

10/1/2022 Outstanding Questions MVC Safe Harbor Marinas DRI-258-M2

Alex Elvin forwarded the list of outstanding questions below on 9/7/2022 after requesting a complete list of questions still needing answers or clarification.

QUESTIONS:

- How would there be fewer boats in Lagoon Pond if the marina is expanding its capacity? There will be 6 fewer boats in the lagoon on a daily basis. We are removing 10 boats from permanent slips and the new rack storage will result in 4 more valet boats in the water per day on average, according to our data history.
 - 1. We currently have 47 boats in the water in slips every single day, From roughly May 1 to October 31st, That's
 - We currently have 6 racked boats being launched into the water each day from June 1 to August 31st-
 - 3. That is 53 boats in lagoon pond each day
 - 4. Proposal will remove 10 slip boats from the lagoon every day, reducing the boats in the water from 53 to 43.
 - 5. Proposal will have 4 additional racked boats launched into the lagoon each day, resulting in 47 boats in the water each day.
 - 6. 53 Current to 47 proposed is a reduction in boats in the lagoon each day.

To think about this slightly differently, racked boats do not sit in the water, only in the water during use, and time used will be mostly outside the lagoon. I think it's best to calculate the total amount of days a boat sits in the water. I will us a few assumptions: 180 day season, 47 slip boats, 50 rack boats currently, 90 proposed, 3.74 rack boats per day, 3 additional boats per day with new racks, 1 hr. time in the lagoon (launch, transit out, back in, Haul)

- 47 boats sit in the water for a total of 8460 full days.
- 3.74 Racked boats in the water a day for a total time of roughly 1 hr. That's an additional 28 Days in the water, for a total of 8488 Days currently in the water.
- Proposal has 37 boats sit in the water for 6660 full days
- The Proposed racks (total) will have 6.74 boats per day, at an average use time of 1 hr., equals 50.55 days
- This equals 6116 Days in the water or a reduction of 2343 days of boats in the water.
- 2. What is the maximum height of boats (including masts) that will be permitted to use the marina? There is no limitation on the height of a vessel at our marina. Rack stored boats, however, cannot exceed 14 feet in overall height.

- Racked boats are limited to a boat height of 14' from the keel to the highest overall point. Any taller or they would not fit in the rack system. As far as slips there is no restriction other than if the boat would fit in the marina (width, length, draft). Historically we have steered away from sailboats due to the complexity of the rigging and shortage of skilled labor in that department. We normally send sailboats to our Edgartown Facility, where we can better handle them. We currently store no sailboats at the facility, however we do service 2 or 3 which have outboards and fast drop masts that require no rigger.
- 3. Is there any chain of custody documentation for the shrink wrap recycling? No. We do, however, process shrink wrap separately from all other refuse.
 - 1. Since Shrink wrap is not a hazardous material and we have not kept a chain of custody on it. The documentation provided in the previous responses has the details of the program. But to clarify further, we do process it [Shrink Wrap] separately than all our other trash. The used wrap needs to be clean and free of non-shrink wrap debris, it is then balled up, tied and stored in a separate dumpster until it's full or we are done removing wrap from boats. That dumpster is then brought off island, separately from other waste, by Bruno's Recycling and hauled to EL Harvey who administers the program. EL Harvey weighs it in and stores the wrap in a larger holding area, until they have enough to facilitate a delivery to a certified DEP recycling center. EL Harvey could not note to which one, as it's based on the pricing and timing.
- 4. Wetland delineation needs to be shown on a site plan. See Plan filed herewith.
 1. Complete and noted on new site plan
- 5. What are the plans for Building 7 if Jeffrey DuBard is not able to relocate it? SHM will work with other third parties, the town, or other interests to take the buildings, or we will dismantle it for later use.
- 6. Specific Clean Marina Certifications requirements. Please see attached letter from Association of Marina Industries dated September 21, 2022 from Eric Kretch, Clean and Resilient Marina Coordinator.
- 7. Drainage Report/plan for entire site, including the weight of racks and soil compression, etc. –Drainage plan included. Current and Proposed site plan Included
 - 1. See statement from Vineyard Land regarding soil compaction. Increasing our buffer from the wetland and incorporating a vegetative barrier and swale to increase drainage. Equipment will not be operating within this area.

