

**CRASC Technical Committee
Meeting Minutes
November 14, 2013**

Agenda Item

1) Call to order, approval of Minutes

Chair Caleb Slater started the meeting at 10:15 a.m., all agency members were present, with Bill Ardren (USFWS) calling in, except Dan McKinley (USFS). A motion to approve the Minutes of the June 18, 2013 was made, all were in favor.

2) Coordinator's Report

Mr. Sprankle referred to his handout and reviewed upstream fish passage count totals to date for the river basin and then proceeded to review counts to date from individual passage facilities. There were slight increases in numbers among most of the species from the mid June report. A total of 397,958 American shad were counted at all facilities, with Holyoke Fish Lift reporting 392,967. Several additional adult salmon were captured or observed, in late June, early July and in the fall, bringing the total known adult salmon returns to 92 fish. The handout also provided several figures showing count data since 1967 for select species, primarily at HFL as well as shad counted passing Turners Falls Dam (Gatehouse ladder) and passing Vernon Dam ladder. Refer to the handout for more details. Atlantic salmon stocking data were summarized in a table by state, sub basin, and life stage (e.g., total unfed fry stocked 1.448M; total fed fry 408K; 99K age-2 smolts). Lastly, the Coordinator described two reports that were released from his office; Water temperature monitoring and diadromous fishes temperature concerns in the Connecticut River upstream and downstream of the Vernon Dam, Vernon, Vermont Fall 2009 through Fall 2012 and Juvenile American shad assessment in the lower Vernon Dam Pool Fall of 2012. The reports describe these field study designs, data, analyses, results, discussion and management recommendations with numerous references to supporting peer reviewed literature and unaddressed concerns with Vermont Yankee's thermal discharge.

3) Fish Passage Subcommittee

Mr. John Warner provided a handout and began with update on downstream fish passage measures at Holyoke Dam. Holyoke Gas and Electric (HGE), developed a third plan that was reviewed by the agencies in the summer. USFWS Engineer Brett Towler developed a modification of the designed plan to address some defined issues. The suggested changes improved many of the metrics of concern (velocities, opening sizes, orientation). The agencies, other interveners and HGE agreed to the changes and are working on post construction comments related to studies/evaluations. New CFD analyses are to be completed. Construction is possible in 2014 or may occur in 2015, unclear. Dr. Brett Towler then led a projected presentation of his design alterations, providing details on design features and other related key engineering aspects.

There were interjected comments and questions on Holyoke. Dr. Castro Santos asked if there were any examples of where such a design (ski lift) has been developed, applied and or evaluated? There are no known examples. Dr. Castro Santos asked about need for the split in the spill jet down the dam face, is it required? It is a result of the dams design and spacing of fixed structures like bascule gate and adjacent “dam #5” rubber bladder. Mr. Gephard asked how the jets of water off the dam will affect flow for fish moving upstream to the spillway ladder. Slides were used to show the “design” view that an upstream passage zone will be maintained along the dam apron. Mr. Warner noted there are concerns and that evaluations will be used to examine velocities, flows, jet locations and depths (pools etc.). Mr. Gephard asked about trash rack spacing and debris removal for deep water intakes. It was noted that the fish bypass intakes are flush with the racks but will not be 2 inch bar spacing but 3ft width and subject to available rake cleaning. A discussion on 2 inch spacing occurred it was noted that 1 inch spacing was not possible, 2 inch was a compromise. If overlays are needed with identified issues those can be examined to address specific issues.

Mr. Warner updated the group on the five main stem project FERC relicensing process that involves nearly every CRASC Technical agency member and many other related staff and partners (TU, TNC, CRWC). This is the second year of a five year process. TransCanada and FirstLight Power both have submitted Proposed Study Plans that largely adopt the Study Requests developed cooperatively by the many agencies and NGOs that worked cooperatively on their development. Vermont Yankee’s decision to end operation in Dec 2014 has created an issue with several planned studies (2014 start) whose results may be affected by the presence of a thermal discharge which will be eliminated after 2014, such as American shad movement and fish passage studies for both adults and juveniles. FERC has scheduled meeting for end of November to discuss these concerns. It may be necessary to shift the FERC process time lines as a result of having sufficient data for studies such as shad passage, we will need to see how FERC responds. The planned IFIM study by FirstLight has taken substantial time as all parties work to achieve consensus on technical approaches and details.

