# Rocky Reach Fish Forum

**Wednesday, 6 November 2013**
**1:00 – 4:00 p.m.**
**Chelan PUD Second Floor Conference Room**
**Wenatchee, WA**

Meeting called by Steve Hemstrom
Notes taken by Suzanne Hodgson

Chairperson, Tracy Hillman

### *Attending Representatives:*

| | | | |
|---|---|---|---|
| Hemstrom, Steve | Chelan PUD | (509) 661-4281 | steven.hemstrom@chelanpud.org |
| Irle, Pat (phone) | Ecology | (509) 454-7864p | pirl461@ecy.wa.gov |
| Lewis, Steve | USFWS | (509) 665-3508 x14 | stephen_lewis@fws.gov |
| Verhey, Patrick | WDFW | (509) 754-4624 | patrick.verhey@dfw.wa.gov |

### *Attending Participants:*

| | | | |
|---|---|---|---|
| Hillman, Tracy | BioAnalysts | (208) 321-0363 | tracy.hillman@bioanalysts.net |
| Hodgson, Suzanne | Chelan PUD | (509) 661-4758 | suzanne.hodgson@chelanpud.org |
| Jackson, Chad (phone) | WDFW | (509) 754-4624 x250 | chad.jackson@dfw.wa.gov |
| Keller, Lance | Chelan PUD | (509) 661-4299 | lance.keller@chelanpud.org |
| McLellan, Jason (phone) | CCT | (509) 263-1082 | jason.mclellan@colvilletribes.com |
| Miller, Donella (phone) | YN | (509) 945-0132 | mild@yakamafish-nsn.gov |
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# Meeting Minutes

## I. Welcome and Introductions

Tracy Hillman welcomed everyone to the Rocky Reach Fish Forum (RRFF) meeting and made known that voice recording of the meeting was initiated for note-taking purposes.

## II. Review of Agenda

The agenda was approved with an addition from Steve Lewis regarding the Chelan County Milfoil Treatment Proposal. This item was added under the Resident Fish section of the agenda.

## III. Review and Approval of Meeting Minutes

Minutes from the 2 October 2013 meeting were discussed. Pat Irle requested more information on the species and location of larval freshwater mussels reported by Steve Hays in the Water Quality Report section of the draft notes (page 2, second paragraph). Also, Tracy Hillman noted that Ralph Lampman questioned a reference to comments attributed to Chris Peery under the Pacific Lamprey section of the draft notes (page 3, second paragraph). The RRFF directed Tracy Hillman to contact both Steve Hays and Chris Peery to get clarification on statements made in the draft notes. The RRFF agreed to retain the October meeting notes as draft, pending the addition of footnotes on these two areas of concern, for approval at the December meeting.

**Action Item:**

- **Tracy Hillman will follow up with Steve Hays and Chris Peery and add appropriate footnotes to the draft notes for approval at the December meeting.**

## IV. Water Quality

### Update on Water Quality in Macrophyte Beds Report

Tracy Hillman reported that Steve Hays sent the draft Water Quality in Macrophyte Beds Report to the RRFF for their review, and that comments had been returned to Steve. He added that Steve is working on addressing the comments for the final report, which is due to the Forum on 15 November 2013.

**Action Item:**

- **Steve Hays will send the final water quality in macrophyte beds report to the RRFF by 15 November 2013.**

## V. Pacific Lamprey

### Rocky Reach Project Effects (No Net Impact)

Tracy Hillman e-mailed a PowerPoint presentation prepared by Bob Rose on Pacific Lamprey Assessments and Recovery Actions in the Mid-Columbia to the RRFF (see Attachment 1). Patrick Verhey reported that he and Bob had discussed the PowerPoint and agreed that Patrick will give the presentation to the Forum. He added that the work outlined in the presentation represents an effort toward a regional framework to address lamprey, and that it is a step forward in defining the various contributions and roles of the PUDs toward these efforts. Patrick walked through the presentation, noting that it is a draft and is for discussion purposes only. Highlights from the presentation included:

- Primary objectives for the next seven years are to gather data on adults and juveniles in the

mainstem and tributaries, and to carry out supplementation.

- Focal objectives are outlined for years 2014 – 2016 and 2017 – 2020.
- Objectives are detailed throughout the PowerPoint, and many objectives include a placeholder for financial support from the PUDs.
- The conclusions refer to the regional nature of the work, the consistency of stated objectives with Mid-Columbia license agreements, and the connection between objectives and the intent of No Net Impact.

