Oregon
John Kitzhaber, Governor

Department of Fish and Wildlife
High Desert Region
61374 Parrell Road
Bend, OR 97702
(541) 388-6363
FAX (541) 388-6281

February 24, 2014

Ms. Dana Hall, Deputy Director
Low Impact Hydropower Institute
131 Martha Road
Harrington Park, New Jersey 07640

Via Electronic Mail

Re : Letter of Support for Low Impact Hydro Institute Re-certification for Farmers Irrigation District, Hood River Oregon (FERC P-6801 and P-7532)

Dear Ms. Hall,

The Oregon Department of Fish and Wildlife (ODFW) express our support for re-certification of the Farmers Irrigation District hydropower operation by the Low Impact Hydropower Institute. This support is contingent upon the implementation and continual operation of the hydropower system as described in the attached Memorandum of Agreement (MOA) for Hydroelectric Operation Conditions with Exhibits A and B, dated August 22, 2011.

The Farmers Irrigation District is a leader in innovation for water conservation, and implementation of these low impact actions will help to protect and enhance fish populations in the Hood River. These implemented measures will help maintain minimum stream flows which assist in providing and protecting necessary fish and wildlife habitat in the Hood River Basin. These actions will provide added protection for Endangered Species Act protected fish species, and help reach recovery goals for the Hood River in The Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead.

The operational conditions in the attached MOA are not regulatory requirements, but are voluntary actions that ODFW believes are suitable for support of low impact hydro certification. These actions alone will not ensure the sustainability of the healthy fish populations in the Hood River Basin, but will provide a foundation for further restoration activities to build upon.

ODFW appreciates the voluntary support from the Farmers Irrigation District, and we believe their efforts are consistent with the requirements to qualify for Low Impact Hydropower Certification. If you have further questions, please feel free to contact me at Ted.G.Wise@state.or.us, or 541-633-1115.

Sincerely,

Ted Wise
ODFW High Desert Area Hydropower Coordinator/Eastern Oregon Region

ec: Jer Camarata, FID
Bonnie Lamb, ODEQ

Attachment 3

Oregon
John A. Kitzhaber, MD, Governor

Department of Environmental Quality
Eastern Region Bend Office
475 NE Bellevue Drive, Suite 110
Bend, OR 97701-7415
(541) 388-6146
Fax (541) 388-8283
TTY 711

February 26, 2014

Ms. Dana Hall
Low Impact Hydropower Institute
P.O. Box 194
Harrington Park, NJ 07640

Via Electronic Mail

Re: Letter of Support for Low Impact Hydro Institute Re-certification for Farmers Irrigation District, Hood River Oregon (FERC P-6801 & P-7532)

Dear Ms. Hall,

The Oregon Department of Environmental Quality (DEQ) expresses our support for Low Impact Hydropower re-certification of the Farmers Irrigation District (FID) hydropower operation. This support is contingent upon the implementation and continual operation of the hydropower system as described in the attached Memorandum of Agreement (MOA) for Hydroelectric Operation Conditions, including Exhibits A and B, dated August 22, 2011.

Exhibit B of the MOA identifies temperature monitoring that FID agreed to do in order to evaluate the possible effects of their hydropower system operation on temperatures in the Hood River. The Exhibit identifies the conclusion of the Evaluation period as being November 15, 2011. FID prepared a report for the evaluation period and provided it to DEQ and ODFW in January, 2012. FID, in conjunction with the Hood River Watershed Group and other watershed partners, has continued to collect temperature data at a number of locations along the Hood River. This data is summarized each year in a report provided to all local partners. FID has indicated that they will continue to implement their temperature monitoring program.

As outlined in Exhibit A, FID has also continued to modify the amount of water that they divert from the Hood River during periods of low flow, which should have a direct benefit for stream temperatures.

The operational conditions in the MOA are not regulatory requirements, but are voluntary actions that DEQ and ODFW believe are suitable for support of low impact hydro certification. These actions alone will not ensure the attainment of water quality standards and the sustainability of healthy fish populations in the Hood River Basin, but are one piece of the picture that will improve future conditions.

DEQ appreciates the voluntary actions of the Farmers Irrigation District, and we believe their efforts are consistent with the requirements to qualify for Low Impact Hydropower Certification. If you have any further questions, please feel free to contact me at lamb.bonnie@deq.state.or.us or 541-633-2027.

