

Minutes for November 29, 2022

RSC Representatives present: Anne Slugg, Chair (Sudbury), Emma Lord (NPS), Dan Cook (Carlisle), Sam Corbin (SVT), Christine Dugan (Lincoln-Alt), Bill Fadden (Framingham-Alt), Alison Field-Juma (OARS), Ralph Hammond (Bedford), Carlene Hempel (Concord), Marlies Henderson (Billerica), Tom Sciacca (Wayland), Eric Simms (Wayland-Alt)

RSC Representatives absent: Ron Chick (Framingham), Trek Reef (Billerica-Alt), Frank Richichi (Bedford-Alt), Linh Phu (USFWS)

Guests: Jackie Dias (NPS), Melissa Hansen (Mass Audubon), Laura Mattei (SVT), Kristin O'Brien (SVT), Robin Stuart (Mass Audubon), Ben Wetherill (OARS)

7:02 pm Ms. Lord opened the meeting saying that representatives from RSC's partner organizations would speak about the work they carried out over the last 12 months with funding from RSC grants. Ms. Slugg said that this year's RFP from partners will be sent out in early January. The Council will vote on funding those proposals at the February meeting.

7:04 pm **Partner Grant Presentations**

Ms. O'Brien introduced herself as the Conservation Restriction Manager for SVT and as the CISMA Coordinator. She said that CISMA's ~\$7,500 in grant money paid for regular maintenance for CISMA; assistance for knotweed management at the Ashland Town Forest; new Weed Warrior programs in Maynard, Lincoln, Littleton, and Concord and Ms. Mattei's time advising Marlboro on invasives management. SVT awarded a small grant of \$3,000 to Marlboro for control of invasive bittersweet near two ponds at Ghiloni Park and for educational signage. SVT awarded \$2,300 to the Concord Land Conservation Trust for a free workshop at Brooks-Hudson Meadow along the Sudbury River in Concord. Educational materials created for that workshop will be shared with other organizations. A shared project between the Friends of Saxonville and local Framingham schools to remove invasives and to plant native plants on the Carol Getchell Trail along the Sudbury River was awarded \$1,500. Unspent RSC funds totaling were allocated for the design of a Weed Warrior logo and for Ms. O'Brien's time coordinating CISMA activities. Ms. O'Brien noted that SVT transferred its Weed Warrior program to a newly created CISMA Weed Warrior subcommittee.

7:13 pm Ms. Mattei is the Director of Stewardship for SVT. She said that RSC funding was used for SVT staff to assist the Metrowest Conservation Alliance (MWCA) with its monthly newsletters and to host meetings and workshops for the Municipal Vulnerability Preparedness Program, for a Working Lands Issues and Challenges discussion, and for the Native Pollinator Initiative. Over the past 12 months SVT carried out stewardship activities at four SuAsCo properties. It updated the Management Plan and refreshed signage at the Ralph Hill Conservation Area in Billerica. For the Greenways Conservation Area in Wayland, SVT updated the Habitat Management Plan, employed AmeriCorps members to help revegetate the knoll, and installed an interpretive panel. SVT continued control measures to remove glossy buckthorn and maintain an open habitat for a rare violet at the Elliott Concord River Preserve in Carlisle. SVT followed up herbicide treatments at Wolbach Farm in Sudbury. It also found a rare plant on that property. Ms. Mattei spoke about 6 recent SVT land protection efforts on properties comprising 152 acres located in Littleton, Marlborough, Northborough, Southborough, and Acton. She said that joint SVT-MWCA working group discussions and an SVT member survey resulted

in a new set of priorities for SVT's SuAsCo Regional Prioritization Plan. Those new priorities were listed as: Natural Services, Habitat for Biodiversity, Community Conservation and Farmland.