8. Statement from DMF about the specific reason for the shellfish closures. In a zoom meeting on September 26th with Matt Camisa, Senior Marine Fisheries Biologist and Shellfish Classification Supervisor and Simone Wright, Shellfish Area Biologist both of DMF they indicated that the closure was not due to the classification of our marina as seasonal or year round, but that it was due to water quality testing. In fact in Simone's 2021 report the marina was classified as seasonal. We requested and they agreed to provide copies of the testing results and the marina classification (as seasonal) report and will forward the same upon receipt.

Other Outstanding Questions Heard at Public Hearing

- 1. Complete Site Drainage.
 - 1. Reference complete updated site plan attached, added vegetative swales and rain gardens to handle building roof run off
- 2. Complete Bike path easement to lagoon pond Rd.
 - 1. See attached updated site plan for complete access
- 3. Water Quality Improvements?
 - Chris Scott is currently sitting on the towns Water Resource Committee (WRC) which is tasked with developing the towns Comprehensive Wastewater Management plan (CWMP), and sits on the towns Sewer Advisory Board. The WRC reviews and recommends to the select board all things that protect the towns water resources, both groundwater and surface, including storm water, septic systems, run off into the ponds and harbor.
 - 2. We will also add rain gardens and swales to significantly reduce site run off. Safe harbor will appoint a person on local staff to be involved with additional Town agencies on ways to improve water quality issues in the lagoon.
- 4. Building on/Operating on Wetlands abutting wetlands. There are no buildings or marina operations proposed in any wetlands.
 - The existing buildings and associated slabs and footings at the northern edge of the site are, currently located in the pre-disturbed buffer area adjacent to and a few feet from bass creek. The proposal will remove structures from within the buffer zone and increase the existing buffer to nearly 30ft, allowing for added vegetative swale and erosion control garden along the edge to firm it up and eliminate run off into bass creek
- 5. Track ongoing usage- Tracking is in place
 - All Racked boats must request a launch through dedicated rack operation software, which tracks all requests and hauls, timing, operators and requests. It allows us to analyze data and ensure more efficient operations. The program also allows us to greatly reduce the amount of time boats sit idle in the water.
- 6. Blocking or hindering Mud Creek Bridge access. **The bridge is town owned and maintained and outside our authorized area.**
 - 1. Noted and outlined in our submitted chapter 91 license, the bridge, which is town owned, maintained and built, is outside our authorization area for the marina. We do

not have authority to build anything outside that area, therefore, we could not and would not be able to hinder that access in anyway.

- 7. Clean Marina Checklist Marina Checklist attached
 - 1. See attached checklist
- 8. Wind load for racks
 - 1. The new racks are rated at 150 MPH in a load D area, with a full load, email from contractor attached. Plans will be stamped by an engineer after deposits are submitted.
- 9. Parking
 - 1. All plans to date have included spaces for 36 parking spaces. Our Current parking capacity is 36 spaces which we think is necessary to accommodate our future needs
- **10.** Classification of Marina from seasonal to year round.
 - In a zoom meeting on September 26th with Matt Camisa, Senior Marine Fisheries Biologist and Shellfish Classification Supervisor, and Simone Wright, Shellfish Area Biologist both of DMF it was discovered that Ms. Wright had classified the marina as seasonal in her 2021 report, a condition that does not cause the closure of the shellfish beds nearby. Statement and documentation attached



Educating & Connecting Marina Professionals

Design and Siting Considerations for New and Expanding Marinas	Status	Yes	No	N/A	Evidence			
Marina development and expansion projects along coastal or inland shorelines, including dredging, will require a joint permit from the <u>U.S. Army Corps</u> (USACE) and a state natural resources or environmental management agency. These agencies have regulatory responsibilities to ensure compliance with federal and state laws.								
1. Do you have the proper federal and state and/or local permits for all your current marina construction, erosion control, and dredging?	М							
					Provide proof of recent permits.			
2. Do you pledge to obtain those proper permits (federal, state, and local) for all your future marina construction, erosion control, and dredging?	М							
States are typically trustees of the bottomlands and waters of the state and have perpetual duty to manage these resources for the benefit of its citizens. A permit is required from the State for altering the bottomlands, such as dredging, construction of a marina, or shore protection, and a bottomlands conveyance (lease, deed, or agreement) is required for certain occupations of a state's public trust bottomlands. The conveyance may require an annual fee to the agency and will contain conditions for the use and occupancy of the subject bottomlands. Consult your state Submerged Lands Program for additional information.								
3. If required, do you have a valid bottomlands lease with your respective state?	М							
If YES, please provide evidence when submitting this checklist. If NO, please explain why in the notes section below.					Provide bottomlands lease document.			
4. Have you checked federal and state rules regarding wetlands and considered steps to avoid, minimize, or mitigate their disturbance?	R							
5. Does your marina own undeveloped natural habitat areas? If the answer is NO, please proceed to question #6.	R							
5a. If you answered YES to #5, have you placed or explored the protection of this land in a conservation trust/easement?	R							
6. Do you pledge to have new facilities be located on brownfields or previously disturbed sites?	R							
Chromated copper arsenate (CCA) – treated lumber or creosote-treated lumbe should not be used in structures in aquatic resources. Alternative asphalt coatin volatile organic compound chemicals into water runoff.	r or other pe ngs do not c	etroleum-l ontain co	based si al tars, v	ubstances which lead	and asphalt ch harmful			
7. Do you pledge to use environmentally neutral materials and avoid using exotic timbers or wood treated with CCA or creosote?	R							
Design & Siting BMP Comments and Notes:								

