

Close-Out Summary: Contract High Water Mark Calculations

Background

A public customer's Contract High Water Mark (CHWM) determines how much power it is eligible to purchase at BPA's low-cost power rates (Tier 1 rates). The CHWMs are established in section 4 of the Tiered Rates Methodology (TRM) and are based on the Tier 1 System Firm Critical Output (T1SFCO) and a customer's fiscal year (FY) 2010 measured load. The FY 2010 load may be adjusted, consistent with the TRM, to account for load temporarily lost and for conservation achievements. BPA and customers have worked closely over the last year to refine and finalize the data that has gone into the CHWM calculations.

On March 11, 2011, BPA published its proposed CHWM calculations. Following this publication, BPA held a two week public comment period. BPA received a total of 12 comments from customers and appreciates all of the input on the CHWM calculations.

The list of commenters is attached as Appendix A. These comments are posted on BPA's website at <http://www.bpa.gov/applications/publiccomments/CommentList.aspx?ID=123>, or are available from BPA.

BPA has reviewed these comments and is now republishing the proposed final CHWM calculations. As a result of customers' comments, BPA has made a few changes to some of the CHWM inputs from the March 11th publication of the CHWM calculations. This paper explains those changes and responds to the comments and data requests BPA received during the public comment period. Customers' proposed final CHWMs are attached as Appendix B.

The final determination of the CHWMs is subject to the dispute resolution process established in section 13.10 of the TRM. During the public review process and in accordance with the requirements of section 13.10 of the TRM, BPA was notified of two potential dispute resolution issues. Those issues are related to Lower Valley Energy's comment discussed in section I(a) below and the City of Centralia's comment discussed in section II(a) below. In accordance with the TRM, dispute resolution must be requested within ten (10) days of republishing the CHWM calculations, which is April 24, 2011. BPA will inform customers of any dispute resolution issues and, after any such issues have been resolved, BPA will notify customers of their final CHWMs.

I. Changes to the CHWM Calculations as a Result of Customers' Comments

As a result of customers' comments, BPA made a few changes to the CHWM calculations published on March 11, 2011. Many of these changes involve minor data errors that were discovered after the March 11th publication. These changes include corrections to:

1. FY 2008 load data for Pend Oreille;
2. Load data for the PNGC members, Lower Valley Energy and Benton REA to include the Slatt Point of Delivery, which was previously omitted;
3. Load data for the City of Centralia to correct metered data for the Yelm hydro resource;
4. Load data for Kittitas PUD and the City of Ellensburg to make adjustments for the transfer of the Anderson Hay load; and
5. The CHWM calculation spreadsheet to fix an error in the spreadsheet's calculation of Jefferson County PUD's CHWM.

Two comments from customers requested changes that require further explanation. These comments and BPA's response to them are discussed below.

