

**CRASC Technical Committee
Meeting Minutes
June 26, 2012**

Agenda Item

1) Call to order, approval of Minutes

Chair Caleb Slater started the meeting at 10:10 a.m., all agency members were present except MA Division of Marine Fisheries, with Mr. Bill McDavitt representing NMFS. A motion to approve the Minutes of the January 24, 2012 was made and seconded, 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. It was noted that over 500,000 American shad had been counted as passing upstream of fishways through this date, with Holyoke Fish Lift (HFL) posting its fourth highest all-time passage count. Dr. Slater commented that the Westfield River, West Springfield Dam/ladder passed a record number of shad, which follows last year's previous record passage. Adult salmon returns were noted as poor, with 50 fish counted/trapped to date. Fish passage counts to date were compared to final counts from 2011.

Mr. Sprankle referred to two figures comparing the spring water temperature profiles from 2011 to 2012. It was noted that 2012 was exceptionally warm early with extremely low flows early in the season, with fish movement occurring weeks ahead of a typical year. He referred to a figure showing the relationship of shad passage at HFL, water temperature, and river discharge. High flow events were related to decreased or no passage along with the increasing water temps that showed upstream movement largely over by early June (water temps slightly over 20C but also dropping for a period before climbing again).

The shad passage counts at Vernon Dam ladder were noted, which are over 10,000, up from 46 in 2011. This change was attributed to telemetry work supported by TransCanada, conducted by USGS Conte, documentation of a problem, a CRASC response to reinvigorate fish way pre-season and inseason inspections, USFWS Engineers and Conte researcher identification of issues at Vernon ladder, and prompt fixes and adjustments by TransCanada. The percentage of shad passing out of Gatehouse Ladder and subsequently passing at Vernon to date falls within management plan goals (40-60%). A major issue successfully resolved.

Mr. Sprankle reviewed other regional migratory fish count data. Shad counts are low in other systems, river herring counts showed some limited improvements specific to alewife, blueback remain low, and Atlantic salmon counts are down from numbers seen in 2011.

A review of assignments for Chair for the nine updated Subcommittee were reviewed. These groups will be start meeting soon to address a diversity of diadromous species and habitat concerns. Mr. Sprankle also reviewed some turbidity and flow figures for spring of 2011 and 2012

to compare pre and post Irene possible flood/erosion issues. No immediate differences were apparent from lower river USGS station.

Mr. Gephard asked about radio tracking of tagged salmon released at Holyoke and VTDFW given past role.

Mr. Cox stated that monitoring will be reduced from the past with Melissa Belcher conducting some tracking. The upper main stem ladders will identify passage of these fish by digital monitoring. Mr. Gerardi note there are two salmon upstream of Bellow Falls Dam, and they would look around as time permitted. Mr. McKinley stated USFS could help but has no receiver equipment.

3) Salmon Subcommittee

Mr. Gephard gave a verbal report on the US Atlantic Salmon Assessment Committee meeting, which occurred at Conte Lab in March. He noted this meeting was summarizing information from 2011 season and the report and past ones are available at www.nefsc.noaa.gov/usasac/. He described the reports data and analyses components and historic compilation of a variety of data. He noted the 2013 meeting (March) will occur in Old Lyme at his office.

An update on the North Atlantic Salmon Conservation Organization (NASCO) was provided, with Steve noting he was a delegate with George Lapointe (Maine), and is led by Mary Colligan (NOAA). Mary is also current President of NASCO. He reviewed that catch measures for salmon in Greenland were up for renewal this year and things went well in terms of keeping restrictions on export (only internal consumption). Measure for the Faroe Islands were developed which do not seem to impact USA stocks. NASCO also adopted reported mechanisms. An external review of NASCO was completed and had recommendations on things like treaties. Mixed stock fisheries were discussed and how they can be managed to avoid impacts to systems below conservation target levels. Increased genetic sampling of the St Pierre Miquelon fishery will occur.

Dr. Ardren asked about SALSEA research findings. Mr. Gephard had reported on this in past. He stated that results have shown shifts in distributions of salmon, prey and predators in a northern direction. No smoking guns have been identified to explain the 20+ years of reduced marine survival rates.

Mr. Dan Marchant provided a handout on fish culture activities. Highlight of the report include the best current data on fry stocked out in the basin this spring which are believed to total 2.2 million fry, which came from 4.94 million eggs taken.

Mr. Sprankle noted he has not received all agency stocking records so Mr. Marchant's numbers on fry and smolts are the best information at this time.

Mr. Marchant reported total of 84,000 smolts stocked from Eisenhower NFH and an additional 3,800 smolts stocked from Berkshire NTH. It was noted the Cronin Salmon Station reared for stock out 85,000 fry. Roger Reed (MA) released approximately 1.57 million fry (MA, VT,

NH). Roxbury Hatchery (VT) stocked out approximately 167,000 fry into VT. Kensington Hatchery (CT) released approximately 416,000 fry.