Mr. Sciacca said that he would like to see RSC grant funding go more towards projects relating specifically to the Wild and Scenic River. He preferred that RSC funding also go to important SVT projects that were more difficult to fund, such as planning overhead. Ms. Mattei said that SVT had used RSC funding to protect streams and waters. Ms. Field-Juma said that OARS thinks a lot about the health of the small streams, tributaries, and headwaters of rivers and they are critical to thinking about SVT's efforts. Ms. Slugg said that she appreciated Mr. Sciacca's input. She recognized that other Council members might have different opinions and thought the Council should take up this topic at a future meeting.

7:34 pm Ms. Stuart and Ms. Hansen spoke about Mass Audubon's Riverschool work over the past year. They worked with 64 fifth-graders at Happy Hollow School in Wayland, with 175 sixth-graders at Curtis Middle School in Sudbury, and with an after-school program at Cameron Middle School in Framingham. They reworked the Riverschools model to fit an afterschool program where they would have students for a shorter time, but over the entire school year. At Happy Hollow the Riverschools staff averaged about 7 hours per student. At Curtis they averaged 14 hours per student with a teacher who was teaching the curriculum for the first time, and about 5 hours per student with the teacher who had taught the curriculum before. The Riverschool staff watched the student presentations and accompanied the classes to field trips on the river. The Riverschool staff spent time with the classroom teachers supporting them in curriculum building, curriculum integration and professional development around watershed education and climate education, and in supporting student-led action projects within their classrooms. That averaged about 8-10 hours with the teachers. Classroom work with those teachers was about 20 hours per student. Students spent between 30-40 hours throughout the school year on Riverschool activities. Ms. Hansen spoke about the afterschool program in Framingham. Riverschools staff had over 40 visits to the school. They were able to do more hands-on activities and experiments than they were during the school day. The students had action projects. Mass Audubon recently hired a new full-time Riverschool/Watershed Educator to help coordinate these programs and to offer professional development to the teachers. Riverschools has also begun working with third and fourth graders at the Fayerweather Street School in Cambridge in an effort to reach more students in different areas. A meeting has been scheduled to discuss bringing Riverschools to Billerica's afterschool program. Mass Audubon has started "Hoops and Homework", an after school program in two housing complexes located in two environmental justice neighborhoods in Framingham.

7:59 pm Ms. Field-Juma said that the current year's RSC funding for OARS has been used for science and policy work, the purchase of some water quality monitoring equipment, advocacy for NPDES permits, and includes the Community Grant for updating the Sudbury and Assabet river recreation maps.

Ben Wetherill, OARS' Water Quality Scientist, spoke about OARS's 2022 sampling season. That work included 16 sampling events during which 222 samples were collected at 22 sites. It involved 359 volunteer hours and 3,400 volunteer miles driven. OARS sampled for water quality, monitored for bacteria and river flow measurements, and installed a dissolved oxygen (DO) logger in Billerica to measure DO levels in the impounded area.

Mr. Wetherill partially attributed declining phosphorus levels in the Assabet to new permitting requirements for wastewater treatment plants. The Assabet continues to see a steady increase in pH levels, reflecting a reduction in phosphorus and an increase in DO. OARS has charted biomass levels in the Assabet impoundments and in Hudson since 2005. Biomass has not been reduced in the impoundments. A biomass increase in Hudson indicates that even though phosphorus has been reduced in the water column, it is still in the sediments.

Mr. Wetherill said that phosphorus levels in the rivers are pretty low throughout the watershed, with the exception of Hop Brook in Sudbury. OARS has done a study with the Hop Brook Protection Association (HBPA). The phosphorus reading at Hop Brook is .1 or higher milligrams per liter where the target is .05 or lower. OARS thinks this is due to sediments in the ponds at Hop Brook. A nearby wastewater treatment plant might be the original source of the high levels of phosphorus, although current discharges are very low. A spike in phosphorus levels was found lower in the brook. The HBPA is applying for funding for a watershed-based plan that would involve more rigorous data analysis.