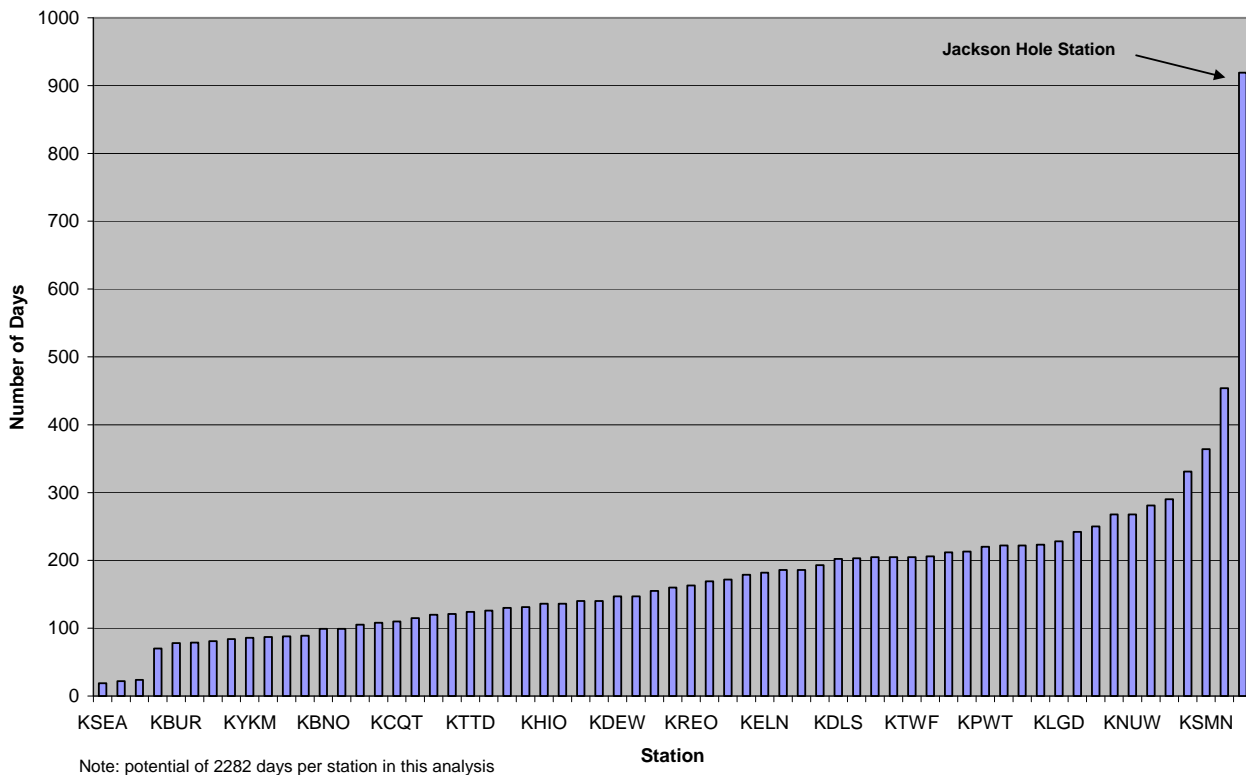
a. Lower Valley Energy's Request to Adjust the Weather Normalization Methodology for its Loads

Lower Valley Energy (Lower Valley) requested an adjustment to the weather normalization methodology as applied to its loads based on its belief that the methodology does not adequately capture its unique tourist-based economy, as indicated by the large downward adjustment to its FY 2010 load resulting from the weather adjustment. BPA has continually stated that the weather normalization methodology will be applied consistently and equally to all customers and it does not intend to make an exception for Lower Valley. At the same time, the intent of the weather normalization methodology is to fairly and accurately adjust loads for the effects of atypical weather. Upon further examination of the weather normalization of Lower Valley's loads, it became evident that the methodology did not adequately account for situations where there are large amounts of missing data from a weather station. The Jackson Hole Airport weather station, which was used to weather normalize Lower Valley and Fall River Electric's loads, is such a weather station.

The Jackson Hole Airport station has by far the least consistent weather recording of all the stations BPA used to weather normalize load data. The Jackson Hole Airport station has over 900 missing days of recorded data out of a possible 2282 days. As illustrated in the graph below, the number of days with missing observations is nearly double for the Jackson Hole Airport station as compared to the station with the next greatest amount of days of missing recorded data. BPA believes this lack of reported data impacts the weather adjustment values for both Lower Valley and Fall River Electric. In the weather adjustment process BPA developed a method to compensate for missing data because missing data can distort the daily actual average temperature. However, the method developed does not appear to sufficiently compensate for situations where there are large amounts of missing data, such as with the Jackson Hole Airport station. When the methodology was developed, BPA did not foresee a situation where almost 40 percent of a station's readings would be missing. Therefore, to account for this situation, BPA refined its criteria to make the quality of the data at the Jackson Hole Airport station more comparable to the other stations.

Usually, where seven or more observations are missing in a single day, the missing data is replaced by the daily normal temperature. For the Jackson Hole Airport station, BPA adjusted days with three or more observations of missing data and replaced the missing data with the higher of the daily normal temperature or the daily average temperature. This adjustment for the Jackson Hole Airport station resulted in a change in Lower Valley’s weather adjustment for FY 2010 from a value of -2.014 to -1.196 and Fall River Electric’s weather adjustment for FY 2010 from -0.383 to -0.217. BPA adjusted the values for FY 2007 and FY 2008 as well, but this made no impact on either of the customers’ CHWMs. In refining the criteria for this situation, BPA has made a reasonable adjustment while not overcompensating and removing all data impacts.

