



**Connecticut River Atlantic Salmon Commission
Turners Falls, Massachusetts
Meeting Minutes
October 2, 2012**

Agenda Items:

1. Determination of Quorum, Approval of Today's Agenda & Minutes of the July 10, 2012 Meeting.

Chair Mr. Bill Hyatt called the meeting to order at 10:10 a.m.

Mr. Hyatt opened the meeting, and the Commissioners and staff introduce themselves followed by the general audience.

It was noted that under Other Business, the State of Connecticut would provide a review of the Atlantic States Marine Fisheries Commission Shad Sustainability Report by their Marine Fisheries staff. The minutes of the last CRASC meeting on July 10, 2012 were reviewed. A motion to accept the minutes from that meeting was made by Mr. Jones, seconded Mr. Normandeau, all were in favor.

2. Report of the Executive Assistant

Mr. Sprankle provided a handout and reviewed his report, refer to attachment for details. Item A., was an update to some fish count data in aggregate and by trap/passage facility, an update of the adult shad passage out of Turners Falls Gatehouse compared to Vernon Dam ladder was reviewed. Item B., was an update of Atlantic salmon stocking by lifestage for all major sub-basins, which included adjustments for smolt assessments (e.g. % parr). Item C, was a table showing age and origin for the 54 known adult salmon captured this year based on scale reading, 48 of 54 fish determined as wild origin and 2:2, with only one known smolt stocked return. Item D, was a brief overview of the 5 main stem FERC hydro power project relicensing; Wilder, Bellows Falls, and Vernon Dam – TransCanada and Northfield Mountain Pump Storage and Turners Falls – FirstLight Power. FERC scoping site visits began on 10/1 and will end on 10/5, for these five projects, applications have not yet been filed. Field visits were arranged early by FERC to avoid winter visits – which would have been required following applications. Item E., Cabot Fishway (Turners Falls) was hydraulically examined based upon current design by USFWS Engineer Brett Towler, whose report showed important concerns based upon accepted engineering criteria. Modifications done under agency direction, will be changed using this new analyses to hopefully create an improved passage environment (e.g., reduction of turbulence). A meeting with FLP is planned and modifications are not considered major work activities. Item F., provided a summary of stock out locations, numbers and agencies for American shad transferred out of Holyoke Fish Lift (total of 3,358 fish, with 1,064 stocked upstream of Vernon Dam). Item G., was a brief overview describing juvenile shad sampling, principally boat efishing to determine relative abundances, fish sizes in relation to time and area. Recent weeks effort has shifted to include water temperature transects in vicinity of Vermont Yankee discharge and forebay of Vernon Dam. Item H., an update on a USFWS initiative to start an East Coast River Herring Team (Mike Bailey & Ken Sprankle co-chairs), to coordinate USFWS river herring assessment and restoration activities, identify needs and opportunities. First call was in August. MA Division of Marine Fisheries has meeting on Oct 10th (agencies from Maine to New York) on coordinating assessment activities for river herrings. Last item (I) water temperature monitoring,

data retrieval from 24 loggers from Wilder Dam to Old Lyme CT has started. Will have 3 years continuous (year round) data from most sites with the data having been shared with USGS, State of CT, CT River Watershed Council, and Vermont Yankee (law firm FOIA action).

Mr. Hyatt asked if there was a motion to accept the report, which was made by Mr. Palmer, seconded, and all were in favor.

3. Report of the Technical Committee Chair and Subcommittee Reports

Dr. Slater provided a verbal report for the Sea Lamprey Subcommittee noting it had met in the summer (Chair Melissa Grader), and is drafting a management plan. He referred the Commission to an attachment for the Fish Culture Subcommittee which held a pre-spawn (ATS) meeting on Aug 28th. That committee anticipates total salmon egg production at 4.85 million green eggs (domestics, sea-run and possible kelts). A similar spawning plan, to last year, was developed and he reviewed the elements with the Commission. He introduced Dr. Ben Letcher to provide an update on the analysis of the salmon marking program being done in cooperation with USFWS's Dr Meredith Bartron. Dr. Letcher provided a handout with several figures that highlighted several findings. First, the mainstem was sampled at Holyoke and Cabot stations samplers providing 1,823 smolts from which 230 (13%) were from batch "marked" family groups. Analyses of the stocking origin for this smolt cohort showed disproportionate contributions from the tributaries of the West, White and Moose rivers. However, when compared to the 2004 smolt cohort (similar analysis) the Millers, Ammonoosuc, and West were the top three with closer values. His results also showed earlier migration/trapping of southern trib origin smolts that more northern by about 2 weeks.