Sincerely,

Bonnie Lamb
Hood Basin TMDL Coordinator

ec: Jer Camarata, FID
Marilyn Fonseca, DEQ
Ted Wise, ODFW

Attachment 4

Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, and Farmers Irrigation District Memorandum of Agreement for Hydroelectric Operation Conditions for the Purpose of Meeting Low-Impact Hydropower Institute Certification
22 August 2011

Whereas the Farmers Irrigation District (District) is committed to completing its 35-year irrigation enhancement and natural resource restoration and protection plan as described in the District's Sustainability Plan (Plan), which is specifically incorporated herein by reference, the actions of which include:

- Restore Green Point Creek flood plains, riparian areas, sinuosity, and fish passage; and

- Install horizontal fish screens on District diversions to safely pass fish of all life stages without injury; and

- Install over 65 miles of pipe, eliminating open canals and ditches, replacing older sprinkler technology with micro-sprinkler systems, thus collectively decreasing irrigation water consumption and restoring 10,000 acre feet of water per season to in-stream flow in the Hood River, decreasing water temperature, eliminating non-point source pollutant transport, and eliminating canal failures and associated sedimentation.

Whereas the District must continue to realize a financial return on its investments in irrigation enhancement and natural resource restoration and protection in order to complete its Plan; and

Whereas the Oregon Department of Fish and Wildlife's (ODFW's) goal is to implement measures to improve in-stream flow in the Hood River for fish spawning, rearing, and immigration, and ODFW is working with the Oregon Department of Environmental Quality (ODEQ) to improve water temperature; and

Whereas ODEQ's goal is to implement measures to improve water temperature, and ODEQ is working with ODFW to implement measures to improve in-stream flow in the Hood River for fish spawning, rearing, and immigration, these outcomes advanced by the District's Plan; and

Whereas the District, ODFW, and ODEQ (collectively "the Parties") wish to further the overall positive outcomes of the District's Plan, the following assumptions are presented herein as the foundation for mutually beneficial outcomes for the common good:

- District has secured and, if economically sustainable, will maintain Low-Impact Hydropower Institute (LIHI) certification (Certification) to obtain increased revenue from the sale of Renewable Energy Certificates (RECs, also sometimes known as Green Tags), this revenue dedicated to advancing the District Plan; and

- ODFW and ODEQ will realize improved water quality and water quantity, these outcomes promoted by the District's Plan in the best interest of farms and fish protection; and

- District will realize net positive revenue from its RECs such that the practices prescribed herein may be continued; and

- Provided that District RECs result in net positive revenue to the District, then, beginning Summer 2011, in accord with the conditions set forth in Exhibit A (In-stream Flow Methodology), which is specifically incorporated herein by reference, District will forego hydropower production from July through October as more specifically prescribed in Exhibit A; and

- Provided further that District will complete the action items as prescribed in Exhibit B (Temperature Monitoring Methodology), which is specifically incorporated herein by reference.

Exhibit A

In-stream Flow Methodology

Oregon Department of Fish and Wildlife LIHI Certification Requirements:

The District will operate and maintain existing fish protection and mitigation measures as conditioned by the agencies in the FERC exemption.

Furthermore, ODFW will support the District's effort to maintain Certification so long as the District continues to operate in the manner described herein.

The District agrees to contact the ODFW field office in The Dalles when ceasing hydropower diversion, or starting hydropower diversion, and will provide a yearly summary report of the operational shut-down periods by the close of each calendar year.

To meet ODFW low impact hydropower operation Certification requirements, beginning from the date of this agreement and continuing so long as this agreement remains in effect, the District shall operate its hydroelectric system based on in-stream flows in the Hood River as measured at the USGS gauge transect at Tucker Bridge according to the following prescribed parameters:

> During the months of July through October, when daily mean discharge in the Hood River is below 250 cfs for three consecutive days, diversion from the Hood River into Farmers Canal, as measured at the Farmers Canal broad crested weir, shall not exceed 40 cubic feet per second until the daily mean discharge in the Hood River exceeds 250 cfs for three consecutive days.
>
> Furthermore, beginning at 8:00 a.m. on October 1 and continuing to 8:00 a.m. on October 15, the District shall cease all diversion from the Hood River into Farmers Canal.

Exhibit B

Temperature Monitoring Methodology

Oregon Department of Environmental Quality LIHI Certification Requirements:

The District will operate and maintain existing fish protection and mitigation measures as conditioned by the agencies in the FERC exemption.

ODEQ will support the District's effort to obtain and maintain low impact hydropower certification as long as the District's hydropower system operation does not cause thermal effects in excess of ODEQ standards.

The District agrees to contact the ODEQ field office in Bend if hydropower operation conditions change.

To meet ODEQ compliance conditions and determine the thermal effects of its hydropower system operation as to:

1) How the Farmers Irrigation District tailrace affects temperatures in the Hood River; and

2) How the Farmers Canal diversion affects temperatures in the Hood River;

The District shall collect data at the upstream end of the FID Canal diversion to determine the temperature of the river at the point of diversion and, also, in the Plant 2 tailrace upstream of the Hood River to assess how much the diverted water temperature rises, falls, or remains constant at the tailrace (just before entering the river) relative to the river temperature at the Farmers Canal diversion. A third temperature shall be collected in the mixing zone in the vicinity of the old Powerdale Dam site as more particularly described in Item 5, below.

