

WATER TRANSFER WORKING GROUP PROJECT DESCRIPTION

APPLICATION NO./COURT CLAIM NO.		
CS4-02255(A)CTCL@1 , (B) AND (C).		
APPLICANT NAME	CONTACT NAME	TELEPHONE NO.
SWIFTWATER RANCH LLC	TRACI SHALLBETTER	206-660-4051
WATER RIGHT HOLDER'S NAME (if different)		EMAIL
SAME		

DATE OF APPLICATION	PRIORITY DATE
AUGUST 25, 2008	JUNE 30, 1890

WATER SOURCE:	CROP:
TEANAWAY RIVER TO WELLS	IRRIGATED PASTURE
INSTANTANEOUS QUANTITY:	ANNUAL QUANTITY:
.286 CFS (A) , .04 CFS (B) , .034 CFS (C)	23.8 AF (A), 3.3 AF (B) , 2.8 AF (C) CONSUMPTIVE
PERIOD OF USE:	
Seasonal to year around.	
PLACE OF USE:	PURPOSE OF USE:
FROM SW1/4 SECTION 26 , T 20 R. 16 E. TO SECTION 25, T 20 R. 16 E.	SEASONAL IRRIGATION TO YEARAROUND MUNICIPAL WATER SUPPLY.
IRRIGATION METHOD:	
FLOOD IRRIGATION	

CONSUMPTIVE USE CALCULATION:
29.9 AF

NARRATIVE DESCRIPTION OF PROJECT:
SWIFTWATER RANCH SEEKS TO CHANGE THE POINT OF WITHDRAWAL, PLACE OF USE, SEASON OF USE, AND PURPOSE OF USE OF SURFACE WATER RIGHTS ON THE TEANAWAY RIVER FROM SEASONAL IRRIGATION TO YEAR AROUND DOMESTIC GROUNDWATER SUPPLY FOR A RESIDENTIAL DEVELOPMENT THAT WILL BE SITUATED ON PROPERTY THAT IS LOCATED NEAR THE RIVER ABOUT ONE MILE UPSTREAM FROM THE CURRENT PLACE OF USE AND POINT OF DIVERSION (AS THAT POINT OF DIVERSION WAS CHANGED IN 2004). THE PROPOSED POINT OF DIVERSION IS SLIGHTLY DOWNSTREAM OF THE ORIGINAL POINT OF DIVERSION ASSOCIATED WITH THIS WATER RIGHT, AT THE SEATON DITCH.

MITIGATION FOR NON IRRIGATION SEASON IMPACTS IS TO BE SEASONAL STORAGE AND OFF SEASON
RELEASE TO THE TEANAWAY RIVER.

WTWG Project form

BACKGROUND

SwiftWater Ranch, LLC is the owner of three water rights, with priority date of June 30, 1890, affirmed under Yakima River Basin Adjudication Court Claim Nos. 2255(A), 2255(B) and 2255(C). These water rights authorize use of water from the Teanaway River for irrigation and stockwater purposes between May 1 and September 15.

On August 7, 2008, SwiftWater Ranch, LLC of Maple Valley, Washington, filed three applications to change the point of withdrawal, place of use, season of use, and purpose of use of three irrigation and stock water rights: Claim 2255(A), Claim 2255(B), and Claim 2255(C), all of the Yakima River Basin Water Rights Adjudication, Yakima County Superior Court Cause No. 77-2-01485-5 ("Adjudication"). The three water rights authorize use of water from the Teanaway River for irrigation purposes, with a period of use of May 1 through September 15 each year. The priority dates for these water rights are June 30, 1890. The applications were accepted at an open public meeting on August 19, 2008, and the board assigned application numbers KITT-04 CS4-02255(A)CTCL@1; KITT-07 CS4-02255(B)CTCL@1; and KITT-08 CS4-02255(C)CTCL@1 ("SwiftWater Ranch Applications").

The SwiftWater Ranch Applications seek to change the point of withdrawal, place of use, season of use, and purpose of use of surface water rights on the Teanaway River (a tributary of the Yakima River) from seasonal irrigation/stockwater use to year-around domestic groundwater supply for a residential development that will be situated on property that is located near the Teanaway River, approximately one mile upstream from the current point of diversion and place of use.

