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WATER TRANSFER WORKING GROUP PROJECT DESCRIPTION

APPLICATION NO./COURT CLAIM NO.: Court Claim No. 00365		
APPLICANT NAME Dave Blanchard Northland Resources 206 West First St. Cle Elum, WA 98922	CONTACT NAME Dave Blanchard Tom McDonald Lisa Pelly Tim Flynn	TELEPHONE NO. 425-417-5311 360-786-5039 509-888-0970 206-780-7730
WATER RIGHT HOLDER'S NAME (if different) n/a The Estate of Hazel Henshaw and Bernard I. Henshaw		EMAIL: dblanchard@SapphireSkies.net

DATE OF APPLICATION: 7-15-09	PRIORITY DATE: June 5, 1886
WATER SOURCE: Yakima River	CROP: Alfalfa
INSTANTANEOUS QUANTITY: 1.5 cfs	ANNUAL QUANTITY: 450 AF
PERIOD OF USE: April 20-September 30	
PLACE OF USE: S1/2S1/2 of Government Lot 3, Government Lot 4, and the SE1/4SW1/4, except the SE1/4SW1/4, All in Section 30, T. 20 N., R. 16 E.W.M.	PURPOSE OF USE: Irrigation of 75 acres to mitigation water bank
IRRIGATION METHOD: Wheel Line	

CONSUMPTIVE USE CALCULATION:

Consumptive use calculations using the ASCE Penman Monteith method based on site specific irrigation requirements:

CIR plus evaporation-based:

- CIR for Alfalfa = 23.6 in/acre annually or 1.96 AF/acre
- 1.96 AF per acre x 44 acres = 86.53 AF/year CIR
- 10% evaporative loss of 137.4 af/yr = 13.7 af/yr evap. loss.

86.53 AF/year CIR + 13.7 AF/yr evaporative loss associated with flood irrigation = 100.23 total AF/year CU

NARRATIVE DESCRIPTION OF PROJECT:

Northland Resources (Northland) has been working with the Department of Ecology to utilize a mitigation water bank for new surface water and groundwater appropriations for its proposed developments in Kittitas County. (see attachment A) Northland will place into the State's Trust Water Rights Program existing water rights to create the mitigation water bank. A portion of the Henshaw water right is under contract with Northland Resources to be placed into the Trust program for this purpose. Irrigation will cease on the lands associated with the water rights being acquired when they are needed for the water bank and acquired by Northland Resources. The water bank is consistent with WAC 173-539A.

Court Claim 00365 is an 1886 water right authorizing diversion from Younger Ditch off of the Yakima River for irrigation between May 1 and September 15. The water right was confirmed in the Conditional Final Order issued in Subbasin No. 5 (Elk Heights), dated February 8, 2001 for the irrigation of 75 acres. The Court claim awarded 1.5 cfs and 450 acre-feet for irrigation, .02 cfs, 3 acre-feet for stock water and .30 cfs for conveyance loss under this water right.

Site-specific crop irrigation requirements for alfalfa were calculated by Aspect Consulting using the ASCE Penman Monteith method. Calculated crop irrigation requirements over the period of May 20th through September 30th are about 23.6 inches. Applying this crop irrigation requirement over 44 irrigated acres results in

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a crop consumptive use of about 86.53 AF.

The owner of the water right currently irrigates two fields under the water right. For the North field, dividing the crop consumptive use of 51.1 by the total use of about 105 afy estimated based on power records implies an irrigation application efficiency of about 49 percent. However, in its review of the beneficial use, Ecology indicated an application efficiency of 65 percent was more reasonable, based on Ecology Guidance 1210 and review of the irrigation system and practices at the North field. Using this application efficiency and the crop consumptive use, Ecology estimated a total beneficial use of about 78.5 afy.

For the South field, dividing the crop consumptive use of 35.3 by the total use of about 105 afy estimated based on power records implies an irrigation application efficiency of about 33 percent. In its review of the beneficial use, Ecology indicated an application efficiency of 60 percent was more reasonable, based on Ecology Guidance 1210 and review of the irrigation system and practices at the South field. Using this application efficiency and the crop consumptive use, Ecology estimated a total beneficial use of about 58.9 afy.

Based on Ecology Guidance 1210, approximately 10 percent of the total applied water using a wheel line irrigation system is consumed by evaporative losses prior to reaching the root zone. For this case, about 13.7 afy is lost to evaporation. Adding the crop consumptive use and the additional evaporative losses results in a total consumptive use of 100.23 afy.

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WTWG CHECKLIST

1. Validity	<i>Response</i>
Is there continued beneficial use history sufficient to ensure that the right has not been relinquished or abandoned?	<i>Yes</i>
Is it free of any “cloud” or claim on the title of the water right?	<i>Yes</i>
2. Water Budget Neutrality	
Is the transfer water budget neutral?	<i>Yes</i>
Is the transfer TWSA (Total Water Supply Available) neutral?	<i>Yes</i>
Does the transfer of the right result in equal or less consumptive use?	<i>Yes</i>
Can the transfer be made without detriment or injury to existing rights? (RCW 90.03.380(1))	<i>Yes</i>
3. Timing and Availability	
Temporary Transfers: If a seasonal transfer, can the transfer be implemented in the time remaining in the season?	<i>n/a</i>
Permanent Transfers: Is there a map of the fallowed land or discontinued use and can it be confirmed?	<i>Yes</i>
4. Impairment of instream flow	
Does the transfer cause no adverse change to instream flows?	<i>Yes</i>
Is all the water accounted for at Parker and Prosser (if applicable)?	<i>Yes</i>
5. Operational Considerations	
If the transfer relies on space in existing Reclamation storage, is storage capacity available?	<i>Yes</i>
Can the transfer be “bucketed”, with different rate and timing, without adverse impacts on other users and fish and other aquatic life?	<i>Yes</i>
Does the transfer have no impermissible impact on Yakima Project operations?	<i>Yes</i>
6. For Transfers Between Surface Water and Ground Water	
Can the hydrologic impacts of the transfer be accurately evaluated?	<i>Yes</i>
7. Other considerations	
Is the transfer in agreement with public policy?	<i>Yes</i>
Is the transfer free of unacceptable secondary effects – economic, environmental, or cultural?	<i>Yes</i>
Does the transfer not rely on return flow?	<i>Yes</i>

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Figure B-4
Henshaw Property - 2005
Northland Resources, Kittitas County, WA

Aspect Consulting
June 20, 2008
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