To assess the thermal effects of the diversion as separate from natural heating that might occur along the project bypass reach on the Hood River, river temperatures in the Hood River above the confluence with Neal Creek shall also be collected.

To date, water temperature data have been, or will be, collected daily in hourly intervals as follows:

-April 16 through October 1, 2009
-April 15 through November 4, 2010
-April 1 through November 15, 2011

These data are collected at the following approximate locations:

1) Farmers Canal diversion headgate inlet on the Hood River (Headgate site)
2) Farmers Plant 2 tailrace prior to flow entering the Hood River (Tailrace site)
3) Hood River above the mouth of Neal Creek (to assess heating impacts in the bypass reach)
4) Mouth of Neal Creek and possibly Odell Creek
5) Pre-Powerdale Dam removal temperature readings were collected in the Hood River approximately 100 feet below Powerdale Dam. Post-Powerdale Dam removal temperature readings are being collected in the sample area below the Plant 2 tailrace where the Plant 2

tailrace discharge amount is approximately 25% of the Hood River flow amount (Mixing Zone site).

At the conclusion of the evaluation period (November 15, 2011), the temperature data collected to date will be evaluated and the scope of additional monitoring, if required, will be identified at that time.

All Parties approve and agree to this Memorandum of Agreement and Associated Exhibits and agree to write letters in support of the District's effort to maintain Low-Impact Hydropower Institute Certification so long as the District continues to operate in the manner described.

Michael Kleinsmith, District Manager
Farmers Irrigation District

8/23/11
Date

Rod French, Mid-Columbia District Fish Biologist
Oregon Department of Fish and Wildlife

8/29/11
Date

Bonnie Lamb
Water Quality Division
Oregon Department of Environmental Quality

9/2/11
Date

Attachment 5

2012 Update on the Thermal Impact from the Farmers Irrigation District Hydroelectric Facility on the Hood River

Introduction

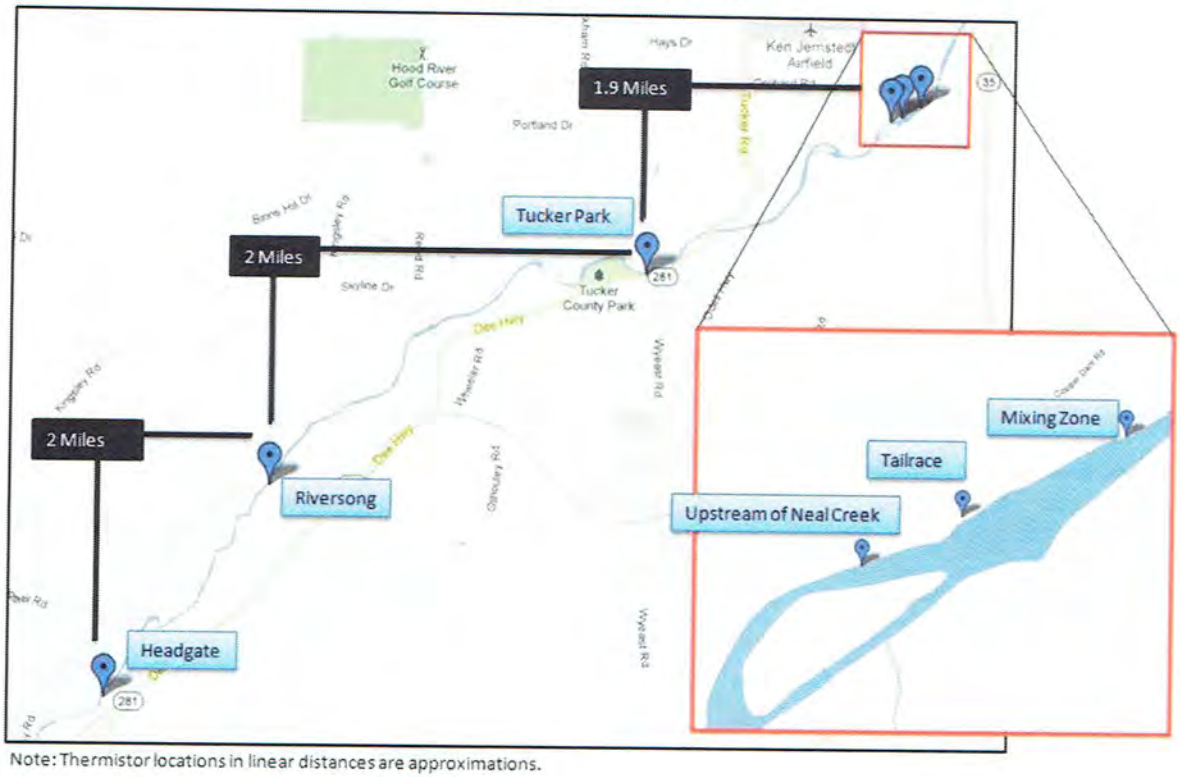
This report is an update to Farmers Irrigation District's (FID) *Thermal Impact on the Hood River from the Farmers Irrigation District Hydroelectric Facility* paper released in January 2012. Temperature monitoring in the Hood River has continued through 2012 to continue assessment of the thermal impact of FID's hydroelectric system operations on the bypass reach and of tailrace water inputs on the mainstem Hood River. This extended voluntary study supports a 2011 MOA with Oregon Department of Fish and Wildlife (ODFW) and Oregon Department of Environmental Quality (ODEQ) providing support for Low Impact Hydro Institute certification. Data presented in this report were collected and assessed by the Hood River Watershed Group (HRWG) in an effort to gain third-party assessment and corroboration.

