WATER TRANSFER WORKING GROUP PROJECT DESCRIPTION

APPLICATION NO./COURT CLAIM NO.		
Water Budget Neutral Request No. G4-35572 with mitigation from Trust Water Right No. S4-02255(A)CTCL@2		
APPLICANT NAME Rob & Diane Hill	CONTACT NAME Kurt Walker - Ecology	TELEPHONE NO. 509-454-4237
WATER RIGHT HOLDER'S NAME (if different) Mitigation with SwiftWater Ranch LLC Trust Water Right		EMAIL Kwal461@ecy.wa.gov

DATE OF APPLICATION	PRIORITY DATE
July 11, 2012	New use mitigated by trust water right with priority date of June 30, 1890

WATER SOURCE:	CROP:
well	Lawn or noncommercial garden
INSTANTANEOUS QUANTITY:	ANNUAL QUANTITY: 0.827 acre-ft/yr
PERIOD OF USE: Continuous for single indoor domestic connection and irrigation season for lawn and garden	
PLACE OF USE: Parcel Nos. 21129 and 21130, located within the NW¼ of Section 26, T. 20 N., R. 16 E.W.M.	PURPOSE OF USE: Domestic use and Irrigation of 1,000 ft^2 lawn or garden
IRRIGATION METHOD:	

CONSUMPTIVE USE CALCULATION:

Indoor use: Two residential connections at 350 gallons per day (gpd) used continuously year round equates to 0.784 ac-ft/yr of water use, or:
(350gpd per connection) x (365 days) x (two connections) x (1ac-ft/325,851gal) = 0.784 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 = (0.784 afy) x (0.30) = **0.235 ac-ft/yr**

Outdoor use: The requestor proposes to irrigate 1,000 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 0.043 ac-ft/yr, or:
[(1.51 ft/yr) ÷ 0.80] x (1,000 ft^2 ÷ 43560 ft^2/ac) = 0.043 ac-ft/yr
Consistent with WAC 173-539A-050(3), 90% of outdoor use is consumptively used, so:
Outdoor consumptive use = (0.043 ac-ft/yr) x (0.90) = **0.039 ac-ft/yr**

As a result consumptive use (CU) for the project totals to 0.274 ac-ft/yr (CU April 1 to Aug 31 is 0.130 ac-ft and CU Sept 1 to Mar 31 is 0.144 ac-ft)

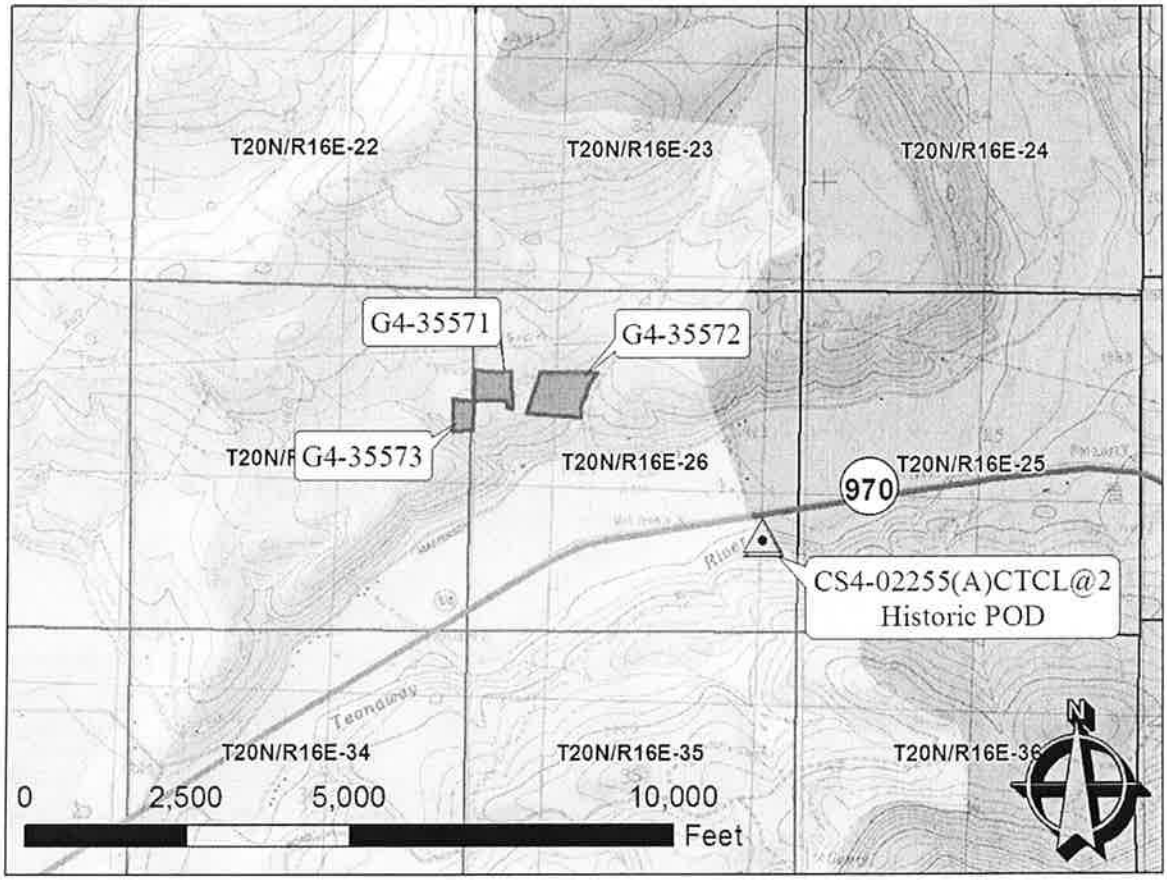
For detailed analysis of month-to-month uses see spreadsheet below.