Lastly, Mr. Warner noted the Manhan River (Easthampton, MA) fish ladder was nearly complete and should be in operation for the spring.

4) Salmon Studies Subcommittee

Mr. Steve Gephard provided a handout, which summarized salmon stocked out by state and some facts on adult returns. It was noted that there were challenges with the spring season and pick-up and transfer of adults to Cronin for the single USFWS staff assigned there with increased assistance by CTDEEP later applied. He noted mortalities may have resulted from fish being held for longer periods at HFL. Mr. Gephard reviewed scale reading results for adults, that show age and origins that were prepared by the Coordinator and read in collaboration with CTDEEP. The report summarized adult spawning at Richard Cronin that CTDEEP staff contributed staff for on the two spawning dates. It is estimated that approximately 400,000 green eggs were taken and fertilized from the sea runs. In addition, Kensington State Fish Hatchery (CTDEEP) took approximately 600,000 eggs. No other agencies spawned salmon.

Discussion items were presented by Steve that include what options exist for adult salmon in 2014: 1) with RCNSS and some possible cap on total number held and not reached (as in 2013), 2) RCNSS adult salmon cap exceeded, 3) no RCNSS option, adults released, 4) options for data gathering of fish – trapping, handling, tagging, releasing, 5) trap and upstream release of adults (Westfield River and West River). It is unclear what will occur at this time with the decision on RCNSS remaining open for adult salmon.

There were questions on sea-run fry stocking. In past years the Sawmill River received these fish which were sampled for age-1 parr/milt at spawning. Dr. Slater stated no sea-run fry were stocked in the Sawmill in 2013. Mr. Gephard noted he would stock Pine Brook in CT in 2014 for their program. Dr. Slater stated his agency will not be stocking any tributaries with salmon in 2014. Mr. Carpenter asked what is CTDEEP target fry stocking number? Mr. Gephard noted 200-250K but more will be stocked this spring as they are available – possibly will be 500K.

There was discussion on tagging of adults, first with Floy, t-tags for a visible external mark for anglers. Dr. Slater noted potential Massachusetts issue as such tagged salmon in the Merrimack are allowed for harvest. Unclear what the extent of this potential issue and benefits, etc.. it was agreed tagging could be helpful for identification and tracking purposes by the committee. He noted that any salmon for release on the Westfield River would require trucking upstream of un-laddered dams. It was agreed there is more to discuss on this matter for any tributary with trap facility. It will also be necessary to discuss the types of data that can be obtained from these fish, extent of handling etc. Dr. Slater noted that with MADFW salmon management decisions Dan Marchant should be removed as Chair of Fish Culture subcommittee.

Dr. Castro Santos noted that returning adult salmon could provide important data and study opportunities at the Conte Lab. He asked whether the CRASC would consider a request for captured fish that could be released following passage/swimming performance tests after a few days. The members were supportive of this concept. Provided adults can not be retained at Cronin, or number will exceed the cap, that would be an acceptable request.

5) Shad and River Herring Subcommittee Report

Mr. Sprankle referred the group to a written report, provided. He reviewed the two year whole river shad telemetry study analyses progress. Dr. Castro-Santos has performed more analyses and data filtering/cleaning. He has presented results from this work in the Spring and Fall of 2013 at CRASC Research Forum and American Fisheries Society Meeting respectively. He has also provided these data and analyses (and coded procedures) to the consultants for both FirstLight Power and TransCanada to aid in planned studies. Mr. Sprankle reviewed his involvement in leading the development of a Connecticut River American Shad Habitat Plan that was submitted to the Atlantic States Marine Fisheries Commission in September. The Plan was developed in cooperation of all state agency members of CRASC Tech, and will be discussed by the ASMFC Shad Technical Committee in early December along with State Plans and other River Plans. Mr. Sprankle provided an update on select final river herring population assessment data from the USFWS work. A total of 501 paired otolith and scale samples were sub-sampled from blueback herring, 107 alewife and 315 American shad sampled in the spring. It was noted these data were identified as a priority need in the ASMFC River Herring Benchmark

Assessment. He noted that surveys in the Oxbow (Easthampton, MA) of the CT River, in late summer produced large numbers of juvenile blueback herring, in the area receiving transplanted herring from spring work.