Days with Missing Weather Observations



b. Grant PUD’s Comment Concerning its Weather Station

During the March 17th public meeting, Grant PUD (Grant) commented that it did not have an opportunity to choose its weather station and the station that was used was approximately 50 miles from the Grand Coulee load and, therefore, not necessarily the most appropriate station to use for the weather adjustment. Early in the weather normalization process BPA contacted every customer to verify the customer’s choice as to what weather station to use. At that time BPA did not expect that Grant would enter into a Regional Dialogue power sales agreement with BPA and therefore did not contact Grant regarding its choice of weather station. Later, after Grant requested and executed a

Regional Dialogue power sales agreement for service to its Grand Coulee load, BPA inadvertently overlooked this step in the weather adjustment process.

In order to apply the weather normalization methodology consistently and equitably, BPA gave Grant the opportunity to choose between the weather station that was being used to weather normalize its loads and another station that meets BPA's predefined criteria for weather stations and is located closer to the Grand Coulee load. Grant was required to make this decision without knowing what station would have a more favorable result and with the understanding that it could not switch back to the other station if the result was unfavorable. Grant did not reply within the required timeframe indicating that it wanted to use the alternate weather station, so BPA did not change the station used to weather normalize Grant's loads.

II. Additional Comments

a. The City of Centralia's Request to Change the TRM Attachment C Resource Amount for Yelm Hydro

The City of Centralia (Centralia) requested that BPA reconsider its Yelm hydro resource amount that is stated in Attachment C of the TRM and was determined in the 2008 public process BPA conducted to clarify customer resource amounts for the CHWM calculations. Centralia requested that BPA adjust the Yelm hydro amount from the 7.835 aMW stated in Attachment C of the TRM to 5.960 aMW, which Centralia states is an amount based on critical water output. BPA has considered Centralia's request to adjust this resource amount, but will continue to use the Yelm hydro resource amount stated in Attachment C of the TRM for the calculation of Centralia's CHWM for the following reasons.

On July 19, 2007, BPA issued its Long-Term Regional Dialogue Final Policy (July 2007 Policy). The July 2007 Policy stated that for purposes of calculating a customer's CHWM "...BPA will use the FY 2010 resource amounts as of September 30, 2006, identified in the customers' Subscription contracts." After the July 2007 Policy was released BPA discovered that, for purposes of calculating individual customer CHWMs, there was inaccurate and missing information regarding some customers' FY 2010 resources contained in Exhibit C of their Subscription power sales agreements with BPA. Therefore, on June 6, 2008, BPA issued for public review and comment its *Clarification on the Use of Customer Resource Amounts for High Water Mark Calculations*. This was a general public process with the stated objective of arriving at the final numbers that would be used in the CHWM process. Customers had an opportunity to provide information and make comments to BPA on their resource amounts.

The Yelm hydro resource was one of several resources identified as having missing FY 2010 resource amounts in Exhibit C of the Subscription power sales agreement. In the June 6, 2008, letter BPA proposed to calculate these missing resource amounts based on information available to BPA as of September, 30, 2006. The amounts for several resources, including Yelm hydro, were proposed to be based on average actual generation

amounts for each resource from 2001 through 2005. During the 2008 public process Centralia did not submit any comments or make a request that BPA should determine the Yelm hydro amount differently.

At the end of the 2008 public process BPA published a letter, *Close-Out Summary: Clarification on the Use of Customer Resource Amounts for High Water Mark Calculations*, that addressed all comments and reported BPA's findings and final numbers on the CHWM resource amounts. The customers' resource amounts were then added to Attachment C of the TRM and became a part of the TRM that BPA adopted on September 2, 2009. BPA believes the current review of the CHWM calculations was not intended to adjust customer resource amounts that were previously calculated and final as of the Administrator's adoption of the TRM. The final decision on the Yelm hydro amount is consistent with the Regional Dialogue Policy, the TRM, and the intent of the 2008 public process described above.

