



Barnstable County Coastal Resources Subcommittee (BCCRS)

Approved Minutes | April 20, 2022, at 9:00 am

Virtual Meeting via Zoom

The meeting was held virtually, with members of the Barnstable County Coastal Resources Subcommittee participating remotely, pursuant to Chapter 20 of the Acts of 2021, An Act Relative to Extending Certain Covid-19 Measures Adopted During the State of Emergency, signed into law on June 16, 2021.

The Chair announced that because the meeting was being held virtually all votes and other actions would be done by roll call. He stated that the members participating remotely would be announced as roll call is taken.

Roll Call

Town	Member	Attendance
Barnstable	Nina Coleman	Present
Bourne	Stephanie Fitch	Present
Brewster	Chris Miller	Present
Chatham	Dr. Robert Duncanson, Chair	Present
Dennis	Karen Johnson	Present
Eastham	Shana Brogan	Present
Falmouth	Jennifer Lincoln	Absent
Harwich	Heinz Proft	Absent
Mashpee	Ashley Fisher	Present
Orleans	Vacant	----
Provincetown	Tim Famulare	Present
Sandwich	David Deconto	Absent
Truro	Emily Beebe	Present
Wellfleet	Hillary Lemos	Absent
Yarmouth	Karl von Hone	Present
Ad Hoc (non-voting)		
MassBays Regional Coord	Dr. Jo Ann Muramoto	Present
At large	Steve McKenna (co-Chair)	Absent
At large	Donald Liptack	Absent

Others present:

Cape Cod Cooperative Ext Shannon Hulst

Cape Cod Cooperative Ext	Abigail Archer
Barnstable County Dredge	Ken Cirillo
NRCS	Deron Davis
NRCS	Stephen Spears

Public Comments

There were no public comments.

Approval of Minutes

Upon a motion by Karl von Hone, seconded by (there was no second), the minutes of the January 19, 2022 BCCRS meeting were approved with a roll call vote.

Roll Call Vote

Nina Coleman	Yes
Stephanie Fitch	Abstain
Chris Miller	Yes
Dr. Duncanson	Yes
Karen Johnson	Yes
Shana Brogan	Yes
Ashley Fisher	Abstain
Tim Famulare	Yes
Emily Beebe	Yes
Karl von Hone	Yes

Updates from coastal and marine County program

Ken Cirillo, County Dredge Program Director, provided an [update for the dredge program](#).

Mr. Cirillo began his update with the Pocasset River project near Monument Beach. He said the material dredged in the river could not be used for beach nourishment, so they were not able use the county dredge. Instead, they rented a 6" DINO dredge and used a contractor to help set up the project in three targeted areas of the river: near the bridge, the marina area, and near the breakwater.

Mr. Cirillo said the last time the river was dredged was sixteen years ago. He said the project was challenging given the 2700 feet of pipe, weather delays, and the large amount of debris and muck found in the river. Mr. Cirillo said the muck impacted survey accuracy as it was difficult to locate the river bottom. He shared photos of different stages of the project, including the geotextile bags filled with dredged material to the maximum capacity of 150 L x 5 H and a circumference of 64". He said

the town opened the bags in March to dispose of the material at the town dump. Mr. Cirillo reviewed the cost of the project and said it was less expensive than hiring a private dredge company. He encouraged other towns with similar projects to consider this route.

Ms. Coleman asked if they did a post-data survey to confirm the material did not fill back in and that the achieved depth remained. Mr. Cirillo said two of the areas they dredged, including where the docks were removed, could have continued to be dredged and the areas would benefit from maintenance dredging. Ms. Colman asked if dredging the river improved the water quality. Mr. Cirillo said based on the amount of debris they pulled out of the river, a research project could be done to confirm water quality.

Dr. Duncanson asked if the sand under the dredged debris was clean and if they would reach a clean bottom at some point with routine dredging. Mr. Cirillo said that would be a possibility and confirmed they did hit sand at some points in the river.