Methods

The HRWG Technician took over data collection and analysis from FID Technicians starting May 8, 2012. Throughout the year, water temperature data were collected at 6 points along the Hood River, beginning at the upstream end of the project at the Farmers Canal diversion and ending at the Mixing Zone below the FID Hydroelectric Plant #2 tailrace return flow. Temperature data were collected at relatively uniform intervals (~2 miles each) along the Hood River (Figure 1). Temperature data collection sites (and the rationale for site selection) on the Hood River are as follows:

1. Headgate, at the Farmers Canal diversion inlet on the Hood River, located at river mile 11.4 – to establish the ambient, baseline Hood River water temperatures independent of any influence from FID hydroelectric plant operation.
2. Riversong, located approximately 2 linear miles from the Headgate site – to provide temperature data along the project bypass reach below the point of diversion and above the FID facility tailrace in an effort to discern the natural thermal response along the project bypass reach, as well as the thermal impact of FID hydroelectric project diversion.
3. Tucker Park, located approximately 4 linear miles from the Headgate site – to provide temperature data along the project bypass reach below the point of diversion and above the FID facility tailrace in an effort to discern the natural thermal response along the project bypass reach, as well as the thermal impact of FID hydroelectric project diversion.
4. Upstream of Neal Creek on the Hood River, located downstream of the Odell Creek convergence, but approximately 40 meters above the Neal Creek convergence – to provide temperature data near the end of the project bypass reach, but upstream of the FID hydroelectric plant tailrace flows, in an effort to discern the natural thermal response along the project bypass reach, as well as the thermal impact of FID hydroelectric project diversion.
5. Tailrace of the FID hydroelectric plant, prior to tailrace flow entering the Hood River at approximately 7.45 river miles downstream of the Farmers Canal inlet – to assess the thermal impact of water diverted through the Farmers Canal and discharged at the hydroelectric plant tailrace.
6. Mixing Zone, located approximately 500 feet downstream of the FID hydroelectric plant tailrace, in a sample area where the hydroelectric plant discharge is approximately 25% of the total Hood River flow amount during the late summer months – to assess the comprehensive thermal impact of FID hydroelectric plant operation on the Hood River compared to the natural thermal response absent hydroelectric plant diversion.

FID Thermistor Locations for 2012 Temperature Study



Note: Thermistor locations in linear distances are approximations.

Figure 1: Temperature data collection points for 2012.

Water temperature data were collected hourly throughout the year. All temperature data were collected and recorded using HOBOware Pro software v.3.4.0, as well as HOBO U22 Water Temp Pro v2 Data Loggers. The operation range for the sensors is -40°C to 70°C in air with a maximum sustained temperature of 50°C in water. Over a range 0°C to 50°C, sensor accuracy is +/-0.2°C and sensor resolution is 0.02°C at 25°C. For this study, the loggers were secured in place so that the risk of lost data was minimized. Care was taken to ensure that the loggers would withstand flood flows and the loggers were inspected on a regular basis to ensure that they did not become buried in sediment. Data retrieval before May 8th was sporadic. After May 8th, with a few exceptions, data were retrieved, downloaded, and plotted on a monthly basis (so as to detect and correct any anomalies related to faulty equipment or placement in the field). On these same monthly checks, the logger temperature readings were audited by a temperature reading from the HRWG's NIST thermometer (DEQ SN 51021 through August and SN 53065 after August). For all comparisons, the logger readings and field readings met DEQ's highest data quality level. The loggers were also calibrated using DEQ's water bath method on June 7, 2012. At the end of 2012, the data were compiled, checked for quality, and plotted. The 7-Day Maximum Moving Average water temperatures were generated utilizing the worksheet developed by the ODEQ Laboratory Quality Assurance Section.

The mean daily air temperature values were obtained from the US Bureau of Reclamation (BOR) Agrimet station at the Mid-Columbia Agricultural Research and Extension Center within the FID territory, a short distance from the FID hydroelectric facility. The average daily flow values (Q) in the Hood River were obtained from the USGS gauge site at Tucker Bridge, within the project bypass reach. The data for all of these parameters are stored electronically by HRWG and available upon request.