Under the terms of the TRM, BPA is not able to change any FY 2010 dedicated resource amounts stated in Attachment C except through a process described in section 13 of the TRM, *Processes for TRM Revisions*. This process assigns the public utility customers collectively with the obligation to accept or reject proposed modifications. For the forgoing reasons Centralia's Yelm hydro resource amount will remain as stated in Attachment C of the TRM adopted on September 2, 2009.

b. The City of Ellensburg's Comment Regarding the CHWM amount for the Anderson Hay Load

The City of Ellensburg (Ellensburg) comments that it has yet to enter into a formal agreement with Kittitas PUD (Kittitas) for service to the Anderson Hay load, and, therefore, BPA should not transfer the load from Ellensburg to Kittitas in the CHWM process. During the timeframe when the CHWMs were calculated Ellensburg was wheeling power to Kittitas' customers, Anderson Hay, and Kittitas served and billed for that load. Since then, Kittitas has completed construction of a distribution line and is currently serving the Anderson Hay load. The utilities are in agreement as to what the CHWM amount associated with this load is. Accordingly, BPA finds that Kittitas is currently serving the load over its distribution system and the load is part of Kittitas' Total Retail Load even though a formal transfer agreement has not been executed. BPA has correctly included the load in Kittitas' CHWM. Whether or not Ellensburg and Kittitas have entered into a formal agreement regarding the service for this load does not affect this CHWM decision. The TRM and Regional Dialogue power sales agreement includes provisions for the transfer of load and CHWM annexed from one public customer to another public customer. The utilities are free to enter into an agreement that stipulates further details regarding the CHWM amount associated with the Anderson Hay load in case service to this load changes in the future.

c. Jefferson County PUD and Port Townsend Paper Company's Request to include the Port Townsend Paper Load in Jefferson County PUD's CHWM

Port Townsend Paper Company (PTPC) requested that BPA include the entire load for its Unbleached Kraft Pulp and Paper mill, located in Jefferson County, Washington, in Jefferson County PUD's (Jefferson PUD) CHWM. Jefferson PUD supported PTPC's request. The mill consists of two distinct plant loads, the Old Corrugated Cardboard (OCC) load (3.236 aMW) and the Unbleached Kraft Pulp and Paper load (approximately 17 aMW). In 2006, BPA determined that the OCC load was a new and separate facility from the rest of the plant load. At this time, BPA will include the OCC plant load in Jefferson PUD's CHWM as part of its FY 2013 Total Retail Load, but will not include the Unbleached Kraft Pulp and Paper load. For the Unbleached Kraft Pulp and Paper load, BPA will conduct a separate review process to evaluate PTPC's request to include the load in Jefferson PUD's CHWM. Jefferson PUD's CHWM will not be final until the conclusion of this review process.

PTPC's request raises the issue of changes in BPA's New Large Single Load (NLSL) policy, which involves broader issues than just Jefferson PUD's CHWM under the TRM. BPA believes that a separate process will provide a more appropriate forum to better evaluate this request. BPA understands the importance of making a final determination of Jefferson PUD's CHWM in a timely manner and intends to begin this review process shortly.

