gal) = 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 = (0.392 afy) x (0.30) = **0.1176 afy**

Outdoor use: The requestor proposes to irrigate 150 ft^2 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 (150 ft^2 ÷ 43,560 ft^2/ac) = 0.0065 afy
Consistent with WAC 173-539A-050(3), 90% of outdoor use is consumptively used, so:
Outdoor consumptive use = (0.0065 afy) x (0.90) = **0.0058 afy**

As a result consumptive use (CU) for the project totals to 0.123 afy
(CU May 1 to Sept 15 is 0.050 ac-ft and CU Sept 15 to April 30 is 0.073 ac-ft)

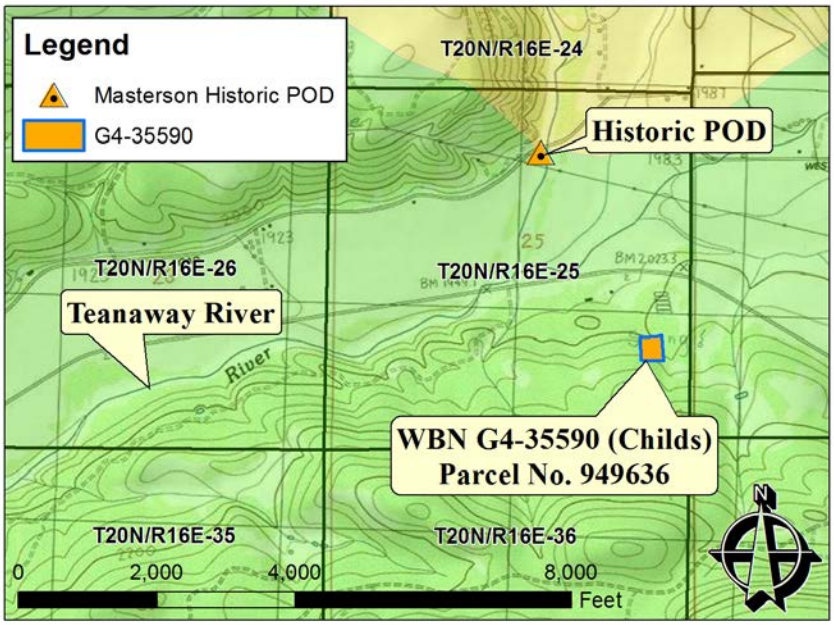
For detailed analysis of month-to-month uses see spreadsheet below.

NARRATIVE DESCRIPTION OF PROJECT:

The requestor proposes to offset the 0.123 afy of consumptive use for the project (one residential connection and 150 ft^2 of lawn and garden) with 0.123 afy of mitigation water acquired from Trust Water Right No. CS4-01467@11sb3a(A). During the irrigation season, 0.068 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 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 cooridor 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 suitabililty map. Review of the local area hydrogeology suggests that the proposed withdrawals will have an effect on the Teanaway River downstream of the historic Masterson diversion. Copies of the Draft Hydrogeology Memo for the subject water budget neutral request is available upon request from Ecology. For a copy, please contact Kurt Walker at (509) 454-4237, or kwal461@ecy.wa.gov.

Location Map for G4-35590



Total and Consumptive use under G4-35590

Consumptive Use Calculator for WBN form and Contract water form: **WRTS No. G4-35590 (Childs)**

In Teanaway Basin Request for 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	150		#ERU	1	
Acreage	0.003		% 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)**	**Total CU (afy)**
Jan	0.00				0.0333	0.0100	0.0100
Feb	0.00				0.0301	0.0090	0.0090
Mar	0.00				0.0333	0.0100	0.0100
Apr	0.00				0.0322	0.0097	0.0097
May	0.00				0.0333	0.0100	0.0100
Jun	3.34	0.3479	0.001	0.001	0.0322	0.0097	0.0107
Jul	6.50	0.6771	0.002	0.002	0.0333	0.0100	0.0121
Aug	4.79	0.4990	0.002	0.002	0.0333	0.0100	0.0115
Sept	3.47	0.3615	0.001	0.001	0.0322	0.0097	0.0108
Oct	0.00				0.0333	0.0100	0.0100
Nov	0.00				0.0322	0.0097	0.0097
Dec	0.00				0.0333	0.0100	0.0100
Total	**18.11**		**0.0065**	**0.0058**	**0.392**	**0.118**	**0.123**

Results: shaded cells= contract water

For WBN form:

Total CU	**0.123**	AFY
Total use	**0.399**	AFY

For Contract form:

CU (May 1 to Sept 15)	**0.050**	AFY
CU (Sept 15 to April 30)	**0.073**	AFY
Contract water	**0.068**	AFY
Total to add to IF at Parker:	**0.000**	AFY
Total to debit from TWR:	**0.123**	AFY

Contract period from September 15 - April 30

(Total CU) + (Total to add to IF at Parker)

contract cost $55.35

($22 per afy of assigned water for 37 years)