

## 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	CONTACT NAME	TELEPHONE NO.
Mark & Jane Rattray	Kurt Walker - Ecology	509-454-4237
WATER RIGHT HOLDER'S NAME (if different)		EMAIL
Mitigation with SwiftWater Ranch LLC Trust Water Right		kwal461@ecy.wa.gov

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 the of NE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> and SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> Section 26, T. 20 N., R. 16 E.W.M.	PURPOSE OF USE: Single domestic and Irrigation of 500 ft <sup>2</sup> lawn or garden
IRRIGATION METHOD:	

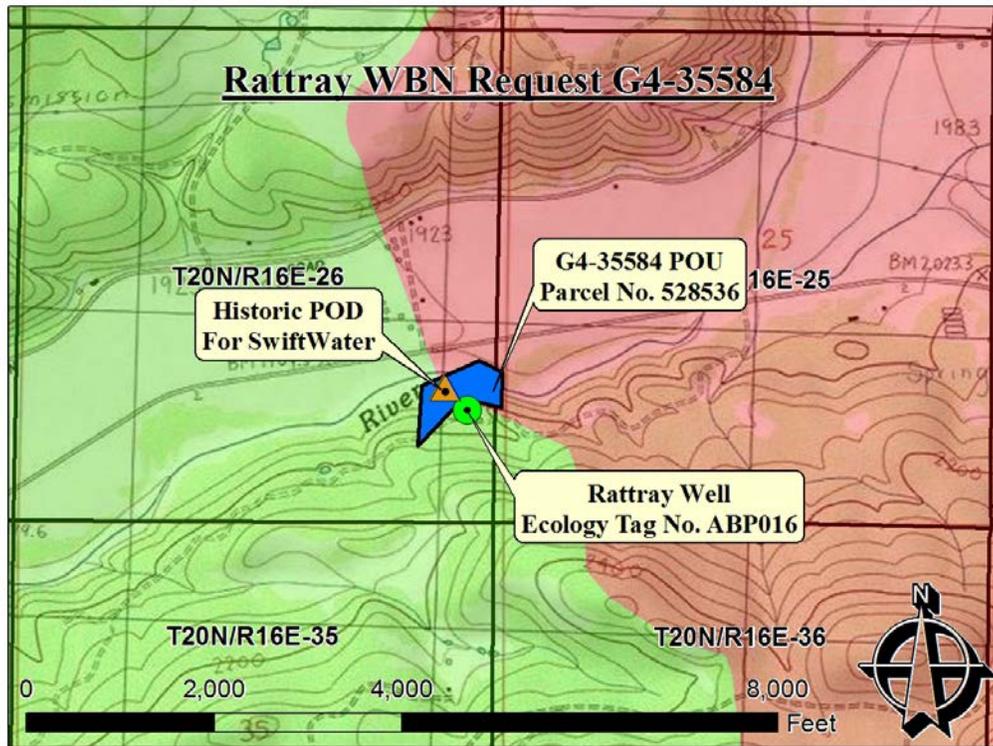
<p>CONSUMPTIVE USE CALCULATION:</p> <p><b>Indoor use:</b> One residential connection at 350 gallons per day (gpd) used continuously year round equates to 0.392 afy of water use, or:  <math>(350\text{gpd per connection}) \times (365 \text{ days}) \times (\text{one connection}) \times (1\text{ac-ft}/325,851\text{gal}) = 0.392 \text{ afy}</math>  Consistent with WAC 173-539A-050(3), 30% of domestic in-house use on a septic system is consumptively used, therefore:  Indoor consumptive use = <math>(0.392\text{afy}) \times (0.30) = \mathbf{0.118 \text{ afy}}</math></p> <p><b>Outdoor use:</b> The requestor proposes to irrigate 500 ft<sup>2</sup> 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:  <math>[(1.51 \text{ ft/yr}) \div 0.80] \times (500 \text{ ft}^2 \div 43560 \text{ ft}^2/\text{ac}) = 0.022 \text{ afy}</math>  Consistent with WAC 173-539A-050(3), 90% of outdoor use is consumptively used, so:  Outdoor consumptive use = <math>(0.022 \text{ afy}) \times (0.90) = \mathbf{0.019 \text{ afy}}</math></p> <p><b>As a result consumptive use (CU) for the project totals to 0.137 afy</b>  <b>(CU April 1 to Aug 31 is 0.065 ac-ft and CU Sept 1 to March 31 is 0.072 ac-ft)</b></p> <p><b>For detailed analysis of month-to-month uses see spreadsheet below.</b></p>
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## NARRATIVE DESCRIPTION OF PROJECT:

The requestor proposes to offset the 0.137 ac-ft of consumptive use for the project (one residential connection and 500 ft<sup>2</sup> of lawn and garden) with 0.137 ac-ft 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



## 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:					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	500				#ERU	1				
Acreage	0.011				% CU	0.3 for septic system				
Irrigation portion:					Indoor Domestic portion:			Total CU		
	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	0.004	0.004	0.0322	0.0097	0.0133			
Jul	6.50	0.6771	0.008	0.007	0.0333	0.0100	0.0170			
Aug	4.79	0.4990	0.006	0.005	0.0333	0.0100	0.0151			
Sept	3.47	0.3615	0.004	0.004	0.0322	0.0097	0.0134			
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			
<b>Total</b>	<b>18.11</b>		<b>0.022</b>	<b>0.019</b>	<b>0.392</b>	<b>0.118</b>	<b>0.137</b>			
<b>Results:</b>										
shaded cells= contract water										
<b>For WBN form:</b>										
Total CU	0.137 AFY									
Total use	0.414 AFY									
<b>For Contract form:</b>										
CU (April 1 to Sept 15)	0.072 AFY									
CU (Sept 16 to March 31)	0.075 AFY									
Contract water	0.075 AFY									
					contract cost	\$59.40				
					(\$22 per afy of assigned water for 36 years)					
					Contract period from Sept 16 to March 31					
Total to add to IF at Parker:	0.000 AFY									
					Tributary TWR; see Exchange Contract Section 14(c)(1)					
Total to debit from TWR:	0.137 AFY									
					(Total CU)					