Mr. Mickey Novak reported that Cronin Salmon Station has 40 adult returns on station, all of which are multi-sea winter fish. There have been no grilse captured or observed. Only one of the adult fish has an adipose clip (smolt origin stock out).

Dr. Ben Letcher provided a handout showing year-classes of marked fish. He stated he would present first year study results from USFWS Dr. Barton's analyses at the July 10th meeting. He noted this would cover several early study years and the most current analyzed with second year work being undertaken now. VTDFW is working on developing funding contract at this time. Mr. Gephard asked if next year's work would proceed more quickly given the QA/QC work that is occurring now. Dr. Letcher responded yes.

4) Fish Passage

Mr. John Warner provided a handout and described how two meetings by the agencies had been held in the winter to address the pending relicensing of 5 large hydro projects (Turners Falls Dam, Northfield Mtn Pump Storage, Vernon dam, Bellows Falls Dam, and Wilder Dam). The meetings were centered on 1) fish passage (up and downstream issues), 2) fish population impacts (e.g., shortnose sturgeon), and 3) environmental conditions (spill flows, operational flows, bypassed river reaches). This fall the Preliminary Application Documents will be due and time lines for actions by FERC will begin.

Dr. Brett Towler was asked to review fishway inspections which were developed and scheduled following agency meeting in the fall where concern on ensuring fishway operations relative to design plans and any agreed to modifications were being followed. Holyoke, Turners Falls and Vernon Dam all had pre-season inspections done using a systematic form and included the input from Dr. Alex Haro. Together, these two were able to identify serious issues at Vernon Dam which were promptly addressed by Trans Canada. As noted earlier, shad passed at Vernon in 2011 total 46 and we are at over 10,000 this year at the same facility. In season monitoring has continued and brought emerging issues quickly to light and correction. In all cases necessary fixes were quickly made by either TransCanada or First Light Power. It was noted that ongoing monitoring at fishways to ensure they are performing as designed or as modified/agreed to.

Mr. Len Gerardi asked if we could include this type of monitoring into the relicensing. Mr. Warner stated yes. It will be important to ensure these elements are included in those discussions.

Mr. Warner continued with a status report facility by facility (refer to handout).

Mr. Gephard provided many updates on non-FERC jurisdiction projects which included plans to build a fishway on the dam at Rogers Lake (lower main stem trib), the Eightmile River Ed Bills Pond Dam removal, Mattabesett River fishway (will open 60 miles of habitat), and movement on getting a design for a replacement of the Rainbow Dam fish ladder, in addition the breached

Spoonville Dam which is believed to present a fish passage barrier to water velocities will be fully removed.

5) Shad

Mr. Sprankle provided a handout. He noted the subcommittee last met immediately after the Tech on Jan 24 and minutes / materials can be provided on that. That meeting focused on the results to date of the 2011 Shad Migration and Survival Study. It also covered plans for the 2012 study.

Mr. Sprankle stated the 2012 Shad Study, using the National Fish and Wildlife Grant award (\$60K) purchased additional receiver equipment allowing for expansion of stationary sites. In summary, a total of 16 receiver sites were installed in March below Turners Falls Dam, 5 new sites added in 2012 between Holyoke and Turners dams. New receiver stations were also added between Turners Falls and Vernon Dam. In total 24 fixed station sites are being operated with the larger array receiver also operating at the upper end of the Turners' Falls Canal. In addition, PIT readers are operated at Holyoke, Turners Falls and Vernon Dam fishways.

Netting and tagging in the lower river began the first week of April; catch rates started low and quickly escalated to rates 4-5 fold greater than observed in 2011. A total of 89 shad were radio/PIT tagged at mouth, additional 56 PIT only tagged. At Holyoke Fish Lift a total of 76 shad radio/PIT tagged, additional 53 PIT only tagged. At Cabot Station Ladder a total of 120 shad radio/PIT tagged, additional 120 PIT only tagged. Releases at Cabot were paired using fish captured at exit of the Cabot Ladder and fish brought from HFL and tagged released same spot. Receivers span 120 river miles of distance and are downloaded manually 2-3 days per week. We also completed one whole river mobile tracking effort. This will be repeated two more times. Radio gear and tracking will conclude in early August to ensure any adult outmigrants are detected.

Shad transfers from HFL have not been compiled due to not having all agency reports on those activities. Agencies that transferred shad from HFL include CTDEEP, NHFG, Conte Lab, and RIDFW. Fish health testing of shad was completed by USFWS with all fish testing negative for pathogens of concern.