Results

Stream temperatures are highest at all monitoring sites in late summer. In general, stream temperatures at the downstream sites are warmer than sites upstream. Based on the 7-Day Maximum Moving Average water temperatures, the Upstream of Neal Creek site is warmer than the Mixing Zone site, especially during the summer months. The tailrace temperature is often colder than both the Upstream of Neal Creek and Mixing Zone temperatures (Figure 2). The temperature at the Upstream of Neal Creek site and Mixing Zone site are similar during the period of no diversion, but much less so during other parts of the year, especially summer (Figure 3).

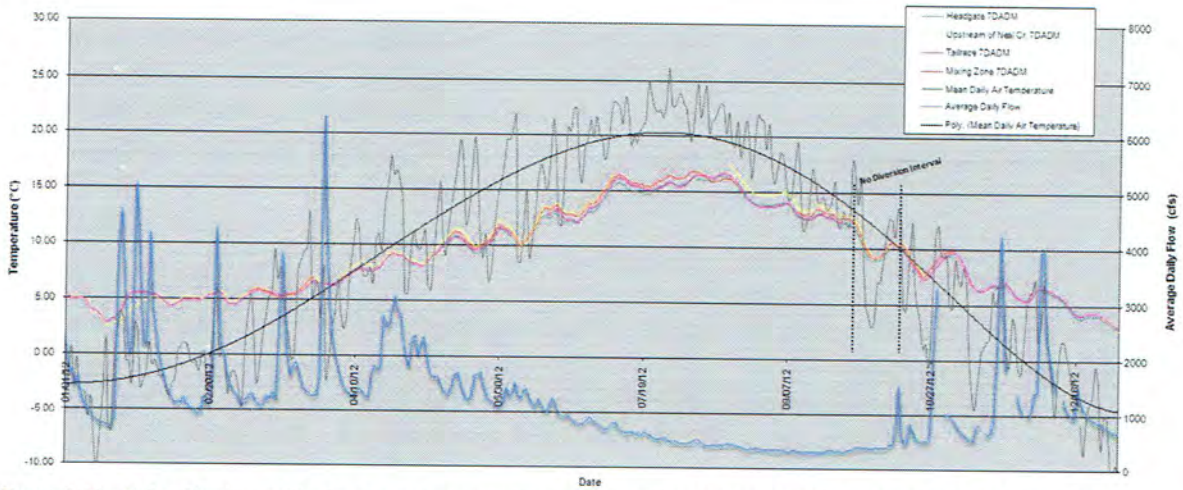


Figure 2: The 7-Day Maximum Moving Average water temperatures (°C) at the Headgate, Upstream of Neal Creek, Tailrace, and Mixing Zone sites for 2012. Mean daily air temperature (°C) and average daily flow (cfs) in the Hood River at Tucker Bridge are also shown. The vertical dotted lines delineate the period when the FID diversion was closed and therefore no water was diverted from the Hood River into the Farmers Canal.

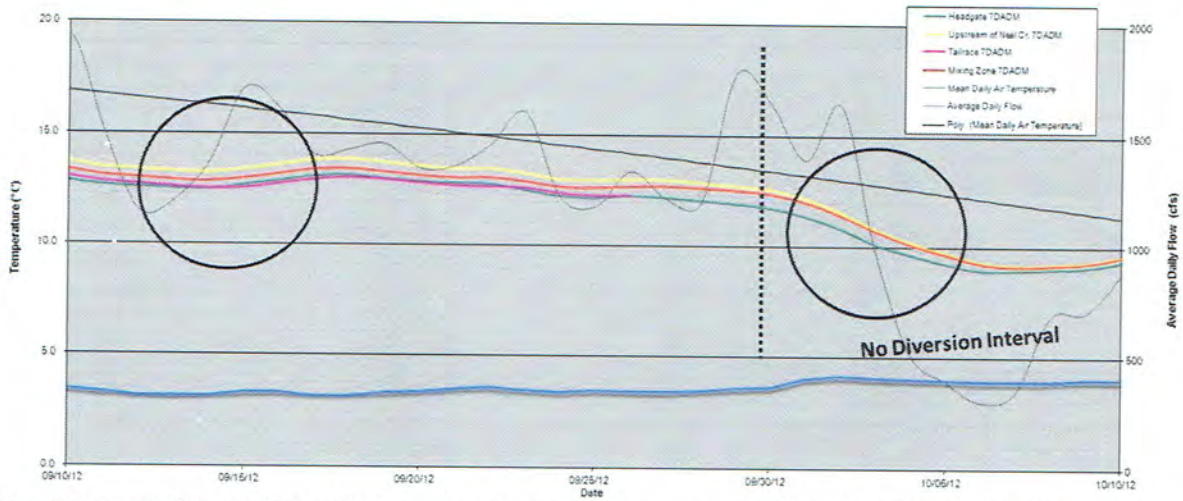


Figure 3: A subset of the 2012 7-Day Maximum Moving Average water temperatures (°C) at the Headgate, Upstream of Neal Creek, Tailrace, and Mixing Zone sites from September 10th to October 10th. Circles highlight a period of high diversion and a period of no diversion for comparison. The vertical dotted line delineates the beginning of the period when the FID diversion was closed and therefore no water was diverted from the Hood River into the Farmers Canal. Mean daily air temperature (°C) and average daily flow (cfs) in the Hood River at Tucker Bridge are also shown.