Ms. Fisher asked for the number of cubic yards removed. Mr. Cirillo said the goal was 4000 cubic yards and they calculated an approximate total of 3500 cubic yards.

Gordan Starr asked for an explanation on the difference between polymer and the geotextile bags. Mr. Cirillo explained the bags are giant textile bags for the debris and polymer is liquid that is injected into the pipe to separate the material from the solution. Mr. Starr asked if the bags can be reused. Mr. Cirillo confirmed they cannot be reused but the material can be used at the beach for erosion containment.

Dr. Duncanson added polymer is similar to what is used at water treatment plants and is standard technology.

Mr. Cirillo ended his presentation with a few updates on other dredge projects, including the Stage Harbor approach channel and the Mashpee approach channel. He said staging was an issue in Chatham. Mr. Cirillo said they were hoping for 30,000 cubic yards but dredged 18,500 cubic yards. He said they were able to clear the channel enough to bring the hopper dredge in. He said this was the second year of dredging in Mashpee and the volumes were half of the previous year, illustrating the benefit of maintenance dredging. Mr. Cirillo said surveys were completed for the Falmouth inlets as well as Allen Harbor and Wychmere Harbor in Harwich. He said they cannot start in Allen Harbor until May 1st or Wychmere until June 1st.

Dr. Duncanson asked if there were any updates on county funding for the dredge program. Mr. Cirillo said they submitted a detailed financial report and are waiting to see what they will receive.

Abigail Archer, Fisheries and Aquaculture Specialist at the Cape Cod Cooperative Extension, provided an update for the marine program.

Ms. Archer said they just finished the “Fundamentals for Shellfish Clamming” class that was held virtually. She said a poll of their thirty students indicated they took the class to learn about the tidal flat, not to start a shellfish farm. Ms. Archer said they are thinking about developing an educational lecture series with Connecticut Sea Grant and Rhode Island Sea Grant and they will be asking committee members for feedback on the type of classes that would be useful.

Ms. Archer said they finalized a report to the Town of Brewster on razor clam fisheries. She said Brewster reached out to them to help with research on the method of salting for razor clams as well as their commercial fishery. She said they worked for two seasons with the town and shellfish harvesters and concluded the salt used on the tidal flats dissipates rapidly and does not damage the razor clams.

Ms. Archer said they sent a report to the Division of Marine Fisheries (DMF) about the survival of northern surf clams and southern surf clams, two subspecies that are located on Cape Cod. She said they worked with seven shellfish farmers to grow both subspecies side by side, up to 1 ½ to 2 inches and that it is a potential climate change adaptation project. Ms. Archer said the northern surf clam had a high mortality rate in high temperatures and the southern surf clams were more resilient, so they recommend hatcheries use the southern species.

Ms. Archer said shellfish veterinary diseases continue to be an issue and they are looking for funding from National Sea Grant to bring on a post-doctoral researcher to focus on this topic. She said the researcher would work from WHOI but also work closely with the county marine program.

Ms. Archer said they are gearing up for another year of field work in Three Bays/Barnstable system. She said they will be looking at ocean acidification and the effects on shellfish growth and survival.

Photo Essay – Aquaculture & Acidification Project in Three Bays Barnstable

Ms. Archer concluded her update with information on the River Herring Network. She said the last two years they have held their annual meeting on Zoom but this year they held monthly webinars instead. She said the webinars included presentations by Brad Chase from DMF, UMass students regarding eDNA, and Eric Hutchins from NOAA. She said the February 15th Zoom Presentation by Brad Chase, MA Division of Marine Fisheries, Update on Diadromous Project Activities will be available on their website.

Shannon Hulst, Deputy Director of the Cape Cod Cooperative Extension, provided Coastal Processes Program and Floodplain Updates.

Ms. Hulst provided an update for Greg Berman, Coastal Processes Specialist at the Cape Cod Cooperative Extension. She said Mr. Berman has returned to in-person site visits and is back to the

pre-pandemic number of visits. Ms. Hulst said part of Mr. Berman's presentations include erosion rates and she shared his photos of erosion at Ballston Beach in Truro.