Patrick noted that Bob Rose is analyzing agreements, plans, and 401s for the various PUDs to move the discussion forward on funding. Steve Lewis noted that each objective will not necessarily apply to each PUD. Steve Lewis also stated that he had met with USFWS policy representatives to get their thoughts, and that they supported the objectives. Patrick added that there was also support from WDFW policy representatives. Steve Lewis and Patrick both noted that this is an effort to fill in information gaps on lamprey. Steve Lewis pointed out that each management plan has some kind of adaptive management tool associated with them. Tracy Hillman asked if Bob Rose is still working on the main document and Steve Lewis said yes, and that he understood that the main document is about 80 – 90% complete. Tracy stated that this topic will be included on next month's agenda. Discussion took place around the acronym JFP (Joint Fisheries Parties) and its meaning within the Forum. The group agreed that it was probably not appropriate for the RRFF. Co-Fisheries Managers or co-managers is a better phrase for the fish management agencies within the RRFF (i.e., USFWS, WDFW, Yakama Nation, and Colville Tribes). Steve Hemstrom asked if 2020 was the goal for completion on lamprey efforts. Steve Lewis replied that it is the goal, but that there may be spillover.

**Action Item:**

- **At the request of Jason McLellan, Tracy Hillman will add Kirk Truscott, Colville Tribes, to the RRFF distribution list.**

### Future Planning, Potential Juvenile Lamprey Measures, Timeframe and Budgeting

Nothing to report.

### Adult HD PIT Monitoring

Steve Hemstrom presented data on adult lamprey detections at the Rocky Reach exit antenna, showing that 11 adult lamprey passed as of 30 October. He added that of these 11 fish, six were initially detected in 2012 at Rocky Reach and five were initially detected in 2013 at Rocky Reach. Steve Hemstrom noted that those six fish did not spend the winter in the fish ladder. Discussion took place regarding over-wintering and the timetable for lamprey spawning. Steve Hemstrom stated that 28 fish have been detected at Rock Island and 20 at Rocky Reach Dam (these fish were all tagged at Bonneville Dam). He added that nine were detected at Rocky Reach but not Rock Island. Steve Hemstrom also shared data

from DART for adult lamprey passage observed as of 19 October, which shows 2,150 fish have passed Rock Island, 1,623 have passed Rocky Reach (75.5% of RI passage), and 21 have passed Wells (1.29% of RR passage). Tracy Hillman noted that the numbers counted at Wells Dam probably includes fish transported from Bonneville and Priest Rapids dams for the Wells passage study. Steve Hemstrom noted that he has not yet calculated passage time. Discussion took place regarding the possibility of consolidating data from the various PUDs on fish passage. Tracy indicated that each PUD will provide their own data, and that the Army Corp of Engineers or University of Idaho might be able to consolidate it.

Tracy brought up Steve Hemstrom's action item from October in which Steve was going to review past notes to look for references to the selection of HD PIT tags as the standard tool for lamprey monitoring. Steve Hemstrom reported that he found no notes that indicated a vote on the subject, but that the RRFF approved the use and location of HD detectors in Rocky Reach Dam, indicating that the Forum agreed to use HD tags (see March and April 2011 meeting notes). Patrick Verhey, Tracy Hillman, and Steve Lewis noted that the Forum had agreed to use HD PIT tags to monitor passage improvements made at Rocky Reach.

**Action Items:**

- **Steve Hemstrom will send out the migration table that he discussed during the meeting.**
- **Steve Hemstrom will look into the possibility of entering HD tag data into PTAGIS and will ask the Army Corp of Engineers for data on their detections.**

## VI. Resident Fish

### Resident Fish Report – WDFW Revision

Tracy Hillman stated that the resident fish report was sent to the Forum last week. Chad Jackson noted that there are not a lot of opportunities to enhance recreational fishing in the Rocky Reach reservoir. He added that it is not a system that is heavily populated with non-native predators. He stated that there are no major changes from the earlier version. Pat Irle requested clarification on Table 9 water quality results, and what the term "mean standard wq param" means. She also asked about the meaning of negative turbidity values. Chad asked Pat to e-mail her questions to him and he would get back to her on this. Tracy added that any questions on the report can be sent to Chad. Steve Hemstrom thanked Chad for the extra effort WDFW has put into this report.