The temperature deltas between sites appear to spread during late summer and converge in the winter. The same pattern of Upstream of Neal Creek temperatures being warmer than Mixing Zone

temperatures can also be seen in the temperature differential calculations (Figure 4). The delta between Upstream of Neal Creek and Mixing Zone temperatures reduces during the period of no diversion, although the delta between the temperatures at all sites also reduces during a part of this same period. A sudden ambient air temperature drop was also observed during this period (Figure 5).

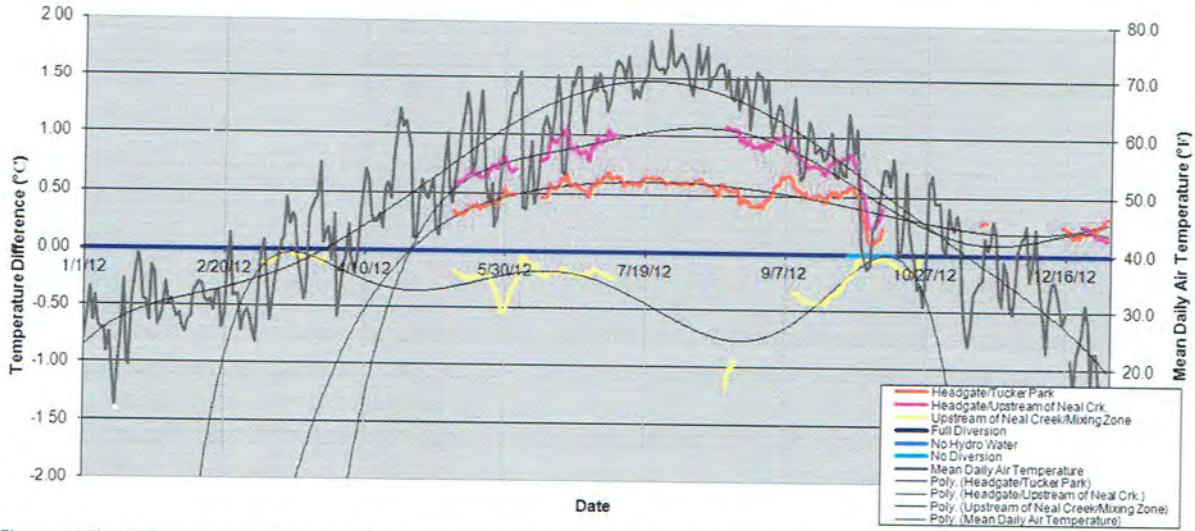


Figure 4: The 7-Day Maximum Moving Average water temperature (°C) deltas for the Headgate to Tucker Park, Headgate to Upstream of Neal Creek, and Upstream of Neal Creek to Mixing Zone sites for 2012. Mean daily air temperature (°F) is also shown.