- Mr. Archambault asked when will be finished with the analyses?
- Dr. Letcher, we are done with 2010 but have some more backlog to cover, second phase, using VTDFW grant money in place.
- Mr. MacCallum – with our original hypotheses what is this telling us?
- Dr. Slater – the program is designed to help identify whether there are differences in smolt production capabilities of certain tribs (or trib groupings) and later in time, where returning adults actually originated from.
- Mr. MacCallum – are there any relationships relative to number of fry stocked out relative to the northern areas?
- Dr. Letcher – also remember that this data does not include the Farmington or Westfield rivers. We will have this information for the Farmington River as it has a fish sampler at Rainbow Dam.
- Mr. Hyatt – based on these two years presented it appears the White and the West rivers are the best of the study group examined.
- Dr. Letcher – the adult analyses will really tell the story of interest
- Mr. MacCallum – when will have the information on the adults?
- Mr. Archambault – we have the smolt run samples and adult returns tissue samples and using the VTDFW grant, USFWS is working on getting those done. The lead researcher is out on maternity leave but processing is continuing.
- Mr. Hyatt – why the difference between 2004 and 2010? – something like flows?
- Dr. Letcher – hard to know, could be many factors, that's why the adult return data is the most valuable.
- Mr. McKeon asked if we have archived the 2011 samples
- Dr. Letcher – yes we have the smolts and adult samples as you know, just a very small sample (54 fish) only a percentage of stocked fish are marked. We have every smolt year since 2004.

- Mr. Palmer – we in VT with our SWG money have identified the most valuable data as the adult returns origin. Dr. Barton is working on this.
- Dr. Ardren – we should consider information prioritization, with adults the highest as you have fish that have survived and returned (relatively small sample size – have them all in hand), as opposed to smolts which are numerous – only partially sampled (many samples to process) of which only small percentage are marked, and they may not survive to be adults for various factors.
- Dr Letcher – again clarified – started with 2004 smolts (age-2) that translates to 2006 adults (mostly 2 sea winter), we have 2006 adults through this fall 2012 (54 adults).

4. Report of the Technical Committee on CRASC Salmon Program Charges

Dr. Slater referred the Commission to the Technical Committee's Salmon Report and then he reviewed it in detail. He noted that the first charge was an inventory of what resources remain by agency/partner and read through their status. This was followed by an analysis of the situation put in the context of the current Restoration Plan. The Committee determined the Plan's current goal could not be achieved, it must be revised under the existing hatchery management limitations. The Report outlined opportunities that could still exist in a restructured program given the loss of USFWS hatcheries but remaining state facility involvement. This list explained in further detail in the report includes, biodiversity, genetic legacy, education, research, sentinel species, and angling. A suggested new mission statement was provided for consideration. A total of four options, which includes remaining unknowns were reviewed and labeled as 1, 2, 3A, and 3B. These options are reported below in their entirety:

OPTION 1- No salmon activities of any kind. CRASC has the authority to recommend stocking and management programs to participating States and act as a coordinating body but it cannot prevent any State from engaging in salmon management on its own. Under this option, we assume that any state that wishes to raise and stock salmon would be free to do so on its own but CRASC would have no involvement.

OPTION 2- No change from the present. This option is not available.

OPTION 3- A legacy program that maintains a small Atlantic salmon population in the basin and a recreational broodstock fishery within or adjacent to the basin. The Technical Committee could envision only two possible alternative options: one with RCNSS operating and one without RCNSS operating. It appears that it is inevitable that RCNSS would cease operation (at least for wild Atlantic salmon) at some time so the two options are presented together as Option 3A and 3B. There are many details of these options that could be debated and adjusted. This proposal does not intend to be highly prescriptive for all possible issues but it intends to identify most of the main issues for future discussion. The basic features and issues of this legacy program are summarized below in bullets:

Sub-option 3A (RCNSS available for salmon)-

- All eggs incubated at RCNSS will be transferred to Kensington and/or Roger Reed hatcheries upon eye-up and a disease-free report from the USFWS.
- Both Kensington and Roger Reed will maintain a domestic broodstock for the purposes of producing eggs and fry for stocking.
- Kensington and/or Roger Reed will provide some eggs to the Roxbury hatchery (VT).