An application-specific Report of Examination has been prepared for each of the SwiftWater Ranch Applications, with each specific report describing, respectively, the attributes of Claim 2255(A), Claim 2255(B), and Claim 2255(C). This "General Report" has been prepared to facilitate review and avoid redundancy, one general report was prepared for the three SwiftWater Applications since the majority of background information, analysis, and conclusions are common to the three. This General Report is made part of, and incorporated into, each of those application-specific ROEs. This General Report, combined with the application-specific report for each application, constitutes the Report of Examination ("ROE") for the specific application.

SEPA

The Board has reviewed the proposed transfers of water right Claim 2255(A), Claim 2255(B), and Claim 2255(C) individually and cumulatively. The Board has determined, pursuant to the provisions of RCW Chapter 43.21C, and the SEPA rules of WAC Chapter 197-11 WAC, that the SwiftWater Ranch Applications are categorically exempt from SEPA.

Furthermore, although the applicant anticipates a certain amount of water being returned to the water of the State as return flows from septic tank and lawn irrigation, the applicant has voluntarily elected to provide its TWSA, impairment, and consumptive use analysis without taking into consideration any such possible return flows. As a result, the quantity of water being proposed for change corresponds only to the consumptive portion of the water rights.

Finally, the applicant has proposed mitigation (see Provisions) that will more than offset any increase in out-of-season consumptive use that may result from the change of season of use.

PREVIOUS CHANGE APPLICATIONS.

According to Ecology's water right files, these water rights historically used the Seaton Ditch diversion on the Teanaway River. An additional point of diversion located approximately one mile upstream was also authorized for use, however it is unclear if this point of diversion was historically used. In 1996 a flood destroyed the Seaton Ditch headworks. In 1997, George and Penny Blackburn, the then-owners of Court Claim Nos. 2255(A) and 2255(B), confirmed by the *Aquavella Court* on February 8, 2001, filed applications to change the points of diversion for the water rights. That application was assigned identifier numbers CS4-YRB03CC2255(A) and CS4-YRB03CC2255(B). In 1998 the Court approved a temporary change in the point of diversion to the Masterson Ditch, located approximately 1 mile upstream to the Seaton Ditch. The Court authorized another temporary change in the point of diversion in 1999 to the current point of diversion, which is located about 1 mile downstream of the Seaton Ditch diversion. Prior to the final processing of the change application, the Blackburns sold the property to which Claim No. 2255(A) and No. 2255(B) were appurtenant. Change Application Nos. CS4-YRB03CC2255(A) and CS4-YRB03CC2255(B) were assigned to the new owners, and because the new parcel boundaries did not correspond with the water right boundaries, Application No. CS4-YRB03CC2255(A) was administratively split, creating Application No. CS4-YRB03CC2255(C).

Ecology approved Change Application Nos. CS4-YRB03CC2255(A), CS4-YRB03CC2255(B) and CS4-YRB03CC2255(C) in July 2004, determining that the rights were in good standing and eligible for change. Ecology's approvals for the change applications associated with Claims 2255(A), (B), and (C), authorized the instantaneous and annual quantities described in each of the application-specific Reports of Examination that have been prepared for the SwiftWater Ranch Applications.

COMMENT AND PROTESTS [See WAC 173-153-130(6)(b)]

Public notice of the application was given in the Daily Record on Aug. 29, 2008 and Sept. 5, 2008. The protest period ended on October 4 pursuant to the initial two notices. There were no comments or protests received during that 30 day protest period or at the public hearing of the Board on October 21, 2008. Additional public notice of the application was published in the Daily Record on Nov. 7, 2008 and Nov. 10, 2008. No comments or protests were received during the additional 30 day period. In addition, no oral and written comments were received at the open public meetings of the board or other means as designated by the board.

Date:

This was recognized by the board as a Protest Comment

Name/address of protestor/commenter:

Issue:

Board's analysis:

INVESTIGATION [See WAC 173-153-130(6)(c)]

The following information was obtained from a site inspection conducted by Jerry Martens on October 13, 2008; research of department records; conversations with the applicant and/or other interested parties; and other documentary evidence included with the SwiftWater Ranch Applications and submitted at the December 16, 2008 meeting of the Board, including, but not limited to:

Technical Memorandum Re. Beneficial Use and Consumptive Use Estimates for Court Claim No. 2255 (Aspect Consulting May 21, 2008); and

Technical Memorandum Re. Water Right Change Impact Analysis for SwiftWater Ranch (Aspect Consulting Nov. 19, 2008).