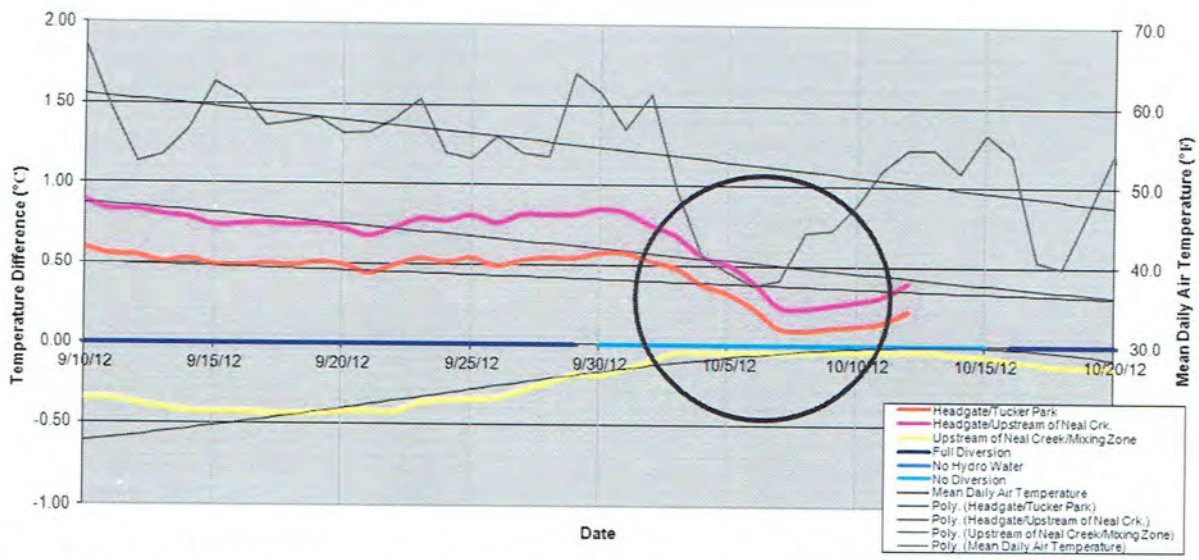


Figure 5: A subset of the 2012 7-Day Maximum Moving Average water temperature (°C) deltas for the Headgate to Tucker Park, Headgate to Upstream of Neal Creek, and Upstream of Neal Creek to Mixing Zone sites from September 10th to October 20th. The circle highlights a period of no diversion. Mean daily air temperature (°F) is also shown.

Discussion

Like the pattern seen in the 2009-2011 study, stream temperatures at all monitoring sites follow air temperature (peaking in late summer and decreasing in the winter) over the year. In addition, river temperatures tend to increase as river flows decrease, although this is likely due to lack of precipitation (and increased usage from irrigators) during the same time as peak air and water temperature.

Increased river temperatures in summer months are likely due to a natural summertime increase in solar radiation since peak usage and diversion levels don't substantially change from July to September. This can be substantiated in observations of river flow continuing to decrease through August and September while stream temperatures decrease and generally trend with ambient air temperature.

Water temperatures are generally warmer downstream than they are upstream. Temperatures would be expected to be higher at downstream sites given that lower sites have been exposed to ambient air temperatures for longer, as well as being exposed to solar radiation for longer durations. An exception to this general pattern is that the Mixing Zone temperatures are lower than temperatures at the Upstream of Neal Creek site, showing the same pattern as in the 2009-2011 data. The lower temperatures at the Mixing Zone site seem to be due to the lower temperatures entering the Hood River from the FID hydroelectric tailrace. The tailrace water is colder than the mainstem Hood River water at the Upstream of Neal Creek site, which given the short distance from the tailrace water can be assumed to be about the same as the mainstem Hood River water where the tailrace water enters and mixes. This assumption is likely given that temperatures at the Upstream of Neal Creek and Mixing Zones are nearly identical during the period of no diversion (September 30th-October 15th) when there is no tailrace water input. The temperature change over the distance from the Upstream of Neal Creek site to the Mixing Zone site without tailrace water inputs seems to be minimal, although it is recognized that the warmer (based on 2009-2011 data) Neal Creek water enters the mainstem in this stretch.

The FID tailrace water is consistently cooler than the Upstream of Neal Creek and Mixing Zone sites, especially in the summer. The tailrace water is likely cooler because it travels through buried pipe and is therefore not exposed to solar radiation like the in-channel water. The temperature difference between the mainstem Hood River water (Upstream of Neal Creek) and the tailrace water is generally less than 1°C. While it does seem to have a cooling impact on mainstem temperatures, it hopefully isn't enough to thermally shock aquatic inhabitants. It is probable, with the input of warmer Neal Creek water above the site of the FID tailrace, that the FID tailrace water may mitigate for warmer in-stream temperatures not associated with hydroelectric plant operations, providing a net benefit to the natural system.

Although data is limited, temperature deltas between sites seem to peak in the late summer when stream temperatures also peak. This is likely due to the higher air temperature, increased solar radiation, and lower stream flows during that time. Water temperatures would increase more quickly over the same distance because of all three factors. Increased temperature could also be partly due to the lower flows in the bypass reach as a result of FID's water diversion for hydroelectric operations, although this is unlikely given the differences seen during the no-diversion interval. The temperature deltas between sites (excluding the Upstream of Neal Creek to Mixing Zone difference) do not considerably change during most of FID's no-diversion interval, suggesting that the majority of temperature increase between sites is natural and not due to FID diversion. The smaller temperature difference between the Upstream of Neal Creek and Mixing Zone sites during the no-diversion interval suggests that the input of tailrace water is a substantial factor in explaining why the Mixing Zone is cooler during other parts of the year. There is a drop in the temperature deltas between all sites during the middle part of the no-diversion interval that could suggest that without diversion the temperature increase within the bypass reach would be lower. However, this decrease in temperature delta is more likely natural given that the trend is not consistent over the entire no-diversion interval and that it also coincides with a large drop (about 11°C) in ambient air temperature. River temperature deltas consistently follow ambient air temperature.