- Kensington will stock out more domestic broodstock into the Naugatuck and Shetucket rivers than normal to reduce its hatchery population down to levels that will produce 250 3+ year old broodstock annually.
- According to USFWS conditions, CRASC will write a letter to the USFWS by November 1 annually, requesting the use of RCNSS as a holding station for sea-return adult salmon the following year. However, the Technical Committee recognizes that in order for CRASC to take advantage of all of the State resources that may be available for this effort, a statement of intent by the USFWS to use RCNSS for holding salmon until at least 2015 is needed.
- Kensington will produce between 200,000 and 300,000 feeding fry per year.
- Roger Reed will produce between 700,000 and 900,000 unfed fry per year.
- Roxbury will produce between 200,000 and 300,000 unfed fry per year.
- CTDEEP will stock fry into selected sections of the Farmington and Salmon rivers, including key areas of suitable spawning habitat currently accessible to sea-run fish.
- MDFW will stock fry into selected streams in Massachusetts.
- VTFW and the USFS will stock fry into selected streams in Vermont.
- CTDEEP may continue to monitor smolt runs at the Rainbow Dam and parr populations via annual electrofishing surveys but these efforts will be greatly reduced.
- MDFW may continue to monitor parr populations via annual electrofishing surveys but these efforts will be greatly reduced.
- VTFW and USFS may continue to monitor parr populations via annual electrofishing surveys but these efforts will be greatly reduced.
- USFS may continue to assist with the monitoring parr populations via annual electrofishing surveys in watersheds adjacent to the Green Mountain National Forest, but these efforts will be greatly reduced.
- No additional smolt tagging and mark-and-recapture studies will be conducted on the mainstem river.
- All fishway owners and partners are encouraged to cooperate with any researchers who seek access to migrating smolts.
- Downstream fish passage at tributary dams shall continue to be provided by licensees if it is the desire of the host state agency and the USFWS, mindful that species other than Atlantic salmon also use these facilities.
- CTDEEP, MDFW, and HGE will monitor fishway traps for returning adults and work cooperatively to capture and transport fish to the RCNSS. CTDEEP will transport fish from CT while the USFWS will continue to be the primary transporter for salmon captured in MA.
- RCNSS will hold the salmon for fall spawning. Genetic sampling and PIT tagging will no longer be conducted. Vaccinations and all fish health screening will continue, including the need for quarantining control fish.
- A policy on releasing salmon at Holyoke to continue upstream migration will be developed in consultation with TransCanada and others. If RCNSS is still operational in 2017, it is expected that no more returning salmon will be released

from that year onward. It is assumed that all radio-tagging of salmon at Holyoke will cease effective the spring of 2013 and that every tenth salmon be released at Holyoke without batch releases. The Technical Committee will consult with TransCanada to determine if there remains interest and opportunity to continue some radio-tagging.

- A policy on the operation of the Bellows Falls, Wilder and Townshend fishways be developed in consultation with TransCanada and the USACOE. It is suggested that each fishway be opened once a salmon passes through the next downstream fishway.
- In the fall, a multi-agency group of workers will spawn salmon at RCNSS as has been the practice in recent years. Genetic characterization and a genetically-based mating scheme will be discontinued in 2013 and mating will be conducted in a random-blind manner as was done earlier in the program's history. The USFWS will continue to order hormones to facilitate spawning, as funds permit.
- After spawning, RCNSS will either destroy the broodstock or release them into the mainstem Connecticut River below Holyoke (if the use of an alternative antibiotic can be adopted). Eggs will be incubated on-station until they are eyed and certified disease-free by the Lamar Fish Health Unit. At that time, they will be transferred to the Kensington and/or Roger Reed hatcheries to support the domestic broodstock and next year's fry stocking.
- Eggs will be provided to school programs in CT and in other states by request. RCNSS will assume primary responsibility in MA as long as RCNSS operates. USFS likely to assume primary responsibility in VT.
- Eggs and parr from the Kensington and/or Roger Reed hatcheries will be made available to researchers, upon request.