Ms. Hulst said Mr. Berman has been working on an erosion study with the Monomoy National Wildlife Refuge and the report will be provided by request.

Ms. Hulst reviewed CoastSnap, a project that allows citizens to take pictures and upload them to the Extension website for WHOI and Sea Grant to track for erosion. She said CoastSnap is currently in Sandwich and on Martha's Vineyard and that ten additional posts have been fabricated for the northeast region.

Ms. Hulst concluded with Mr. Berman's update, letting members know he recently became a certified FAA drone pilot and will help with any projects requiring a drone.

Next Ms. Hulst provided a floodplain update. She said she has been working with Mashpee and Wellfleet on floodplain bylaws. Ms. Hulst said she is doing Community Rating Systems (CRS) cycle visits with Brewster, Mashpee, Eastham, and Orleans for their recertifications. She said Dennis will be starting the onboarding process next week and Bourne is currently in year 3 or 4 of that same process.

Ms. Hulst said they are working on grant projects with local high schools. She said they have teachers from Falmouth and are currently looking for science and art teachers in Barnstable and Nauset to do a sea level rise visualization art project. Ms. Hulst said the projects will be completed by the students and posted in the respective towns provided they receive permission.

Ms. Hulst said they are also working on a project to identify underserved and underrepresented populations in the floodplain. She is working with a student from UMass and said they may be reaching out to each town for data.

Ms. Hulst concluded with an update on flood insurance. She said as of April 2022, the national flood insurance program has overhauled how they rate flood insurance. Ms. Hulst said it is the first change to the program in decades. She said some people might have lower rates with the change but other may see an increase. Ms. Hulst said she expects to receive a lot of questions and encouraged members to send people directly to her.

Cape Cod Conservation District staff provided an update on projects funded by the Cape Cod Water Resources Restoration Project (CCWRRP)

Deron Davis and Steve Spears from National Resources Conservation Service (NRCS) provided the update.

Mr. Davis said this past year the NRCS asked the Conservation District to update the original plan from 2006. He said Don Liptak, Rick DeVergilio, and Carl Gustafson met with each town to discuss priority projects and ended up with a 98 priority projects to meet the goals of the plan. Mr. Davis reviewed the goals, which include: to restore 1500 acres of salt marsh, improve fish passages for 4200 acres of spawning areas, and stormwater treatment of over 7300 acres of shellfish harvesting beds. He said they submitted a request for funding for FY22. Although they have not received the funding, he said they are expecting to receive it for 21 projects this year and the remainder over the next five years.

Mr. Davis shared a list of FY22 projects that Mr. Spear said will be included with the press release. Ms. Hulst said she will send the list to committee members if Mr. Davis provides her with a copy.

Stormwater Treatment Projects: Monks Park/Valley Bars in Bourne; Follins Pond Landing and Follins Pond Road in Dennis; Ramp at Mashpee Neck Road Adaptive Management (FY22 review of work completed in 2010) in Mashpee; Cove Road in Orleans; Coast Guard outfall, Pearl Street, Ryder, and Gosnold Street outfalls in Provincetown; Lieutenant Island Road – 7 Outfalls, Kenrick Ave@ Kellers Corner and Powers Landing in Wellfleet.

Fish Passage Projects: Long Pond and Upper Marston Mill/Middle Pond in Barnstable; Stony Brook North and South in Brewster; Rt 28 Culvert-Ryders Cove in Chatham; Cole Road and Great Pond in Eastham; Johns Pond in Mashpee.

Saltmarsh Restoration Projects: Freeman's Pond Adaptive Management (FY22 review of work completed in 2010) in Brewster; Jones Lane Restriction of Scorton Creek in Sandwich; Truro Center Road in Truro; Herring River in Wellfleet.