Proposed project plans and specifications

The proposed development is located adjacent to the Teanaway River in portions of Sections 25 and 26, Township 20 N, Range 16 E Willamette Meridian. The current development plan calls for up to 49 residential units, to be supplied by an onsite well or wells. Domestic wastewater will be disposed of onsite through individual septic systems or a community drainfield.

The existing point of diversion for the water rights controlled by Swiftwater Ranch is on the Teanaway River, approximately 2 miles upstream from the confluence with the Yakima River. The proposed groundwater source will be two or more water wells located on the development property, approximately 1 mile upstream from the current point of diversion. Proposed water use for the development is based on average use of 450 gallons per day (gpd) per residential connection. This assumes 200 gpd per connection year round for indoor use, plus an additional 750 gpd per connection during 4 months each year (June through September) for outdoor lawn and landscaping irrigation. The estimated outdoor use is based on a lawn and landscape area of approximately 8,000 to 9,000 square feet. For the proposed 49 residential connections, total residential water use is estimated to be 24.70 afy. An additional 1.67 afy is planned for use at a barn and common landscaping areas on the site, bringing the planned total annual water use to 26.37 afy. This is equivalent to an average daily water use of 23,540 gpd, or about 0.072 acre-feet per day at full build-out. The proposed development schedule allows for development to occur over a period of twenty (20) years.

The development plan also calls for an amenity pond to be situated in the West half of Section 25, which pond will serve the primary purpose of holding at least 16.4 acre feet of water that will be released to the Teanaway River at a continuous rate of 16.3 gpm, to offset estimated out-of-season consumptive use impacts on TWSA.

Annual Consumptive Quantity

A change in the place of use, point of diversion, and/or purpose of use of a water right may be permitted if the change results in no increase in the annual consumptive quantity of water used under the water right. *See* RCW 90.03.380. For purposes of this General Report, "annual consumptive quantity" means the estimated or actual annual amount of water diverted pursuant to the water right, reduced by the estimated annual amount of return flows, averaged over the two years of greatest use within the most recent five-year period of continuous beneficial use of the water right.

Water use was estimated using two methods. The first method was to estimate the total water pumped during the 2004 irrigation season using the 2004 electrical use data. The second method follows Ecology Water Resource Program Guidance 1210 – Determining Irrigation Efficiency and Consumptive Use (Ecology, 2005). Results of these approaches are summarized in Technical Memorandum Re. Beneficial Use and Consumptive Use Estimates for Court Claim No. 2255 (Aspect Consulting May 21, 2008).

In evaluating a change in the purpose of use of a water right (e.g., from irrigation to multiple domestic) Ecology requires that the annual consumptive quantity (ACQ) and the total quantity of beneficial use (Qa) do not increase. The evaluation period for ACQ is the most recent 5 years of continuous use. There was no irrigation use from 2005 through 2007. Based on Ecology records, there was no use from 2000 to 2002, and there was likely a period of non-use following the 1996 flood and before a new point of diversion was granted. Therefore, the relevant time period for evaluating ACQ is 1991 through 1995, when the property was under flood irrigation. The combined ACQ for Claims 2255(A), 2255(B), and 2255(C) during this period is estimated to be 29.9 afy.

The Qa eligible for change is limited to the lowest maximum use over any prior 5-year period. For the period of available records, the 5-year period of lowest total use is 2003 through 2007, with an estimated Qa in 2003 and 2004 of 36.2 afy. Based on this evaluation, the total quantity eligible for transfer under Claim 2255(A), 2255(B), and 2255(C) is 36.2 afy, and the combined total consumptive quantity eligible for transfer is 29.9 afy.

Broken down among the three water rights, Claim 2255(A), 2255(B), and 2255(C), the consumptive quantities available for transfer are as follows:

2255(A) = 23.8 afy (based on 14.32 irrigated acres)

2255(B) = 3.3 afy (based on 2 irrigated acres)

2255(C) = 2.8 afy (based on 1.68 irrigated acres)

Effects on TWSA

In the Upper Yakima Basin, including the Teanaway River, water rights are managed based on estimates of surface water supply referred to as Total Water Supply Available (TWSA). TWSA can be defined as the total volume of water expected to enter the Yakima River system above the Parker stream gage. The Parker gage is located below the Sunnyside Dam south of Yakima, approximately 70 river miles downstream of the Swiftwater Ranch site. Water rights with a priority date earlier than May 10th, 1905 are not subject to regulation based on TWSA, while water rights with a May 10th, 1905 or later priority date are subject to partial or full curtailment of water use in water short years.