Sub-option 3B (RCNSS not available for salmon, subsequent to 2012)-

- Kensington will produce between 200,000 and 300,000 feeding fry per year.
- Roger Reed will produce between 700,000 and 900,000 unfed fry per year.
- CTDEEP will stock those fry into selected sections of the Farmington and Salmon rivers, including key areas of suitable spawning habitat currently accessible to sea-run fish.
- MDFW will stock fry into selected streams in Massachusetts.
- If eggs are provided to the Roxbury hatchery, VTFW and USFS will stock fry into selected streams in VT.
- CTDEEP may continue to monitor smolt runs at the Rainbow Dam and parr populations via annual electrofishing surveys but these efforts will be greatly reduced.
- MDFW may continue to monitor parr populations via annual electrofishing surveys but these efforts will be greatly reduced.
- VTFW and USFS may continue to monitor parr populations via annual electrofishing surveys but these efforts will be greatly reduced.
- No additional smolt tagging and mark-and-recapture studies will be conducted on the mainstem river.

- All fishway owners and partners are encouraged to cooperate with any researchers who seek access to migrating smolts.
- Downstream fish passage at tributary dams shall continue to be provided by licensees if it is the desire of the host state agency and the USFWS, mindful that species other than Atlantic salmon also use these facilities.
- CTDEEP, MDFW, and HGE will monitor fishway traps document all returning adults but allow them to continue upstream. Agencies will have the option of handling the fish, measuring and sampling, and even tagging them if they wish. Reports of released salmon will be forwarded the Coordinator's office for communication with partners and maintaining a database.
- State agencies will maintain regulations that prohibit the taking of salmon.
- A policy on the operation of the Bellows Falls, Wilder and Townshend fishways will be developed in consultation with TransCanada and the USACOE. It is suggested that each fishway be opened once a salmon passes through the next downstream fishway.
- In the fall, partners will be encouraged to conduct redd surveys in tributaries where returning salmon are thought to have entered.
- The domestic broodstock at Kensington and Roger Reed will be more-or-less self-contained without the input of sea-run salmon eggs. Occasionally, the CTDEEP and MDFW will collect mature male parr from fry-stocked streams and use them to fertilize eggs to keep some "wildness" in the gene pool. Furthermore, whenever redds are found in state streams, parr will be subsequently collected from that area in hopes of using mature parr that were produced from sea-run adults to contribute to the domestic gene pool.
- Eggs will be provided to school programs in CT and in other states by request. RCNSS will likely assume primary responsibility in MA as long as it continues to operate. USFS like to assume primary responsibility in VT.
- Eggs and parr from Kensington and Roger Reed will be made available to researchers, upon request.

5. Discussion of Technical Committee Report and Salmon Program

Chair Hyatt stated the report answers the questions (charges) given to the Technical Committee by the Commission and thanked the Committee, but there are questions that will be evolving.

Mr. Archambault – also thanked the Committee for the report and noted the date to request (in a letter) the use of Richard Cronin Salmon Station to retain sea-run returns in 2013 should be changed to January 1, 2013. He noted that due to the election year, the continuing budget resolution, and other unknowns, the Service will need time, likely through early March, before it will have adequate information to respond to such a request.

Mr. MacCallum – thanked the Committee for the report, and stated it does a good job addressing the charges of the Commission.

Mr. Archambault – the future of Cronin depends on the budget and when/if a revised mission for Cronin is developed. At the current time there is no new mission. He noted that it will be important for the partners to determine what they can provide in terms of support to operate Cronin to receive, hold, spawn, incubate eggs of sea-run fish in 2013. He noted their maybe opportunities for an annual Memorandum of Understanding to keep Cronin operating in this capacity dependent on other factors.

Mr. MacCallum – I want to be clear on these options, Option 3 assumes MADFW keeps commitment in resources, CTDEEP keeps ~50% commitment, driven by broodstock fishery, VTDFW keeps same commitment, and NHFG would stock some fry if available?