### Bull Trout and Tumwater Dam

Steve Lewis stated that he is trying to coordinate with NMFS on its biological opinion on the HGMPs and consultation for bull trout. He added that the USFWS is planning to draft a letter to clarify their position on consultations for the HGMPs and bull trout.

### Twenty-five Mile Creek Update

Tracy Hillman noted that Chelan PUD extended the Twenty-Five Mile Creek contract with Cascade Columbia Fisheries Enhancement Group (project sponsor) until 1 November. He also reported that Bryan Nordlund had replied and approved most of the contractor's responses to the RRFF's concerns. He added that Bryan's remaining concern was being addressed by the contractor, and that a report from the project sponsor should be available soon. Tracy noted that the RRFF may receive a proposal for funding to do the work in the future. Patrick Verhey shared that he had recently been in the Twenty-Five Mile Creek watershed and that he saw the engineering challenges there first hand. Discussion took place regarding a possible site visit if there is a future funding request for this project.

**Action Item:**

- **Tracy Hillman will send the final design report on Twenty-Five Mile Creek to the RRFF when it is received.**

### Milfoil Treatment Proposal

Steve Lewis reported that he had received an e-mail stating that Chelan County plans to move forward with the application of triclopyr BEE (butoxyethyl ester, which is an aquatic herbicide), which is a less lethal version of the originally proposed herbicide. Steve Hemstrom stated that he had not received the e-mail, but that triclopyr BEE would be preferable to the herbicide that had been initially proposed. Steve Lewis added that he will forward the e-mail to Steve Hemstrom. Pat Irle also requested to see a copy of the email.

## VII. White Sturgeon

### Juvenile Rearing

Lance Keller reported that he followed up with Blue Leaf Environmental on his October action item to seek their recommendation on stocking levels for 2014. Lance was told that at this time there are no monitoring data that would indicate what number should be stocked in 2014. He added that during a recent conference call with the co-managers, a full stocking plan of 6,500 was proposed. Chelan PUD had no objection to this number for release in 2014. Chad Jackson stated that he thinks that this number is fine for the time being. Lance added that this is the last year for stocking at this level, and that after this year, stocking levels will have to be determined. Lance added that this is the most diverse group so far, and that all families will be equally represented if we stock the full 6,500 fish. Jason McLellan cautioned that although this is the most diverse group of crosses used to date, it still does not meet the goal of the plan. Steve Lewis also questioned the stocking of 6,500 juveniles given the number of crosses. Discussion took place regarding the best number of fish to stock, considering the genetic implications. Tracy Hillman reported that, based on genetic concerns, Grant PUD proposed to release

4,332 juvenile sturgeon into their project area in 2014. These fish are from the same broodstock that produced Chelan's fish. Jason said that the Grant proposal was based on releasing 361 juveniles per cross (the maximum release of 6,500 juveniles is a result of 18 crosses). Because there were 12 crosses, it was proposed that 4,332 sturgeon be released (12 crosses x 361 juveniles per cross = 4,332 juveniles). The Yakama Nation and Umatilla Tribes opposed this proposal and recommended that all 6,500 juveniles be released in 2014. Tracy summarized the discussion and added that because the fish released into both the Priest Rapids/Wanapum and Rocky Reach project areas come from the same broodstock, it may be important to release the same number of fish in both areas based on the best available science. Pat Irle recommended that the best possible science be used (considering the long-term genetic implications). **The RRFF decided to table this discussion until the December meeting.** Donella Miller, Yakama Nation, joined the call and agreed to table the discussion until the next meeting. Tracy asked Lance about the amount of time it takes to receive tags after they are ordered. Lance said that the turnaround time for a tag order would be short and shouldn't affect the timetable significantly. Lance also noted that the settlement agreement states that 1% of the release group will be tagged with acoustic tags.

**Action Item:**

- **The RRFF will continue discussion in December on the number of juvenile white sturgeon to release in 2014.**