A water budget for the project, accounting for average groundwater withdrawals and septic return flows has been performed. Although future water use at the development will follow a seasonal pattern, the average daily water use of 23,540 gpd was used for the purposes of estimating impacts to TWSA. This approach is justified based on the expected significant lag between pumping and impacts to flows in the Teanaway and Yakima Rivers. The lag will effectively average the impacts of the groundwater withdrawal on surface water flows, smoothing out the seasonal effects.

Monthly effects on TWSA were estimated by subtracting the monthly return flows from the average water use. The impact to TWSA during the authorized irrigation season is about 9.97 acre-feet, which is well below the consumptive use of the existing irrigation rights exercised under Court Claim Nos. 2255(A), (B), and (C) of 29.9 afy. Based on this, no mitigation of impacts to TWSA would be required during the irrigation season.

Changing the period and purpose of use from seasonal irrigation to year-round domestic supply will result in impacts to TWSA outside the authorized irrigation season. This out-of-season impact is not offset by any existing irrigation use, and will require mitigation. Accounting for septic system return flows, the out-of-season impact to TWSA ranges from about 0.9 to 1.4 acre-feet per month, with a total out-of-season impact of 10.6 acre-feet. If return flows are not recognized, the required total out-of-season impact would be 16.4 acre-feet. As discussed in the Recommendations for Mitigation section, these out-of-season impacts will be mitigated by seasonal storage and release of water to the Teanaway River.

Impairment To Existing Surface Water And Groundwater Rights

The potential for the proposed change to impair existing surface water and groundwater rights, including water right permit-exempt domestic wells is evaluated in this section. Under the proposed change, the existing point of diversion on the Teanaway River would be changed to one or more groundwater wells located approximately 1 mile upstream. Based on a review of Ecology's Water Rights Tracking System (WRTS) and well log databases there is one certificated groundwater right (G3-21400C on Figure 1 of Aspect Consulting Nov. 19, 2008) located approximately 2 miles west of the site and approximately 40 potential permit-exempt wells located within 1/2 mile of the site wells. The WRTS lists 14 surface water rights with diversions located between the existing point of diversion and the proposed groundwater source (Table 4 of Aspect Consulting Nov. 19, 2008). An additional 11 surface water rights with diversions from the Teanaway River located at or downstream from the existing point of diversion are also listed in the WRTS (Table 4 of Aspect Consulting Nov. 19, 2008).

The points of diversion for these 25 water rights are all located at or downstream from the historic Seaton Ditch diversion. The original priority dates for these water rights all pre-date the 1996 flood of the Teanaway River and subsequent changes in the point of diversion for Court Claim No. 2255. The purposes of use for these water rights include stockwater, irrigation, and instream flows.

Impacts to Surface Water

During the authorized irrigation season, impacts to flows in the Teanaway River downstream from the existing point of diversion will be less under the proposed change (9.97 acre-feet) than under the exiting use (29.9 acre-feet). Based on this, there is no potential for impairment of the 11 water rights located at or downstream of the existing point of diversion.

Fourteen water rights are located between the current point of diversion and the proposed groundwater source at the development property. The proposed groundwater source is located about 1 mile upstream from the current point of diversion and adjacent to the historical point of diversion at the Seaton Ditch, which was in use until 1996. The authorized diversion from the Seaton Ditch under Court Claim 2255(A), (B), and (C) was 97.2 acre-feet, or an average of 0.36 cfs during the irrigation season. Therefore, prior to the 1998 change in the point of diversion, exercise of the subject water rights would have reduced flows in the Teanaway River downstream of the Seaton Ditch by up to 0.36 cfs during the irrigation season.

The proposed change will affect flows on the same reaches of the Teanaway River as were affected when the Seaton Ditch point of diversion was in use (i.e., downstream from the Seaton Ditch diversion). Therefore, with regard to locations of potential effects on surface water flows, the proposed change to a groundwater source at the development property is the same as moving the current point of diversion back to the original authorized Seaton Ditch point of diversion. The effects on flows during the irrigation season will be much smaller (0.03 cfs) under the proposed change than under the historic use, due to the decreased proposed irrigation season use. Under the proposed change, the maximum cumulative effect during the irrigation season is estimated to be 9.97 acre-feet, or an average reduction in flow of 0.03 cfs. (Note that this is a conservative figure, arrived at by assuming no credit is provided for return flows associated with septic use).