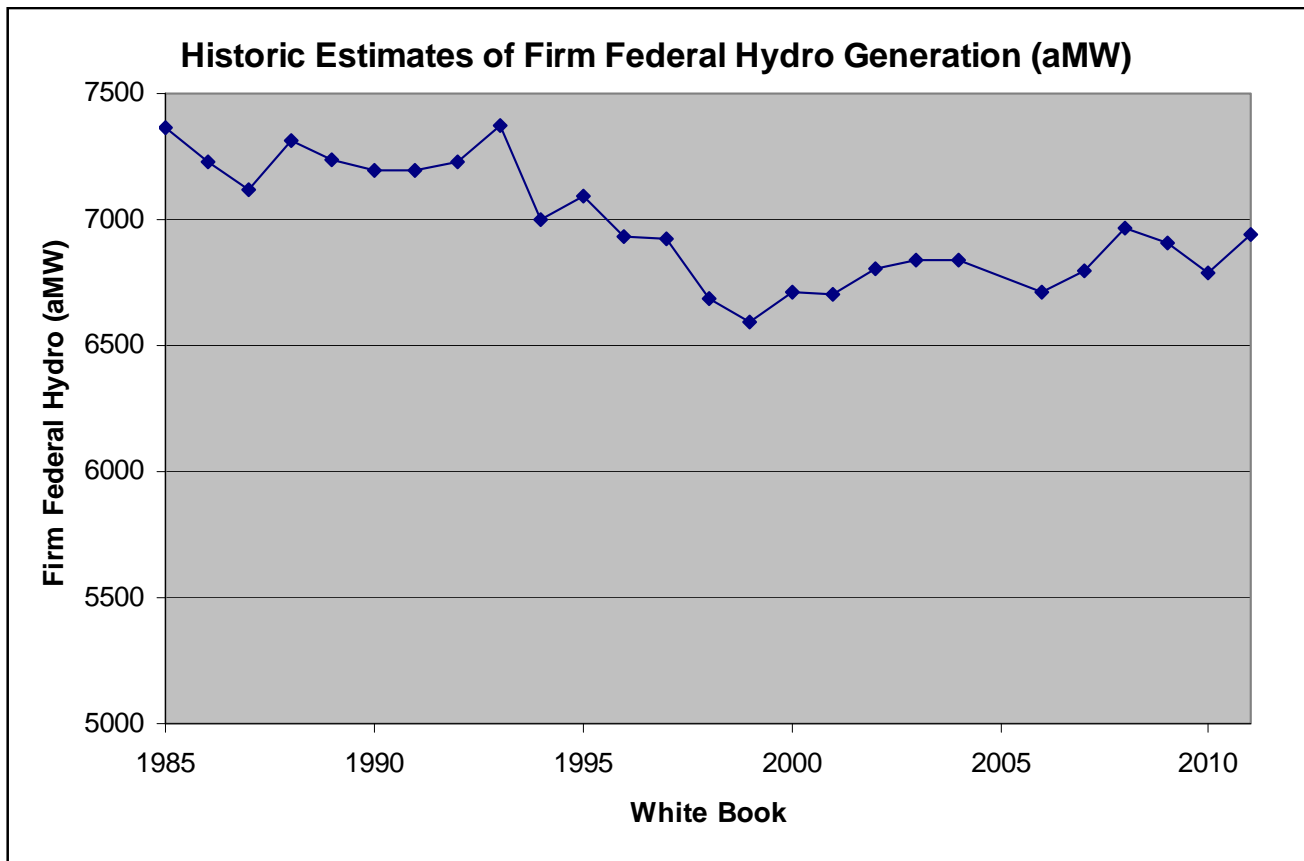
The PTPC OCC load as a separate facility is distinct from the Unbleached Kraft Pulp and Paper load. Jefferson PUD's CHWM does include the OCC load, as proposed in the March 11, 2011 CHWM calculations. As part of the basis for including the OCC load in Jefferson PUD's FY 2013 forecast Total Retail Load, BPA requested that Jefferson PUD provide BPA with a copy of a binding service agreement with PTPC to serve the OCC load. A service agreement between Jefferson PUD and PTPC was executed on March 25, 2011. Accordingly, BPA finds it is reasonable to include the OCC load in Jefferson PUD's CHWM as part of its FY 2013 forecast Total Retail Load.

III. Data Requests

a. NRU's Request for More Information on Future T1SFCO Calculations

NRU requested more information on future T1SFCO calculations. While BPA understands the importance to customers of being able to plan for meeting Above Rate Period High Water Mark (RHW) load obligations in future years, BPA does not want to speculate on the value of the T1SFCO in future rate periods. The T1SFCO is determined in a RHW Process prior to each corresponding rate period and is subject to change for many reasons that are generally beyond BPA's control. This includes, but is not limited to, changes in load, changes in flow or spill requirements for fish, revisions to Canadian operations, updates to flood control rule curves, Columbia Generating Station (CGS) generation, and updates in PNCA planning data. The graph below shows that based on recent past experiences the range for these changes is around 200 aMW;

however, it is possible to see larger changes. BPA suggests customers review past White Books if they would like to gain a better understanding of the T1SFCO calculation.



b. Springfield Utility Board’s Request for Information on Additional CHWM Amounts

Springfield Utility Board requests further clarification of the Additional CHWM Amounts for the Tribes, DOE-Richland and the New Publics. The “Additional CHWM_published” tab of the CHWM calculation spreadsheet shows how these amounts were calculated, including the forecast Total Retail Load (TRL), forecast New Large Single Loads (NLSLs), and Existing Resource amounts. The TRL forecasts for these customers are the forecasts that will also be used in the BP-2012 rate case and were determined in the same process and using the same standards as the TRL forecasts for all customers.