### Juvenile Monitoring

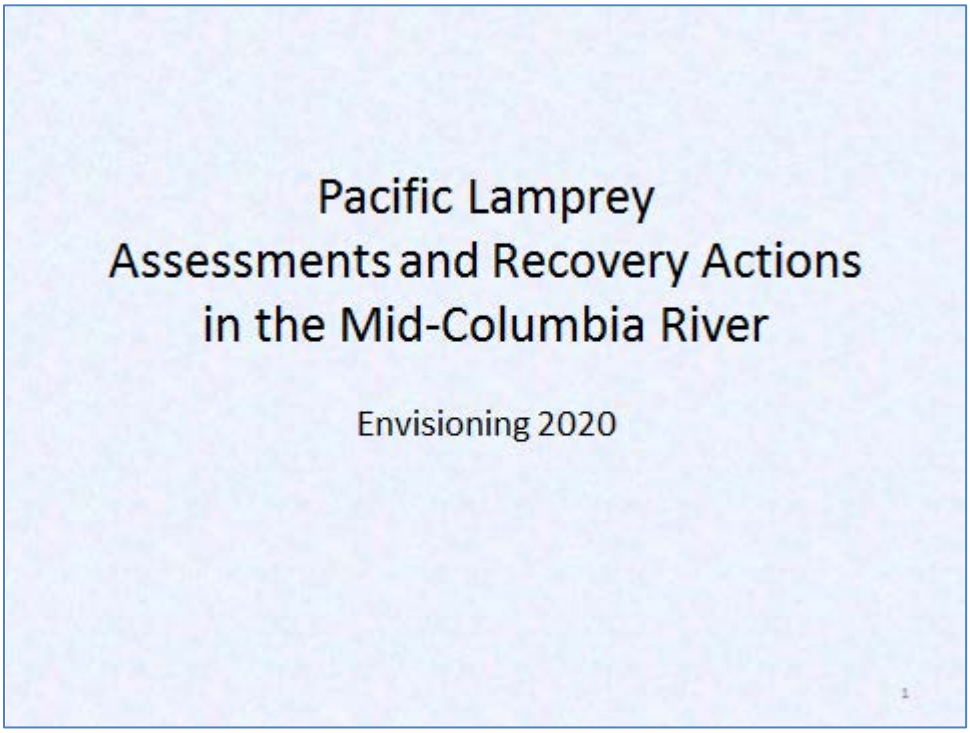
Lance Keller reported that the first year of monitoring in the Rocky Reach pool is complete and that there were 575 recaptures -- 424 fish from the 2013 release, six fish from 2012, and 114 from 2011. They found that using squid instead of crickets worked best for capturing juvenile sturgeon. He added that one fish from the 2011 release was over 600 mm. He noted that 31 individuals had shed their PIT tag. These fish were injected with new PIT tags. Lance added that they will look at shed rates in the hatchery. Jason McLellan stated that in the upper Columbia, fish were tagged 2 to 3 months before release and that their tag retention rate was 95%. Discussion took place regarding the methods used to ensure high tag retention. Lance added that Blue Leaf Environmental should have their draft monitoring report to Chelan PUD by the first of the year. He stated that many fish from Entiat and Daroga were recaptured in the Wells tailrace.

## VIII. Next Steps

Tracy Hillman stated that the next RRFF meeting falls in the week of the Army Corps of Engineers' Anadromous Fish Evaluation Program (AFEP) meeting. Because several members and participants of the RRFF will be attending the AFEP meeting, the group agreed to move the next meeting to Tuesday, 10 December 2013 from 1:00 to 4:00 p.m. in the Chelan PUD Second Floor Conference Room.

# Attachment 1:

## Presentation by Patrick Verhey Regarding Pacific Lamprey Assessments and Recovery Actions in the Mid-Columbia River.



# Premises

- Forward looking planning is central towards certainty and steady progress.
- A coordinated approach in understanding critical uncertainties is more cost efficient and biologically effective than a patch-work approach.
- We have a responsibility to optimize, if not maximize, the amount of information we can obtain from each tagged fish.
- The Settlement Agreements obligate the **Parties** to move forward with reasonable progress towards reasonable actions.
- PUD contributions to NNI and / or Regional Participation is anticipated in the Settlement Agreements and is part of the Settlement Agreements intent to Protect, Mitigate and Enhance.
- Future technical discussions are intended to refine Objectives, Tasks, Costs and responsibilities – so information included in this presentation is DRAFT and for discussion purposes only.

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# Premises

- Hydro-electric projects do have a negative, albeit undefined, effect on local populations of lamprey abundance and spatial distribution.
  - Passage is less than 100%,
  - Substantial numbers of adults not accounted for in reservoirs,
  - Turbine boil environment likely enhancement for predation.
- Translocation is the basic means for acquiring adults for needed evaluations concerning passage and losses in reservoirs.
- Translocation is a short-term and cost effective way to protect, mitigate and enhance (re-introduce) local populations.
- Translocation is a regional effort, requiring regional participation and also requires appropriate level of monitoring.
- Settlement Agreements understood all Project Effects not known – and through Adaptive Management – Settlements obligate investigation where there is probable cause.