No new water rights have been issued for this portion of the Teanaway River since the change in the point of diversion from the Seaton Ditch to the current location was approved in 1998. Therefore, any water right diversions between the current point of diversion and the proposed groundwater source were previously subject to the effects of a diversion at the Seaton Ditch of up to 0.36 cfs. Under the proposed change, the irrigation season impact to flows would not be more than 0.03 cfs. In other words, the impact on intervening water right holders during irrigation season would actually be a net positive in flow (of 0.33 cfs) when compared to the original point of diversion on Seaton Ditch.

Based on the irrigation season use of the Seaton Ditch diversion until 1996, the reduced irrigation season impacts to surface water flows between the current point of diversion and the Seaton Ditch under the proposed change, and no new water rights having been issued on this portion of the Teanaway River since the 1998 change in the point of diversion, use of the requested point of withdrawal will not result in impairment of existing surface water rights during the irrigation season.

Changing the period and purpose of use from seasonal irrigation to year-round domestic supply will also result in impacts to TWSA outside the authorized irrigation season. As discussed in the Recommendations for Mitigation section, these out-of-season impacts will be mitigated by seasonal storage and release of water to the Teanaway River.

Impacts to Groundwater

The potential for impairment of groundwater wells was evaluated by estimating impacts to water levels in nearby wells. It was conservatively assumed that groundwater would be withdrawn from only one well (ABX638) at a continuous rate of 16.3 gpm (23,540 gpd). The exact locations of nearby wells are unknown, but it was assumed that the closest well is approximately ¼ mile away from well ABX638. The pumping test performed at well ABX638 showed 98 feet of drawdown at a pumping rate of 25 gpm. This equates to a specific capacity (defined as the pumping rate divided by the drawdown) of 0.26 gpm/ft. The transmissivity (in units of gpd per foot [gpd/ft]) of a confined aquifer can be estimated as on the order of 2,000 times the specific capacity. In this case, the transmissivity is estimated at 510 gpd/ft, or 68 feet squared per day (ft²/d). A storativity of 0.0001 was assumed, using typical values for sandstones. Using these assumptions with the Theis solution results in an estimated drawdown after one year at a distance of ¼ mile of 21 feet.

Drawdown is not considered impairment of another well unless that well fully penetrates the aquifer and the impacted well can no longer produce its allotment (either the quantity authorized in a water right or, for permit-exempt wells, 5,000 gpd). Most wells in the area are screened at depths greater than 200 feet bgs, with depths to water of less than 10 feet bgs. As a result, the available drawdown in nearby wells generally exceeds 200 feet. Based on the relatively large available drawdown, and assuming the above hydrogeologic parameters, estimated drawdown from pumping of site wells would not be sufficient to cause impairment.

Other water rights appurtenant to the property (if applicable)

Certain water rights are already appurtenant to the property that is the proposed place of use for the water proposed for transfer by SwiftWater Ranch Applications. Such existing, appurtenant water rights are described in the General Report—Teanaway River Basin, which was a part of the ROEs for CS4-YRB03CC02255, CS4-YRB03CC02255@1, CS4-YRB03CC02255@2, CS4-YRB03CC02255@3, CS4-YRB03CC02255@4, CS4-YRB03CC02255@5 and CS4-02255(A)CTCL, CS4-02255(B)CTCL, CS4-02255(C)CTCL, CS4-02255(D)CTCL, CS4-02255(E)CTCL, CS4-02255(F)CTCL (collectively, the “Trendwest Applications”). The twelve Trendwest Applications sought to change six irrigation and stockwater rights appurtenant to the Walker Ranch to trust water rights. The General Report-Teanaway River Basin that approved the Trendwest Applications, states:

“Trendwest has agreed to mitigate for domestic water use associated with future residential development on the property appurtenant to claims referenced in the Trendwest applications for change....[T]he annual amount of trust water (Qa) available to mitigate potential water availability impacts associated with the proposed changes to the mainstem claims would be reduced by the anticipated future water use on the appurtenant property.”

For purposes of determining the anticipated future water use on the appurtenant property, it was assumed that future residential development would rely on the use of exempt single-family wells. Using a formula based on then-existing zoning, the ROE set forth a table identifying the amount of trust water available to mitigate future water use on appurtenant properties. The total water that was set aside to mitigate future water use on the appurtenant property was 17.34 acre-feet per year, which quantities were distributed among the various parcels of the Walker Ranch.