Mr. Gahagan gave a verbal update of the River Herring Team that occurred in November. He reviewed meeting highlights which included state and river reports, recent research, and a review of recent Middle Atlantic Fishery Management Council decision effecting herring. Marine managers provided their perspective on next steps given no ESA listing and limited action on suggested monitoring. A brief review of developed research or information priorities and status was started but not finished. The fact that beginning in 2014 there is a bycatch cap in effect for the Atlantic (sea) herring fishery and for the Atlantic mackerel fishery was stated. Mr. Gahagan described the December river herring aging workshop arranged by ASMFC, and hosted by CTDEEP. The workshop will address need to evaluate age structure reading accuracy and consistency among East Coast managers.

Ms. Jacque Benway provided a handout with a figure showing the juvenile shad and herring seine survey conducted by CTDEEP for the available time series. The geometric mean value for shad was 3.41, which was shown on the figure to be a relatively low value. Ms. Benway theorized that potentially early spawned larvae were negatively impacted by high late spring river discharge events. The juvenile index for blueback herring was a relatively high value if considering more recent years (1995 to current) as a value of 6.44. However, when placed in the context of the full time series, this value was on a lower range.

6) American eel

Mr. Tim Wildman gave a verbal report of the Eel Committee which has yet to meet. He stated his intention to arrange a first meeting this winter. Mr. Wildman proceeded to review eel passage monitoring and passage within the State of Connecticut. He asked Steve Leach to provide a review of eel passage information for Holyoke Dam. Mr. Leach stated eel passage began earlier than past year, in May, and total passage was ~ 13,000, which was well down from the ~40,000 documented in 2012 (a record year). Late June appeared to have the peak movement in 2013. Mr. Wildman went on to review development with ASMFC Eel Management Plans including Addendum #3. In summary, relatively minor conservation measures were implemented (no harvest of silver eels (DE River 1 yr delay), raise min size), with measures on glass eel fisheries postponed.

7) Habitat

Mr. Steve Gephard provided a verbal report for this subcommittee and noted that it has not met. He hopes to have this committee meeting this winter. He then proceeded to describe habitat projects that are in progress or planned in-basin in the state of Connecticut. Examples of this included Bristol Brass Dam removal set for 2014 (Farmington River trib), the planned removal of the Norton Mill Pond Dam, planned removal of Ed Bills Pond Dam, and future possible projects in Suffield (Carp Family Dam) and the Springborn Dam on the Scantic River. He asked each state to provide updates. Mr. Sprankle reported the Manhan River fish ladder was soon to be completed, the Amethyst Brook dam removal was final, and asked Ms. Andrea Donlon to

speak about CRWC work on repairing Chickley River and the dam removal and fish passage topic for the two lowest dams on the Green River. Mr. Sprankle stated the Fall River dam removal project is on hold for historic reasons at this time. Mr. Carpenter stated his agency has been heavily involved in habitat restoration and research in the Nash Stream (tributary system) for many years now. Lael Will then noted that the State of Vermont is working to restore damage habitat as the result of Irene Storm repair with VT Agency of Transportation. In the West River two brooks are the subject of restoration.

8) Richard Cronin National Salmon Station status

Mr. Sprankle reviewed the fact that RCNSS is not in a position to independently continue its operation with adult salmon in 2014 without additional support (financial and other). He reviewed steps taken to identify and reach out to potential partners for this facility, USGS Conte, UMASS Amherst, CTDEEP, and BKRiverfish (sturgeon researcher). These parties have visited the site and will be attending a meeting with USFWS in early Dec to discuss interests, options, resources, limitations, concerns, among others.

9) Vermont Yankee Update

Mr. Sprankle gave a verbal update on the status of Vermont Yankee. He noted that on August 29th the owner (Entergy) announced plans to close the plant in December of 2014. As of this date, VY plans to operate under existing permits and agreements status quo. Mr. Sprankle stated there are private meetings between Entergy and State of Vermont lawyers on decommissioning steps and related details. The agencies staff (Dr. Slater, Mr. Cox, Ms. Grader, Mr. Sprankle, etc.) who are members of the VY Advisory Committee for the State of Vermont were tasked with providing a recommendation on the heated discharge permit. That response was provided for the State's use.