The CHWM calculation spreadsheet is available on BPA’s website at <http://www.bpa.gov/power/pl/regionaldialogue/implementation/documents/#HW>.

Appendix A: List of Commenters

Log No.	Commenter	Affiliation
CHWM110001	Sandy Hunt	Pend Oreille County PUD 1
CHWM110002	Kyle Roadman	Emerald People's Utility District
CHWM110003	Ken Dizes	Salmon River Electric Cooperative, Inc.
CHWM110004	Marcus Wood	Port Townsend Paper Corporation
CHWM110008	James Webb	Lower Valley Energy
CHWM110010	Randy Leach	City of Centralia
CHWM110011	Harry Williams	City of Centralia
CHWM110012	Douglas Brawley	PNGC Power
CHWM110013	James Parker	Public Utility District No. 1 of Jefferson County
CHWM110014	Jeff Nelson	Springfield Utility Board
CHWM110015	Geoffrey Carr	NRU
CHWM110016	Bob Titus	City of Ellensburg
CHWM110017	Keith Knitter	Grant County PUD

Appendix B: Proposed Final Contract High Water Marks by Customer

Proposed Final Contract High Water Marks (CHWMs)			
	Customer	CHWM (includes Provisional CHWM)	Provisional CHWM Amount
		aMW	aMW
1)	ALBION	0.404	0
2)	ALDER	0.556	0
3)	ASHLAND	21.383	0.769
4)	ASOTIN	0.610	0.028
5)	BANDON	7.753	0
6)	BENTON PUD	204.642	0
7)	BENTON REA	67.956	0
8)	BIG BEND	62.107	0
9)	BLACHLY-LANE	17.879	1.263
10)	BLAINE	8.877	0
11)	BONNERS FERRY	5.399	0
12)	BURLEY	14.274	0
13)	CANBY	20.612	0
14)	CASCADE LOCKS	2.638	0.225
15)	CENTRAL ELEC COOP	83.072	0
16)	CENTRAL LINCOLN PUD	159.010	0
17)	CENTRALIA	24.735	0
18)	CHENEY	16.053	0
19)	CHEWELAH	2.887	0.076
20)	CLALLAM PUD	77.162	0
21)	CLARK PUD	323.245	9.533
22)	CLATSKANIE PUD	94.974	1.904
23)	CLEARWATER	24.523	1.658
24)	COLUMBIA BASIN	12.299	0
25)	COLUMBIA POWER	3.283	0
26)	COLUMBIA REA	38.255	0
27)	COLUMBIA RIVER PUD	61.254	5.595
28)	CONSOLIDATED	0.231	0
29)	CONSUMERS	46.355	0
30)	COOS-CURRY	41.485	0.095
31)	COULEE DAM	2.055	0.030
32)	COWLITZ	557.392	0
33)	DECLO	0.364	0.007

Proposed Final Contract High Water Marks (CHWMs)			
	Customer	CHWM (includes Provisional CHWM)	Provisional CHWM Amount
34)	DOUGLAS ELEC COOP	19.291	0.625
35)	DRAIN	2.479	0.590
36)	EAST END	2.727	0
37)	EATONVILLE	3.418	0
38)	ELLENSBURG	24.340	0.129
39)	ELMHURST	32.719	0
40)	EMERALD	53.228	2.525
41)	ENW	2.910	0.077
42)	EWEB	254.843	4.482
43)	FAIRCHILD	7.402	1.209
44)	FALL RIVER	33.624	0
45)	FARMERS	0.515	0
46)	FERRY PUD	11.839	0
47)	FLATHEAD	169.311	4.194
48)	FOREST GROVE	27.275	1.731
49)	FRANKLIN PUD	119.102	0
50)	GLACIER	21.635	0
51)	GRAYS HARBOR PUD	133.174	4.535
52)	HARNEY	23.092	0
53)	HERMISTON	13.130	0
54)	HEYBURN	4.889	0
55)	HOOD RIVER	13.294	0
56)	IDAHO FALLS	80.743	0
57)	IDAHO COUNTY LIGHT	6.306	0
58)	INLAND	109.349	0
59)	KITTITAS PUD	9.847	0
60)	KLICKITAT PUD	37.206	0
61)	KOOTENAI	51.760	0
62)	LAKEVIEW	33.839	0.232
63)	LANE	29.537	0
64)	LEWIS PUD	115.429	0
65)	LINCOLN MT	14.789	0.611
66)	LOST RIVER	9.668	0
67)	LOWER VALLEY	87.321	0
68)	MASON PUD1	9.121	0.003
69)	MASON PUD3	81.121	0.192