The proposed place of use for the water that is the subject of the SwiftWater Ranch Applications corresponds to a portion of the Walker Ranch. The portion of the Walker Ranch that is coincident with the SwiftWater Ranch place of use has been allocated 8.58 of the 17.34 acre-feet of water that Ecology required Trendwest to transfer to the trust water program as part of the ROEs for the Trendwest Applications. The period of use associated with 7.41 acre-feet of the 8.58 acre-feet, is April 1-October 15. The period of use for the balance of the right (1.17 acre feet) is continuous, year around.

According to the language of the General Report-Teanaway Basin:

“Future landowners on property appurtenant to the Trendwest claim have two options for use of the 17.34 acre-feet per year described above: 1) leave water in trust as mitigation for exempt domestic use in accordance with the Trust Water Right Agreement between Trendwest and Ecology, or 2) apply for a water right change from a trust water right to the domestic and irrigation use that would occur on the appurtenant property.”

Trendwest (now known as Suncadia) has not yet entered into a Trust Water Right Agreement with Ecology. However, pursuant to an Order Pendente Lite in February 2005, the Court authorized Trendwest to transfer the Walker Ranch

mitigation rights to the Trust Water Program for use as instream flows within the Teanaway and Yakima Rivers, from the existing diversion points to the confluence of the Yakima River with the Columbia River. The Order Pendente Lite further authorized use of the subject water as part of the Yakima Basin Total Water Supply Available for irrigation and other uses below the confluence of the Teanaway River with the Yakima River. The Order Pendente Lite authorized continued use of the rights as instream flows for the pendency of the adjudication of the Yakima River Basin, or sooner entry of an order providing for final disposition of the rights.

SwiftWater Ranch has proposed to leave in the Trust Program the 8.58 acre-feet of water (1.17 acre feet of which is for a continuous season of use) that is currently in the Trust Water Program for purposes of mitigating domestic water use on that portion of the Walker Ranch that SwiftWater Ranch owns. The 8.58 acre-feet of water appurtenant to the subject property therefore are not involved in or the subject of the SwiftWater Ranch Applications.

Public Interest (groundwater only)

The Board finds that State law is not clear on the question of whether a “public interest” analysis (per RCW 90.03.380, RCW 90.44.1100; WAC 173-153-110(9)) is required on a surface-to-groundwater right transfer. To the extent such analysis is required, the Board concludes that the request change will not be detrimental to the public interest. The change is consistent with the State’s public policy objectives to provide for efficient use of water resources, to encourage supply of new and expanding uses through the change or transfer of rights, and to support domestic uses through the provision of a water right, rather than reliance on exempt wells. The proposed change is consistent with RCW 90.03.380 and applicable regulations

Furthermore, because the proposed change, as approved and conditioned herein, will not increase the consumptive use associated with Claim 2255(A), 2255(B) and 2255(C) adversely impact TWSA, or impair any existing water rights, the Change Application does not harm the public interest.

Tentative Determination

In order to make a water right change decision, the Board must make a tentative determination on the validity and extent of the right. The Board has made the tentative determination as displayed upon the first page of this report. There are several circumstances that can cause the board’s tentative determination to differ from the stated extent of the water right within water right documentation. Water right documents attempt to define a maximum limitation to a water right, rather than the actual extent to which a water right has been developed and maintained through historic beneficial use. Additionally, except for a sufficient cause pursuant to RCW 90.14.140, water rights, in whole or in part, not put to a beneficial use for five consecutive years since 1967 may be subject to relinquishment under Chapter 90.14.130 through 90.14.180 RCW. Water rights may additionally be lost through abandonment. The Board’s tentative determination was based upon the findings and documentation presented in the Technical Memorandum: Beneficial Use and Consumptive Use Estimates for Court Claim No. 2255 (Aspect Consulting May 21, 2008) and the Technical Memorandum: Water Right Change Impacts Analysis for SwiftWater Ranch (Aspect Consulting Nov. 14, 2008).

The water rights proposed for transfer are valid rights for the full instantaneous and annual quantities stated in the claim specific ROEs.