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# Primary Objectives – 7 Years

**Mainstem Adults**

1. Mainstem Fishway Entrance, Passage and Exit Efficiency
2. Proportion of Adults Ascending Tributaries
3. Fate of Adults in Reservoirs

**Mainstem Juveniles**

4. Predation on Juveniles in Tailrace
5. Juvenile Occupancy and Use of Reservoir Habitat

**Tributary**

6. Establish Regional Baseline / Status and Trend Information
7. Adult Passage in Tributary Streams
8. Juvenile Entrainment: Dryden Ditch / Other Irrigation Structures

**Supplementation**

9. Adult Translocation Research (Wenatchee & Methow)
10. Artificial Propagation Research (YN- CTUIR facilities & Wenatchee)

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# Focal Objectives 2014 - 2016

**Mainstem Adults**

1. Mainstem Fishway Entrance, Passage and Exit Efficiency
2. Proportion of Adults Ascending Tributaries
3. Fate of Adults in Reservoirs

**Mainstem Juveniles**

4. Predation on Juveniles in Tailrace
5. Juvenile Occupancy and Use of Reservoir Habitat

**Tributary**

6. Regional Establishment Baseline / Status and Trend Information
7. Adult Passage in Tributary Streams
8. Juvenile Entrainment: Dryden Ditch / Other Irrigation Structures

**Supplementation**

9. Adult Translocation Research
10. Artificial Propagation Research

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# Focal Objectives 2017 - 2020

**Mainstem Adults**

1. Mainstem Fishway Entrance, Passage and Exit Efficiency
2. Proportion of Adults Ascending Tributaries
3. Fate of Adults in Reservoirs

**Mainstem Juveniles**

4. Predation on Juveniles in Tailrace
5. Juvenile Occupancy and Use of Reservoir Habitat

**Tributary**

6. Regional Establishment Baseline / Status and Trend Information
7. Adult Passage in Tributary Streams
8. Juvenile Entrainment: Dryden Ditch / Other Irrigation Structures

**Supplementation**

9. Adult Translocation Research
10. Artificial Propagation Research

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## What's the Deal?

**Translocation: Objective 9**
**Supports Objective 1**

**Dams delay, discourage and/or deter lamprey passage. Mitigation is warranted.**

- Translocation of adults.
  - Intended to be short term for now (7 years) but may be a longer term solution as a surrogate for passage.
  - Cost effective. Cost sharing with Yakama Nation.
  - YN will provide expertise, equipment, administrative support in obtaining, maintaining and distributing eels.

**$XXX per year for each PUD to support YN collection from lower river (2014 – 2017).**

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**What's the Deal?**

**Translocation Monitoring – Objective 9**

**Supports Objectives 2, 3 and 7**

**Cannot call translocation "mitigation" unless we know it works. Need appropriate level of monitoring:**

- Requires radio-telemetry to understand potential passage impediments, migration behavior and spawning locations.
- Focus on Wenatchee and Methow, 50 tags per basin for three years.
- Approximately 16 – 20 receivers and 6 air surveys over three years.

**$XX each year for three years from each PUD to support USFWS in carrying out tributary telemetry studies.**

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**What's the Deal?**

**Mainstem Passage Studies Objective 1**

**Supports Objectives 2, 3, and 9**

**Existing information for entrance efficiency, in-ladder passage efficiency and (generally) fall back is not yet sufficient. "Losses" between dams is disturbing. More samples will help our understanding, sooner.**

- Use translocated fish with various transmitters (HDPIT plus RT and/or FDPIT) to enhance data set at the dams – three years.
- Primary focus:
  - Entrance efficiency,
  - "Fate" of adults in the reservoir (% that enter tributaries),
  - Enhance in-ladder passage dataset.

**PUDs fully fund passage studies – working in a coordinated fashion.**

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## What's the Deal?

### Proportion of Adults Ascending Tributaries: Objective 2
### Supports Objectives 7 and 9

**A high proportion of migrating adults are not accounted for from one dam to the next. Albeit difficult, we have to begin understanding why.**

- PRD – RIS = 75% not accounted for
- RIS – RRH = 30% not accounted for
- RRH – WEL = 99.9% not accounted for
- Does not get to the "Fate" question, but an important start.
- Tagged eels from passage and translocated assessments used.
- Receivers established near river mouths to verify ascent.