Mr. Davis reminded members that the NRCS funding covers 75% of the project costs and towns are responsible for 25% of the cost, including any additional design and administration expenses. He said they are in a strong position on the Cape because this region already has an approved plan. Mr. Davis said there are a lot of programs across the country that are still in the planning and design phase.

Dr. Muramoto asked for the total funding amount requested and asked how it was divided between technical assistance and construction. Mr. Davis said they should have those numbers in the next couple of weeks. He added design and management costs are 25% of the construction costs with 15% for design and 10% for project administration.

There were no additional questions or comments.

Report from Committee members on current coastal management issues affecting Cape Cod, followed by discussion by the Committee members

Nina Coleman provided an update for Barnstable. Ms. Coleman said they are still working on the projects discussed at the January meeting, including herring and water quality projects for the ponds and lakes. She said they hired Woods Hole Group for an alternative analysis of the parking lot at Sandy Neck Beach. Ms. Coleman said they are redoing the shoreline analysis and she has a lot of concerns about erosion at the beach.

Chris Miller provided an update for Brewster. Mr. Miller said they have many projects underway but no significant updates. He said they should have CZM updates at the next meeting.

Robert Duncanson provided an update Chatham. Dr. Duncanson said the expanded ENF was filed for a living shoreline project at Jack Knife Harbor Beach. He said it is a joint project with Chatham, Pleasant Bay Alliance, Center for Coastal Studies, and a few other groups. Dr. Duncanson said they have started the process for renewing their ten-year dredge permit and they are expanding it to include all of Chatham Harbor. He said they are not going to dredge the inlets but will keep a good navigational channel within the harbor. Dr. Duncanson said they filed the ENF for a new bulkhead project at the Chatham Fish Pier. He said they are in the permitting phase for the 90 Bridge Street project where they will relocate their shellfish upweller system. Dr. Duncanson said the Stage Harbor Coast Guard boathouse should be returning to Chatham soon and it will be converted into their shellfish upweller. He said they are in year two of a CZM project to look at underwater veins outside the Stage Harbor entrance channel to deflect the current and push the sand outside of the channel. He said the project involved permitting at local, state, and federal levels. Dr. Duncanson said they are doing an MVP action grant with other towns on the Cape and the Cape Cod Commission to be a part of the second round of the low-lying roads project.

Karen Johnson provided an update for Dennis. Ms. Johnson said they are currently applying for a few grants. She said they had a preliminary hearing for their appeal of the DEP Superseding Order for the Swan Pond River dredge project and the formal hearing will be in July.

Ashley Fisher provided an update for Mashpee. Ms. Fisher said in addition to the approach channel dredge project Mr. Cirillo mentioned in his dredge update, they also completed their 1916 channel at Popponesset Bay. She said they alerted boaters in that area of the dredge pipe. Ms. Fisher said the town was awarded \$150,000 from the Seaport Economic Council to pursue a state approved harbor management plan. She said they are working on the project with the Urban Harbor Institute at UMass Boston. Ms. Fisher said they are working on their MVP grant for Santuit Pond. She said they are working with consultants on stormwater issues and internal nutrient cycling issues within the pond. Ms. Fisher said they just hired a consultant for a few water quality projects and they have cyanobacteria outreach for all of their ponds.

Tim Famulare provided an update for Provincetown. Mr. Famulare said they are concluding the second phase of the intermunicipal shoreline management plan under a 2-year CZM grant with the towns of Truro, Wellfleet, and Eastham. He said they will be talking with the Center for Coastal Studies about the next phase. Mr. Famulare said they are looking for grants to develop regional staffing for the outer Cape to advance some of these projects. He said Provincetown is submitting a coastal resilience grant to move forward with their Ryder Street dune enhancement project. Mr. Famulare said the four outer Cape towns will be meeting on Thursday with Cape Cod National Seashore staff about the threat of the purple crab to salt marshes. He said one of the biggest threats is the West End salt marsh in Provincetown. Mr. Famulare said they are working with the Center for Coastal Studies and John Ramsey to prepare a conceptual engineering phase for coastal resilience work along Commercial Street as an MVP action grant.