NARRATIVE DESCRIPTION OF PROJECT:

The requestor proposes to offset the 0.274 ac-ft/yr of consumptive use for the project (two residential connections and 1,000 ft^2 of lawn and garden) with 0.274 ac-ft/yr of mitigation water acquired from Trust Water Right No. S4-02255(A)CTCL@2. During the irrigation season, 0.033 ac-ft is assigned to the USBR-Ecology Exchange Contract (Contract No. 09XX101700) and released between September 15 and October 31 to address out of season impacts along the Yakima River.

The proposed well for the new use is to be located in an "green" area as noted on the SwiftWater Ranch LLC suitability map. Review of the local area hydrogeology suggests that the proposed groundwater withdrawals will impact the Teanaway River. For questions regarding the project area hydrogeology with respect to G4-35572, please contact Kurt Walker at (509) 454-4237, kwal461@ecy.wa.gov.

Project Location with Topographic Map and Mititation Suitability Overlay


T20N/R16E-22
T20N/R16E-23
T20N/R16E-24
G4-35571
G4-35572
T20N/R
G4-35573
T20N/R16E-26
T20N/R16E-25
970
CS4-02255(A)CTCL@2
Historic POD
T20N/R16E-34
T20N/R16E-35
T20N/R16E-36
0
2,500
5,000
10,000
Feet
N

Monthly Total Use, Consumptive Use, and Exchange Contract Assigenment

SwiftWater In-basin Mitigation: Consumptive Use Calculator for WBN form and Contract water form: WRTS No. G4-35572 (Hill)

Use for calculation for late season (9-15 to 10-31) Exchange Contract assignment

Assumptions for Irrigation:

Assumed efficiency	0.8	
% CU for outdoor use	0.9	per WAC
Square feet to irrigate	1000	
Acreage	0.023	

Assumptions for Domestic:

total use per ERU	350	gpd
total use per ERU	0.001074	af per day
#ERU	2	
% 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				0.0666	0.0200	0.0200	
Feb	0.00				0.0602	0.0180	0.0180	
Mar	0.00				0.0666	0.0200	0.0200	
Apr	0.00				0.0644	0.0193	0.0193	
May	0.00				0.0666	0.0200	0.0200	
Jun	3.34	0.3479	0.008	0.007	0.0644	0.0193	0.0265	
Jul	6.50	0.6771	0.016	0.014	0.0666	0.0200	0.0340	
Aug	4.79	0.4990	0.011	0.010	0.0666	0.0200	0.0303	
Sept	3.47	0.3615	0.008	0.007	0.0644	0.0193	0.0268	9/16-9/30: Contract
Oct	0.00				0.0666	0.0200	0.0200	
Nov	0.00				0.0644	0.0193	0.0193	
Dec	0.00				0.0666	0.0200	0.0200	
Total	**18.11**		**0.043**	**0.039**	**0.784**	**0.235**	**0.274**	

Results:

shaded cells= contract water

For WBN form:

Total CU	**0.274** AFY
Total use	**0.827** AFY

For Contract form:

CU (Nov 1 to Sept 15)	**0.241** AFY
CU (Sept 16 to Oct 31)	**0.033** AFY
Contract water	**0.033** AFY

contract cost	$26.86

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

Assumes end of TWR IR season is 9/15 and latest diversionary needs downstream on Yakima are Oct 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:	**0.274** AFY	(Total CU) + (Total to add to IF at Parker)