**PUDs support USFWS with existing receivers and financially to operate telemetry equipment, analysis and reporting. Cost rolled in with Objective 9.**

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## What's the Deal?

### Adult Passage in Tributary Streams: Objective 7
### Supports Objective 9 and 6 (Baseline)

**Passage is an issue with mainstem dams. Evaluating potential passage issues in tributaries is a legitimate offsite – in kind NNI mitigation measure.**

- A "seamless" Objective consistent with Translocation. Simply a matter of receiver placement.
- Focus on Dryden, Tumwater, Foghorn, Chewuch.
- 2-Year Assessment period.

**PUDs support USFWS with existing receivers and financially to operate telemetry equipment, analysis and reporting. Cost rolled in with Objective 9.**

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## What's the Deal?

### Artificial Propagation: Objective 10

### Supports Objective 4, 5, 6, 8 Juvenile Passage and Recovery

**Understanding potential juvenile impacts is a Settlement requirement and will require eels. CCPUD Settlement has language (Section 4.2.3) directing specified funds to "provide sufficient numbers of juvenile lamprey for these evaluations".**

- The RRFF has spent $80,000 for the development of "Pacific Lamprey Artificial Propagation and Rearing Investigations: Rocky Reach Pacific Lamprey Management Plan, June, 2011".
- The RRFF also funded ($?) for a workshop and resulting paper from Wade and Beamish "Pacific Lamprey Breeding and Rearing Methodologies – Recommendations for Chelan County PUD."
- Why would we do this if we weren't thinking about propagation??

CCPUD supports, along with RRFF, making approximately $XX available to the USFWS (Abernathy Lab) YN and CTUIR for advancements in propagation over the next 3-Years, upon RRFF approval of study plans consistent with above document findings.

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## What's the Deal?

### Regional Baseline – Status and Trend: Objective 6

### Supports Objective 9 and Recovery

**Both NNI and Regional Coordination Settlement Agreement language is consistent in establishing baseline information for species.**

- Baseline = (1) adult counts at mainstem count windows, (2) juvenile relative abundance in Index Sites and (3) distribution of spawning and rearing locations.
- YN already identifying index sites and proceeding with research planning (in review).
- Baseline coincides with translocation / propagation success objectives and will be cost-shared with ongoing YN Accords and USFWS research funding.
- Electro-shocking surveys and genetic analysis are main tools.

Upon approval of RME design from Mid-C Forums, Support YN – USFWS field investigations / monitoring for 7 years. $XX Total.

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2017 - 2020
Primary Objectives
Objective 3: Fate of Adults in Reservoirs
Objective 4: Predation of Juveniles in Tailrace
Objective 5: Juvenile Occupancy and Use of Reservoir Habitats.
Objective 8: Juvenile Entrainment: Dryden / Other Irrigation Structures
Ongoing Objectives
Objective 6: Baseline – Status and Trend
Objective 9: Translocation
Objective 10: Artificial Propagation
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2017 – 2020
Primary Objectives
Objective 3: Fate of Adults in Reservoirs
– Do not know how to proceed at this time.
– Sturgeon predation? Spawning / success? Entry into tributaries? How do we evaluate? What would be a management action?
Objective 4: Predation of Juveniles in Tailrace
– "Hypothesis" about effect is speculation but with probable cause.
– Reduction of predators in turbine boils is likely best / only solution.
– Need juveniles and tags before methods tested and employed.
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## 2017 – 2020
Primary Objectives

**Objective 5: Juvenile Occupancy and Use of Reservoir Habitats.**

- Initial yet very inconclusive work has been implemented.
- Focus is understanding if/how juveniles use reservoirs successfully, and if reservoir elevation changes are related to mortality.
- Recommend letting USACE take the lead in figuring out basic science – methods.

**Objective 8: Juvenile Entrainment: Dryden / Other Irrigation Structures**

- Entrainment exists – but solution is not available.
- Recommend waiting for USGS / YN-CTUIR-BOR work to advance, then recommend solution options.

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## Conclusion

The Yakama Nation, Umatilla Tribes, Colville Tribes, WDFW and USFWS believes the framework provided represents a reasonable and feasible plan that moves lamprey mitigation and recovery forward with regional cost-sharing and in a cost effective manner.

These measures provide all Parties of the Forums a higher level of direction in process and certainty in costs and outcomes.

The elements in this framework are consistent with each of the Mid-C License Agreements and during the next 7-years, meet the intent of No Net Impact and Regional Coordination / Cooperation.

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