Since 2019 OARS has been checking on bacteria monitoring sites around the watershed. Maynard, Ashland, and Lowell have had consistently high and concerning levels of bacteria. There are also consistently low levels found in some sections of the WSR. Sites in Bedford and Billerica, in Wayland next to Route 20, and Little Farms Road near Route 27 are some of the cleanest sites. Some are close to the limit where swimming would be allowed. OARS sometimes moves the sampling sites from consistently clean areas to other places in the river to learn more about those locations.

OARS has been finding chloride in the water. Mr. Wetherill explained that electrical conductance of the water in the rivers indicates the saltiness of the water, and that conductivity and chloride levels are closely correlated. Conductivity can be used to estimate chloride and salt levels in the rivers. He said that our rivers are often above the EPA maximum for chloride and that level is increasing steadily. This will be a new focus for OARS. A concerning downward trend in DO has been shown in the lower Sudbury River since 2015. It is an extremely low level for aquatic life. Mr. Wetherill thought the phosphorus from Hop Brook might be playing a role. He asked if any Council members had questions.

8:16 pm Mr. Cook said that his company tests water around the state. He attributed rising levels of salt in the water to runoff. He asked what impacts OARS sees on aquatic life due to the impacts of high chlorides. Mr. Wetherill said that it is anecdotal but that River Meadow Brook in Lowell looks worse than eutrophic. It has unhealthy levels of algae. Ms. Field-Juma said that OARS is part of a collaboration among several watershed groups. They are comparing chloride conductivity measurements in several watersheds in Eastern Massachusetts. Mr. Sciacca said that he had watched chloride levels in the Happy Hollow wells increase radically over 20 years. Mr. Wetherill said that it will take some political will to address the problems raised by Mr. Cook and Mr. Sciacca. Ms. Corbin asked if OARS has been looking into cyanobacteria. Mr. Wetherill said that so far we have not had many instances of cyanobacteria blooms but that OARS is in contact with organizations like the Charles River Watershed Association which do study them. Ms. Hempel asked to what extent this data is a snapshot of the readings and if they could significantly over a year or a season. Mr. Wetherill said that these single points are affected by precipitation events around the time of the sampling. OARS collects a lot of data before it notes trends. The data presented to the Council is just the summer data that are snapshots of a single point in the month. You must look at trends over many years to confirm any changes.

8:34 pm Ms. Slugg thanked OARS for its presentation and asked for a discussion of the October Minutes. Ms. Henderson motioned that they be accepted as circulated, Mr. Sciacca seconded, and the motion passed 11-0.

Ms. Lord reminded the Council that the PWSR's Lunch Speaker Series about Green Infrastructure would be held as a Zoom meeting on November 30th and that everyone was invited to attend. She said that the Biennial gathering of PWSR partners gathering would be held on the Wild and Scenic Wekiva River in Florida from Dec. 7-9. Ms. Lord and Mr. Chick will be attending on behalf of the SuAsCo.

Ms. Slugg said that the Council's next meeting would be held on January 31st. Budget decisions will be made at the February meeting. She thought that the Council might want to hold an interim meeting before January 31st to more fully discuss any potential internal or community projects, or thoughts about working with our partner organizations.

8:44 pm Mr. Sciacca said that the Wayland Conservation Commission would be holding a hearing on November 30th to discuss the Cascade housing development along Pine Brook at 113-115 Boston Post Road. Pine Brook is pristine native brook trout habitat. Ms. Field-Juma read a description which said that this was a 60 unit affordable housing development with a wastewater treatment facility. It is within the 100 foot buffer zone of a bordering vegetated wetland, 200 foot buffer zone, and the riverfront area and bordering land are subject to flooding.

Ms. Field-Juma said that many communities are looking at connecting to MWRA for their water supply. A study for North and South communities has been released. The Metrowest area is still being studied. She suggested that we take up this topic in a future meeting.

8:57 pm Ms. Slugg motioned to adjourn, Ms. Field-Juma seconded. The motion passed 11-0.

Minutes respectfully submitted by Christine Dugan