Mr. Normandeau - stated that yes, NHFG would consider stocking some fry if available.

Mr. MacCallum – and USFWS will allow an annual operational consideration of Cronin.

Mr. MacCallum asked about the Salmon in Schools Program and USFWS and Mr. Archambault replied that USFWS would want to continue to support that program. Mr. MacCallum noted that for 2013, spring, we will be at ~ 14% of our strategic plan fry stocking goal, with a significant decrease in the upper basin and near status quo for MA and CT (or about 75% of recent years stocking). We have never achieved our target stocking goal. What about the staff at Cronin?

Mr. Archambault – staff will be reduced, to manager, the future mission of Cronin remain unknown. It will important to know what the resources can the states bring on this request.

Mr. MacCallum – so there are no assurances after this year?

Mr. Archambault – there are no assurances.

Mr. Hyatt – so we have uncertainty with 3A or 3B..

Mr. Archambault – what can the states bring to help needs to be part of the request.

Mr. Hyatt – the states do a lot already, transporting fish, spawning, etc.

Mr. Archambault – we are talking operational costs, staff will need to be discussed.

Mr. MacCallum – by operational you are talking about paying the bills.

Mr. Archambault – yes, everything needs to be considered.

Mr. MacCallum – we should make every effort to get information on the fish that are still out in the wild, to inform us. We do have multiple yearclasses out in the wild and we should see if there is something to still learn, such as remaining data with genetic marking program. We should recognize these investments. Lastly, a philosophical comment – we as agencies have made much progress on restoring and managing fish and wildlife populations, the sea-run Atlantic salmon is the only one that has not been restored.

Mr. Archambault – the USFWS technical and science expertise will still be available for continued monitoring and assessment of CT River Atlantic salmon.

Mr. Hyatt – is their motion to accept this report?

Mr. Hyatt – appears we will move forward with either 3A or 3B options. There are still a lot of unknowns and will need to wait for some clarifications.

Mr. MacCallum – MADFW will give 100% commitment through the spring of 2013, beyond that it is difficult to say. Cannot say what the level will be later, these decisions must go through the Massachusetts Fish and Wildlife Board.

Mr. Hyatt – that’s fine.

Mr. Archambault – I request that a change be made in the report that the request to operate Cronin for salmon be due to USFWS by January 1, 2013.

Mr. Hyatt – yes.

Mr. Palmer – the report is accurate on details and VTDFW supports option 3

Mr. Hyatt – is there a motion to accept the report with the date change for Cronin request to January 1?

Mr. Normandeau - #3 option has lots of uncertainty, will accept.

A motion to accept the report was made, seconded, and all were in favor.

Mr. Hyatt – is there a second motion? No, we will move forward with Option 3.

Mr. Joe McKeon – on the issue of Cronin and its need there are the issues of fish health risks, Cronin is an isolation facility and we may be able to consider balancing risks as we have done on the Merrimack River. In that program a certain level of risk was determined acceptable to gain some facility flexibility with other species and management options. Are there any other facilities that may be able to be considered if adult returns are expected to be low?

Dr. Slater – bringing sea-run, wild salmon on a state facility will automatically change the facility classification.

Mr. Gephard – yes we have considered this and don’t have an option.

Dr. Letcher – have we considered get the returns into one tributary system? There are lots of unknowns but may have some management value and also an opportunity in future.

Mr. Gephard - adult returns are from all the tributaries due to widespread stocking approach, so adults are motivated to be in their “home” stock waters, can’t make them stay. (Dr. Letcher was aware of this but implied future stocking efforts be focused in a few/one watershed). Commission may be able to consider this more fully as we move forward with implementation measures.

Mr. Jim Carroll – will 2013 be the last year of smolt stocking?

Mr. Gephard – yes, that is correct.