The 2012 shad run as measured at HFL is the fourth highest in the data time series. This adult return was not expected and reasons for the large size are unknown. Juvenile Index surveys by CTDEEP do not suggest any out-of-the expected range of yearclass strength from 3-6 years prior. Other rivers systems had generally poor shad returns.

ADDED - River Herring discussion

Mr. Gephard started by noting that NOAA is holding three meetings on river herring associated with their review of potentially list these species under ESA. He attended the first focusing on stock structure, the others cover risk of extinction and climate change. There has been progress made with the NE Fisheries Mgt. Council and Mid Atlantic Mgt. Council and the monitoring of bycatch which may impact river herring and shad. The bycatch may occur in Atlantic Herring

fishery and other small mesh mid-water trawl fisheries (squid, butterfish). Data is lacking. The meeting just attended included genetic classification work to identify differences in genetics, which was apparent and permitted some aggregating by area; northern New England (Canada border to NH/MA line), southern New England (NH/MA line to Hudson) with the Connecticut River standing out as unique, perhaps in synch with other Long Island Sound pops, unclear. This work was focused on alewife. In the case of blueback herring, the Connecticut River stock matches up with the middle Atlantic group genetics.

6) Blueway Designation for CT River

Mr. Andy French (manager of SO Conte Fish and Wildlife Refuge) was introduced. Mr. French discussed how the administration's America Great Outdoors Initiative includes the develop of Blueway plans. The CT River was designated as the first Blueway and will serve as a model which is designed to support federal government interagency support for recreation, conservation and education activities. He has developed an MOU with federal partners and the Ct River Watershed Council. He also discussed that the Friend of Conte has Stewardship Committee that addresses conservation needs. He believes CRASC should have a person participate on that committee. Mr. Gephard suggest Mr. Sprankle, all were in favor. Mr. Sprankle agreed to represent the CRASC Tech on that committee. ACTION ITEM – must confirm CRASC Ok with this item.

7) Vermont Yankee – environmental permits up for renewal

Mr. Sprankle noted he had written a letter (from USFWS) to VTANR as that agency has authority to renew both the NPDES permit (administratively expired) and 401 Water Quality Certificate. He stated that as a member of the VY Environmental Advisory Committee with other agency partners, that group had been tasked by VTANR with providing guidance on 316A of the NPDES which is specific to the heated water discharge. The 316B covers the impingement and entrainment of organisms that are entrained/impinged into the station's cooling water system. He noted key elements of the letter, such as required fish passage periods at Vernon Dam do not match permitted Winter (October 15 to May 15) and Summer (May 16 to October 14) permit thermal discharge periods. Vernon Dam fishways are 0.45 miles downstream of discharge point, same river bank. Discharge from the plant may reach 100F at a rate of 800 CFS, with compliance determined via a formula and measured temperatures 3.5 miles upriver of the plant and also 0.6 below Vernon Dam. In "winter" limits the entire river may be heated up to 13.4F, as determined 0.6 miles below Vernon Dam, where it is considered fully mixed. In the fall, the juvenile shad outmigration period is also not aligned with "summer" shift to "winter" limits, as the outmigration period extends through November 15. Mr. Sprankle noted that regardless of improvements in passage efficiency at Vernon Dam (even if meeting management goals of 40-60%) it is important to carefully consider all the potential impacts to the restorations goals of this Commission, based on the timing, magnitude and duration of exposure of adult shad migrating upriver, passing back downriver and also for juveniles on their outmigration (full temporal and spatial scale for all lifestages). Water temperatures are a primary cue for movement upstream, energy use, gonad maturation, spawning and juvenile outmigration. Specialized studies should be developed to address these concerns which have not been examined in the absence of the discharge (control).

It was agreed by Tech vote that the Commission be briefed on this matter and asked to consider writing a letter to voice the concerns raised by the Coordinator.

Meeting adjourned at 1:30 p.m.

ATTENDANCE

CRASC TECHNICAL COMMITTEE MEETING – July 10, 2012

<u>Name</u>	<u>Affiliation</u>
Ken Sprankle	USFWS/CTRC
Caleb Slater	MADFW
Tim Wildman	CTDEEP
Steve McCormick	USGS
Ben Letcher	USGS
Alex Haro	USGS
Dan Marchant	MADFW
Melissa Belcher	VTFW
Lael Will	VTFW
Bob Stira	FirstLite Power
Mickey Novak	USFWS/RCNSS
Steve Leach	Normandeu
John Pierce	Normandeu
Andrea Donlon	CT.River Watershed Council
Ken Cox	VTFW
Caleb Slater	MADFW
Brett Towler	USFWS
Melissa Grader	USFWS/NEFO
John Warner	USFWS/NEFO
Karl Meyer	Journalist