Proposed Final Contract High Water Marks (CHWMs)			
	Customer	CHWM (includes Provisional CHWM)	Provisional CHWM Amount
70)	MCCLEARY	4.236	0.463
71)	MCMINNVILLE	105.779	19.903
72)	MIDSTATE	47.443	0
73)	MILTON	7.548	0
74)	MILTON-FREEWATER	10.698	0.099
75)	MINIDOKA	0.120	0
76)	MISSION VALLEY	38.518	0.404
77)	MISSOULA	27.388	0
78)	MODERN	26.677	0
79)	MONMOUTH	8.488	0
80)	NESPELEM	5.969	0
81)	NO WASCO PUD	65.731	0
82)	NORTHERN LIGHTS	36.464	0
83)	OHOP	10.310	0
84)	OKANOGAN PUD	49.678	3.758
85)	OKANOGN ELEC COOP	6.626	0
86)	ORCAS	25.103	0.263
87)	OREGON TRAIL	82.488	4.156
88)	PACIFIC PUD	36.869	0
89)	PARKLAND	14.278	0.027
90)	PEND OREILLE PUD	29.444	3.291
91)	PENINSULA	73.059	0
92)	PLUMMER	4.004	0.010
93)	PORT ANGELES	86.755	0
94)	PORT OF SEATTLE	17.536	0
95)	RAFT RIVER	38.633	4.973
96)	RAVALLI	18.791	0
97)	RICHLAND	102.600	0
98)	RIVERSIDE	2.408	0
99)	RUPERT	9.563	0
100)	SALEM ELEC	39.976	0.708
101)	SALMON RIVER	31.857	0
102)	SEATTLE	531.727	0
103)	SKAMANIA PUD	16.144	0
104)	SNOHOMISH PUD	810.990	0
105)	SODA SPRINGS	3.103	0.085

Proposed Final Contract High Water Marks (CHWMs)			
	Customer	CHWM (includes Provisional CHWM)	Provisional CHWM Amount
106)	SOUTH SIDE	6.866	0
107)	SPRINGFIELD UTILITY BOARD	102.208	0
108)	STEILACOOM	4.880	0
109)	SUMAS	3.697	0
110)	SURPRISE VALLEY	16.677	0
111)	TACOMA	408.393	0
112)	TANNER	11.197	0
113)	TILLAMOOK PUD	56.865	0
114)	TROY	2.068	0
115)	UMATILLA	114.912	0
116)	UMPQUA	3.580	0
117)	UNITED	30.424	0
118)	USBIAWAPATO	1.846	0.032
119)	USDOE ARC	0.465	0
120)	USDOE RICH	26.651	0
121)	USN BANGOR	20.726	0
122)	USN JIMCRK	1.550	0
123)	USN PUGET	30.914	0
124)	VERA WATER AND POWER	27.562	0
125)	VIGILANTE	19.438	0
126)	WAHAKIAKUM	5.080	0
127)	WASCO	13.596	0
128)	WEISER	6.423	0
129)	WELLS	97.200	0
130)	WESTOREGON	8.735	0.127
131)	WHATCOM PUD	27.233	0
132)	YAKAMA	4.768	0
133)	GRANT - GRAND COULEE	5.269	0
134)	JEFFERSON PUD ¹	40.772	0
	TOTAL	7180.993	80.617

¹ Jefferson PUD's CHWM will not be final until the conclusion of the review process discussed in section II(c) of this paper.