Geologic, Hydrogeologic, or other scientific investigations (if applicable)

This description of hydrogeologic conditions is based on well logs from the site and nearby properties obtained from the Department of Ecology website and review of geologic literature for the area (e.g., United States Geological Survey [USGS], 1982). Well logs for five representative wells located on or near the development properties were reviewed and the approximate locations of the wells were labeled using Ecology well identification or start card numbers. These logs were used to develop a geologic cross section through the site.

The well logs indicate the site is underlain by approximately 20 to 60 feet of unconsolidated sand, gravel, and clay overlying bedrock. The bedrock consists of interbedded sandstone and shale, with occasional thin coal seams. The bedrock is interpreted to be part of the Roslyn Formation which is encountered throughout the Teanaway River drainage down to the confluence with the Yakima River and west to Roslyn and Lake Cle Elum. Depth to water in wells located in the valley bottom ranges from about 10 feet below ground surface (bgs) to flowing conditions (i.e., water in the well rises above ground surface). The relatively thin, fine-grained layer of unconsolidated material overlying the bedrock generally does not appear suitable for water supply development, although locally sufficient coarse-grained material may be present to provide reliable supply, especially near the Teanaway River. Well ALE971 is completed in approximately 60 feet of sand and gravel, which are apparently alluvial or terrace deposits. All other existing wells located at or near the site are completed in bedrock, with perforated intervals spanning depths from about 180 feet bgs to 380 feet bgs.

Two existing wells under consideration for water supply at the proposed development are ABX638 and AKW667. Well ABX638 is screened at depths of 205 to 265 feet bgs and well AKW667 is screened at depths of 180 to 220 feet bgs and 320 to 360 feet bgs. In May 2008, a pumping test was performed at well ABX638 by Midstate Co-op of Ellensburg, Washington. The well was pumped at a rate of 25 gpm for four hours. After approximately 75 minutes the drawdown in the well stabilized at 98 feet below the static water level. Air lift tests at other nearby wells completed in bedrock show yields ranging from less than 5 gpm to about 40 gpm.

Based on the shallow depth to water and flowing groundwater conditions, groundwater beneath the site ultimately flows toward and discharges to the Teanaway and Yakima Rivers. Therefore, over time any groundwater withdrawal at the site will ultimately affect flows in the rivers. Based on this, the proposed groundwater source is in hydraulic continuity with the Teanaway and Yakima Rivers, and withdrawal of groundwater at the site will ultimately affect flows in the Teanaway and

Yakima Rivers. Based on the 70 mile distance between the proposed point of withdrawal and the Parker gage, any effects of the proposed withdrawal on surface water flows are expected to be accounted for upstream of the Parker gage.

CONCLUSIONS [See WAC 173-153-130(6)(d)]

The water rights proposed for transfer are subject to the jurisdiction of the Yakima County Superior Court conducting the *Acquavella* Adjudication.

The following conclusions are based on the above General Report and Investigation and contents of the claim-specific ROE:

Tentative determination (validity and extent of right)

In accordance with Chapter 90.03 RCW, the board makes a tentative determination that the Yakima River Bain Water Rights Adjudication, Subbasin No. 3, Teanaway River Court Claim Nos. 2255(A), (B), and (C) are valid water rights, have been historically put to beneficial use and are eligible for change in the full instantaneous and annual quantities stated in the water-right specific ROEs.

Relinquishment and Abandonment concerns

The owner of Claim 2255(A), 2255(B), and 2255(C) has not abandoned or relinquished any part of said rights. The record demonstrates that the owners of the rights diverted and beneficially used their full adjudicated rights during the relevant period of evaluation.

Notice and Comment

Notification of the Change Application and the Board's consideration thereof was properly published as required by law, and requisite time periods and opportunity to comment and hearing were provided prior to the Board's decision on the Change Application. The requisite notice of the Change Application was provided to all necessary agencies.

The Board has received no comments related to the Change Application. No protests, objections, claims of impairment or injury, or requests to intervene were filed or presented at the public hearings of the Board.

Hydraulic analysis

The Board, with Applicant's participation, determined that the proposed groundwater source is in hydraulic continuity with the Teanaway and Yakima Rivers, and withdrawal of groundwater at the proposed place of use will ultimately affect flows in the Teanaway and Yakima Rivers. Based on the 70 mile distance between the proposed point of withdrawal and the Parker gage, any effects of the proposed withdrawal on surface water flows will be accounted for upstream of the Parker gage.