10) CT River Watershed Council's effort on coordinated standards for biological and physical water quality criteria

M. Andrea Donlon provided a review of CRWC effort to help coordinate state agencies in the basin develop a consistent set of criteria or standards that could be consistently applied to the CT River basin. CRWC is looking to continue to this effort as there has been support among water quality agencies and the CRASC had also given verbal support to this at an earlier meeting with an initial presentation on the concept by Dr. Andy Fisk. M. Donlon noted the CRWC had applied for an Landscape Conservation Cooperative Grant (USFWS) to help fund this effort but was not selected. They will try again with some changes on areas of interest by LCC.

11) Other Business

Ms. Lael Will stated her concern that operation of fishways at Bellows Falls and Wilder dam are legally only triggered by adult Atlantic salmon. In 2013, the agencies approached TransCanada on opening Bellow Falls ladder after 500 lamprey passed Vernon Dam. They agreed to do so. Ms. Lael noted that immediately upon opening Bellows Falls lamprey passed to target number and or timing should be reconsidered to address concerns with delay. She was unsure on how to

proceed regarding Wilder based upon existing data for lamprey passage. It was noted that FERC studies include fishway operation for all species but will these studies occur in 2014 or in 2015 – VY closure and evaluation impact concerns. It was stated that Vermont intends to operate fishways for all species in the future. Mr. John Warner stated the state's can independent of CRASC agreement can exercise their rights for fish passage and USFWS would support them. It was agreed to revisit the 500 lamprey target at Vernon. Mr. Gabe Gries stated after first lamprey passed Vernon we could ask to have BF opened. Trigger for Wilder will need to be discussed and some past data examined, it is less clear. It was determined we must approach TC on this matter. Mr. Steve Gephard **made a motion “we support sea lamprey passage at upper dams, Bellows Falls and Wilder among others.” It was seconded by Mr. Carpenter and others vote all in favor.**

Ms. Melissa Grader stated that the Sea Lamprey Committee can take this matter up and provide a recommendation.

There was discussion on RCNSS status and if open likely to keep all salmon, thus no trigger to open Bellows and Wilder ladders. If RCNSS not to be used this question is moot as salmon will be passing upriver.

Mr. Carpenter asked how soon do we need to ask TransCanada? Mr. Warner noted we will see company staff soon and can broach topic.

Question on the operation of the Army COE Townshend Trap and Transfer project – we should be proactive to ensure ACOR knows they must operate if salmon are passed upriver. Mr. Warner said CRASC can handle that contact but so can the State of Vermont. The congressional record on this matter is clear – funding for that facility was provide for passing Atlantic salmon – they are directed by congressional act. We should advise them soon.

The State of Rhode Island provided a written request for up to 2,000 American shad from Holyoke Fish Lift for CRASC. Mr. Gahagan noted a potential concern with introducing genetic material from CT River into any remnant populations in their restoration waters. No one knew of any data on that topic. Stockings of CT River shad has been ongoing for over a decade, so this is not a new measure. Dr. Slater stated he would not want to tell RIDFW how to restore their populations. Mr. Gephard noted that coastal CT River restoration can not wait for natural recolonization and any existing shad numbers are too low, so transfers are preferred alternative. It was decided by vote to approve the request, seconded by Slater, all in favor. Mr. Sprankle will notify RIDFW and the 1:1 up river for each out-of-basin transfer will be in effect.

Meeting ended at 1:40.

ATTENDANCE

CRASC TECHNICAL COMMITTEE MEETING – November 14, 2013

<u>Name</u>	<u>Affiliation</u>
Brett Towler	USFWS
Melissa Grader	USFWS
Steve Leach	Normandeau
Brian Hanson	Normandeau
Bob Stira	FirstLite
Katie Kennedy	TNC
Mike Bailey	USFWS
Karl Meyer	Journalist
Andrea Donlon	CT River Watershed Council
Pete Aarrested	CT DEEP Inland Fisheries
John Warner	USFWS/NEFO
Mike Sears	HDR
Ted Castro- Santos	USGS
Tim Wildman	CT DEEP Inland Fisheries
Jacqueline Benway	CT Marine Fish DIV
Ben Gahagan	MADMF
Bill Hyatt	CTDEEP
Steve Gephard	CTDEEP Inland Fisheries
Ken Sprankle	USFWS/CTRC
Caleb Slater	MADFW
Matt Carpenter	NHFG
Bill Ardren (Call in)	USFWS
Lael Will	VTFW