6. Vermont Yankee NPDES Permit Letter

Mr. Sprankle noted that the Commission has agreed to send a letter regarding concerns with Vermont Yankee's permitted heated water discharge (e.g., existing permitted thermal limits are of biological significance spawning/movement, etc; permit temperature limits disconnected to existing fish passage seasons operation dates required at Vernon Dam; unknown potential effects for adult shad up and downstream passage and juvenile downstream passage, due to close proximity to discharge plume at VY and the Vernon Dam fishways < 0.5 miles same river bank side, based on numerous peer reviewed publications; no studies done to date to examine whether potential impacts due to timing, duration, magnitude and extent of exposure to elevated temperatures; what are potential impacts to CRASC fish management objectives under these permitted conditions) at last meeting but it had not yet been finalized and signed.

Mr. Hyatt – Ken had worked on a draft and that has been stalled, I would like to work on getting final comments in and getting that letter out.

Ms. Lynn Dewalt – On behalf of Vermont Yankee we appreciate the opportunity to address CRASC and share in information. We have some serious concerns with the water temperature study information obtained from USFWS (FOIA obtained raw data). I would like to introduce Dr. Craig Swanson, an Engineer, who worked on developing the thermal model for Vermont Yankee and has a report examining USFWS obtained data.

Dr. Swanson – on behalf of VY, I would like to make some observation regarding the USFWS temperature data, these include concerns that river flows were not considered in measures as well as concerns with methodologies and some of the raw temperature field data. We suspect that a logger may have been exposed to air or some were in locations which may not reflect temperatures appropriately. There are many inputs that must be considered when doing a temperature study and we are in the process of developing such a model. If the Commission could wait another 10 days, this report will be sent to the Commission, so we request you hold off on sending the draft letter that is being discussed.

Mr. Hyatt – thank you for your feedback, Ken should meet with you to discuss your concerns.

7. Other Business

Chair Hyatt introduced Mr. David Simpson, Chief of CTDEEP's Marine Fisheries Division.

Mr. Simpson – I am here today to request CRASC approval and endorsement of a required Atlantic States Marine Fisheries American Shad Sustainable Fisheries Plan, in order to continue to allow recreational and commercial in CT under Amendment 3 of that species plan by the Commission. The Plan has been developed using the best scientific information available and we believe supports the case to allow existing low levels of recreational and commercial fishing pressure and harvest. The Plan was developed using three primary metrics – fish passage, recruitment, and escapement. Using these metrics a decision tree will be utilized to determine if

population levels are sustainable under existing management. We have some more work to refine this further. The ASMFC Board will be meeting in two weeks so we would ask you to please review and if possible approve the proposed plan with a letter to the ASMFC.

Mr. Hyatt – thank you Dave. Dr. Slater – can the Tech Committee provide an electronic vote after review and then Mr. Sprinkle can inform the Commission, in the next week?

Dr. Slater – yes we can, we'll work with Ken and MADMF is also submitting its Plan (they are the State of MA, official ASMFC member agency)

Mr. Sprinkle – Dave, as soon as you can get me an ecopy, I'll work with the others to get this done for the Commission and CTDEEP.

Mr. Normandeau - NHFG is planning on defaulting to catch and release in its main stem (most of river) and tributary waters (Ashuelot) of the Ct River.

Meeting adjourned.

ATTENDANCE

Name

Affiliation

Bill Hyatt	CTDEEP/BNR
Wayne MacCallum	MA/DFW
Ken Sprinkle	USFWS/CTRC
Bill Archambault	USFWS
Dan McKinley	USFS
Robert A. Jones	CT Public Sector
Glenn Normandeau	NHFGD
Len Gerardi	VTFW
Bill McDavitt	NOAA
Kim Damon- Randall	NOAA
Stephen Gephard	CTDEEP/Inland Fisheries
Mark Hutchins	Normandeau Associates
Tim Brush	Normandeau Associates
Eric Palmer	VTFW
Bill Ardren	USFWS
Joe McKeon	USFWS
Melissa Grader	USFWS
Caleb Slater	MADFW
Bob Stira	FLPR/GDF SUEZ
Jim Carroll	CRSA
Elizabeth Kendall	Capitol Region Education Council
Gina Accorsi	UMASS Geosciences
Michael Sears	HDR
Matthew Brewer	Goodwin Procter
Lynn Dewald	Entergy Vermont Yankee
Craig Swanson	RPS-ASA
Mickey Novak	USFWS
Darleen Cutting	USFWS