TWSA

The water rights held by Swiftwater Ranch and the water rights originally appurtenant to the development properties and available under the terms of the Suncadia water right transfer all have pre-1905 priority dates. As such, these rights are not subject to regulation based on TWSA during the currently authorized period of use of May 1 through September 15. By expanding the period of use to year round supply, the new "out-of-season" use (i.e., the period outside the original authorized period of use) is potentially subject to regulation based on TWSA, unless impacts to TWSA as measured at the Parker gage are mitigated.

The proposed changes in place/manner of diversion, and place, purpose, and season of use can be made without increasing the annual consumptive use of water, provided the applicant complies with the provisions set forth below.

Impairment

The proposed changes in place/manner of diversion, and place, purpose, and season of use can be made without impairment to existing water rights, provided the applicant complies with the provisions set forth below.

Public Interest.

The Board finds that State law is not clear on the question of whether a "public interest" analysis (per RCW 90.03.380, RCW 90.44.1100; WAC 173-153-110(9)) is required on a surface-to-groundwater right transfer. To the extent such analysis is required, the Board concludes that the request change will not be detrimental to the public interest. The change is consistent with the State's public policy objectives to provide for efficient use of water resources, to encourage supply of new and expanding uses through the change or transfer of rights, and to support domestic uses through the provision of a water right, rather than reliance on exempt wells. The proposed change is consistent with RCW 90.03.380 and applicable regulations

Furthermore, because the proposed change, as approved and conditioned herein, will not increase the consumptive use associated with Claim 2255(A), adversely impact TWSA, or impair any existing water rights, the Change Application does not harm the public interest.

DECISION [See WAC 173-153-130(6)(e)]

See application-specific ROEs.

PROVISIONS

Conditions and limitations

All conditions, limitations and provisions stated in the *Acquavella*, as applicable to Claim 2255(A), Claim 2255(B), and Claim 2255(C) shall remain in full force and effect.

All water wells constructed within the State shall meet the minimum standards for construction and maintenance as provided under Chapter 18.104 RCW and Chapter 173-160 WAC.

An approved measuring device shall be installed and maintained for each well/withdrawal from the sources identified by this water right, consistent with the "Requirements for Measuring and Reporting Water Use," Chapter 173-173 WAC. Once the a Group A water system for the proposed development has been constructed, received all applicable governmental approvals, and is operating as a municipal water supply, the applicant shall commence recording and reporting data to Ecology, consistent with Chapter 173-173 WAC.

The total quantity of water pumped from the wells/points of diversion may not exceed the total quantity of water available on an annual basis under the existing right.

Mitigation (if applicable)

As discussed above, consumptive use during the irrigation season (May 1 through September 15) will be less than historic consumptive use associated with Court Claim Nos. 2255(A), (B), and (C), will not impair existing water rights, and will not require mitigation. The conservatively estimated 16.4 acre-feet of consumptive use that affects TWSA outside the irrigation season will require mitigation.

The applicant shall construct an approximately 1.5 acre pond (or equivalent) upon the project site, which pond will serve the primary purpose of storing at least 16.4 acre feet of water available under the water rights during the irrigation season (May 1-September 15), then release such stored water outside the irrigation season (September 16-April 30) to the Teanaway River at a continuous rate of 16.3 gpm, to offset estimated out-of-season consumptive use impacts on TWSA.

There is sufficient water under the current water rights to provide the necessary quantity required for mitigating the potential out-of-season impacts. Historic exercise of the current water rights are estimated to have resulted in 29.9 afy of consumptive use, which is greater than the estimated total annual consumptive use of 19.16 afy. Between September 16 and April 30, the consumptive impact to TWSA from domestic water use is estimated to be 16.4 acre-feet. During this period, the 16.4 acre-feet of stored water would be released to the Teanaway River at a continuous rate of 16.3 gpm, equal to the estimated out-of-season consumptive impact to TWSA.

Construction Schedule

The applicant shall commence development of the contemplated project on or before July 1, 2009 (provided such date is at least seventy-five days after the Board's entry of this decision), and shall complete the project and put the water to full beneficial use by July 1, 2029.

Other

The applicant is not proposing, nor is the Board approving, any appropriation, consolidation or transfer of the estimated 8.58 acre feet of water appurtenant to the property, which water currently is in the State Trust Water Program pursuant to the Pendente Lite Order entered February 10, 2005 by the *Aquavella* Court.

Signed at Ellensburg , Washington
This _____ day of _____, _____

, Board Representative
Kittitas County Water Conservancy Board

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