Emily Beebe provided an update for Truro. Ms. Beebe said they are finishing the culvert replacement at East Harbor, also known as Pilgrim Lake. She said they are also working on the south part of town on the Eagle Neck Creek restoration to replace a 24-inch pipe under Old County Road with an 8 square foot box culvert for tidal restoration. She said they are about three-quarters of the way through the project. Ms. Beebe said Wellfleet and Truro conservation commissions met jointly last week to hear the Notice of Intent application by the Friends of the Herring River, Cape Cod National Seashore, and the Town of Wellfleet for the Herring River salt marsh ecological restoration.

Karl von Hone provided an update for Yarmouth. Mr. von Hone said they are finishing the renewal of the ten-year comprehensive dredging and beach nourishment project and they are working on a few grant projects for culvert replacements. He said they finished the Parkers River/Rt 28 Bridge project and are heading into the post-construction monitoring phase. Mr. von Hone said they are working with MassDOT on the Rt 28/Bass River bridge replacement. He said at the northern end of the river they are looking at another restoration project for the upper reaches of Bass River to Mill Pond with reclamation and restoration of wetlands and potentially a culvert. Mr. von Hone said they are working with the Friends of Bass River on the project and they are looking to move forward with a few MVP grants. Mr. von Hone concluded his update by announcing his retirement at the end of May.

Dr. Jo Ann Muramoto provided an update for MassBays. Dr. Muramoto said the risk categories for the cyanobacteria monitoring program were revised based on feedback from the Cape and Islands Health Agency Coalition that includes guidelines from the Mass Department of Public Health and the EPA QAPP. She said there will be three levels of risk that correspond to low, medium, and high. Dr.

Muramoto said the county will analyze cyanobacteria toxins when moderate or high-risk levels are found in samples, and this will help avoid a time lag with testing. She said the changes will be posted on the APCC website.

Dr. Muramoto said they will be updating the State of the Waters Cape Cod project that grades coastal and pond waters and public water supplies. She said she will be reaching out the towns for updated coastal water data from 2017-2021, pond water from 2017 forward for a minimum of three years, and public water based on consumer confidence reports from 2021, which will include PFAS regulations this year.

Dr. Muramoto said volunteer herring counts are under way with pre-pandemic groups returning along with a few new groups to count. She said this year the DMF asked Cape Cod groups to consider counting until June 15th rather than the usual June 1st due to evidence that some Cape Cod runs might be going past June 1st.

Dr. Muramoto said at the last BCCRS meeting Dr. Duncanson asked if the operations and maintenance (O&M) requirement for the Cape Cod Water Resources Restoration project had been reviewed since the NRCS required a 50-year O&M agreement. She said they asked towns for their thoughts on a good timeframe for future O&M agreements and reviewed responses from eleven towns, with most indicating challenges with the 50-year commitment.

Mr. Davis said he can provide background on the O&M agreement discussion at a future meeting.

Dr. Muramoto said the details of her update are in the [MassBays Regional Coordinator's Report](#).

New Business

There was no new business.

Next Meeting

The next meeting date was not announced.

Adjourn

Upon a motion by Karen Johnson, seconded by Karl von Hone, the meeting adjourned at ?? with a roll call vote.

Nina Coleman	Yes
Stephanie Fitch	name not called
Chris Miller	Yes
Dr. Duncanson	Yes
Karen Johnson	Yes
Shana Brogan	left before member reports
Ashley Fisher	name not called

Tim Famulare	Yes
Emily Beebe	Yes
Karl von Hone	Yes

List of Materials Used/Presented

- BC County Dredge Presentation
 - Cape Cod Cooperative Extension Coastal Processes and Floodplain Updates
 - Cape Cod Water Resources Restoration Project Presentation
 - February 15th Zoom Presentation by Brad Chase, MA Division of Marine Fisheries, Update on Diadromous Project Activities
 - Photo Essay – Aquaculture & Acidification Project in Three Bays Barnstable
 - MassBays Update
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