The major limitation to the 2012 study was a loss of data due to broken, buried, and lost loggers. Due to the HRWG monthly download versus the past FID weekly download intervals, there are data gaps when a malfunction (physical or technical) occurred. Such losses due to river sediment fluctuations or

computer malfunction will continue to be hard to avoid. Data limitations over 2012 limit the confidence of the conclusions reached from the data, but combined with the patterns seen in the 2009-2011 study years and the use of polynomial trendlines, a similar pattern of low or no impacts from FID's hydroelectric plant operations is seen. Given the data available, the tailrace flows from the FID hydroelectric plant seem to cool the mainstem Hood River water (generally by 0.5°C or less). Additionally, the available data suggests that FID's water diversion does not measurably increase stream temperatures in the bypass reach. A period of no-diversion during late summer would provide better data to evaluate FID's diversion impacts on bypass temperatures, but this will be very difficult to obtain given the irrigation needs of FID's customers during that critical pre-harvest time period. Continued monitoring would provide more data to confirm if the temperature regimes seen in 2009-2012 remain consistent. FID management has agreed to support the continued study of the thermal impacts of their hydroelectric plant operations until such analyses are deemed conclusive.

Attachment 6

FARMERS IRRIGATION DISTRICT

● 1985 Country Club Road, Hood River, OR 97031 Phone (541)-386-3115 Fax (541)-386-9103 www.fidhr.org ●

6 March 2012

Fred Ayer
Low Impact Hydropower Institute
34 Providence Street
Portland, Maine 04103

Dear Fred,

Thank you for your forthright response. I'm pleased to read that conditions one and two have been adequately addressed. By way of additional information regarding Condition 3, as described in my 23 December 2011 letter to you, Farmers Irrigation District (FID or District) operates two seasonal irrigation reservoirs (filled with spring runoff from Gate and Cabin creeks; emptied by late summer), but these irrigation reservoirs are not associated with the operation of the hydroelectric facilities. As you know, while Hood River County (HRC) operates a park at the upper irrigation reservoir and Oregon Department of Fish and Wildlife (ODFW) stocks the upper irrigation reservoir with trout each season, the irrigation reservoirs and associated park facilities are not parts of the FID hydroelectric project. While FID maintains a goal to develop and implement a mutually beneficial irrigation reservoir rehabilitation program to ensure continued safe operation and enhanced recreational opportunities in Hood River, the reservoir facilities are not now, and will not be in the future, a part of the FID hydroelectric system.

In an effort to clear up any confusion regarding our irrigation reservoirs and our hydroelectric facilities, I have incorporated a simple map that illustrates the project elements and configuration, including associated water sources, hydroelectric plant locations, penstocks, and water rights. Based on project layout, while it might appear that the irrigation reservoirs – the Kingsley Reservoirs, as they are named – are an integral component of the District's hydropower project, such is not the case. Although the District holds hydroelectric water right certificates for the use of waters from Gate Creek and Cabin Creek during the winter when the reservoirs are empty, the District holds no water rights for the use of any reservoir water for hydroelectric power production purposes. Furthermore, the irrigation reservoirs are empty throughout all of the peak hydroelectric power producing season. Said another way, it is illegal, and physically impossible, for the District to include its irrigation reservoirs as part of its hydroelectric project. Per the attached map, you can see that North Greenpoint Creek and Deadpoint Creek, to which we hold year-round hydro rights, feed the Lowline Canal, which is used to feed Forebay 3 and Plant 3 Penstock for hydro production.

That being said, while unrelated to its hydropower project, the District has for decades cooperated with ODFW and Hood River County, allowing open, unencumbered access to its irrigation reservoirs in direct

SINCE 1874
FARMERS IRRIGATION DISTRICT

● 1985 Country Club Road, Hood River, OR 97031 Phone (541)-386-3115 Fax (541)-386-9103 www.fidhr.org ●

support of ODFW's put-and-take trout fishery and HRC's campground facilities, the campsites for which are concentrated along the eastern perimeter of the upper irrigation reservoir.

So, in summary, the irrigation reservoirs are filled with supplemental irrigation water in late-spring of each irrigation season, and this stored supplemental irrigation water is used throughout each irrigation season to augment irrigation water delivery to high-value orchard land within the Farmers Irrigation District. By the end of each irrigation season, typically near the end of September of each year, the reservoirs are devoid of water. It is also of value to note that the hydroelectric generator in line with Gate and Cabin creeks is off-line throughout the regular irrigation months of the year as no surplus water is available for hydropower production even if the District had the legal right to use this irrigation water for power production. The Oregon Water Resources Department does not permit FID to use the irrigation reservoir water for hydropower production, the District's FERC conduit exemption does not allow for use of irrigation reservoir water, and limited physical water supply precludes the use of irrigation reservoir water for hydropower production. Accordingly, it is not appropriate to include the irrigation reservoirs as a component part of the District's hydropower project.

I hope this letter addresses the confusion regarding the District's irrigation reservoirs and their relationship to the FID hydropower project, and I look forward to hearing back from you after you have had time to review all our latest information. Thank you, Fred, and thanks to Gabriela as well.

Best,

Jer Camarata

District Manager
Farmers Irrigation District