Marina Maintenance, Facilities, and Habitat	Status	Yes	No	N/A	Evidence
8. Dry-rack storage provides various environmental benefits compared to adding wet slips. Do you provide dry-rack or covered storage with in-and-out service? If the answer is NO, then check N/A for questions 8a through 8c.	R				
8a. Do you control stormwater runoff from dry-rack areas? Please share how in the notes section below.	R				
8b. Do you keep your dry-rack forklifts maintained to prevent grease, oil, or gas from dripping onto staging areas or into the water?	R				
8c. Do you have provisions in place to manage accidental spills and absorbent booms to collect any grease or oil in the dry-rack launching and retrieval area?	R				
9. Do you use best management practices and limit the number of covered wet slips to reduce shaded areas of water?	R				
10. Does your marina own any upland property? If the answer is NO, then mark N/A for 10a.	R				
10a. Do you use or pledge to use upland property to locate service operations, parking, waste storage facilities, and boat storage away from water when feasible to allow for proper management of stormwater runoff?	R				
11. Do you practice water conservation at your facility (e.g., use low-flow toilets and showerheads, maintain and fix faucet or hose leaks on the dock, install rain gardens or other low impact development practices)?	R				Extra credit: Provide photos of water conservation practices.
12. If not already installed, do you pledge to implement water conservation practices when a renovation is undertaken?	R				
13. Do your landscaping practices promote water conservation (e.g., water only "thirsty" plants, water deeply and infrequently, place mulch around plants, group plants with similar water needs together)?	R				
14. Do you adhere to federal and state applicator licensing requirements for the use of herbicides or pesticides on a water surface, including wetlands? <i>Additional Resources</i> : <u>federal applicator licensing requirements</u>	М				Provide applicator license number and/or photo of certificate.
15. Do you adopt integrated pest management practices (e.g., select native plants, use pesticides as a last resort, foster natural predators, etc.)?	R				
Marina Maintenance, Facilities, and Habitat BMP Comments and	Notes:				

Stormwater Management	Status	Yes	No	N/A	Evidence
16. Have you obtained a stormwater permit if required for your facility? Follow the link below to determine if your state is authorized to administer the NPDES stormwater permitting program.	М				Provide copy of permit.
Additional Resources: EPA Construction and Industrial Stormwater Programs and Industrial Activities Fact Sheets and Guidance (see Sector Q and R)					
17. Do you have a stormwater pollution prevention plan (SWPPP)?	М				
Additional Resource: Example of a <u>Stormwater Pollution</u> <u>Prevention Plan</u> with a surface water flow map					Provide copy of SWPPP.
18. Do you stencil or label storm drains "No Dumping" and indicate that the drain empties to the waterway?	R				
BMP example: Photo of storm drain					Extra credit: Provide photo.
19. Do you have and maintain stormwater management	R				
bioretention and infiltration areas, retention and extended detention basins, constructed stormwater wetlands, sand filters, grassed swales?					Extra credit: Provide photos or video of stormwater mgmt. structures.
Additional Resources: Clean Marina Stormwater Toolkit					
20. Do you pledge upon any future renovations that your facility will work to collect, infiltrate, and/or treat stormwater runoff using structures such as rain barrels, rain gardens, infiltration areas, sand filters, and constructed stormwater wetlands?	R				
Additional Resource: <u>Stormwater Runoff Best Management</u> <u>Practices for Marinas: A Guide for Operators</u> (New York Sea Grant)					
21. Do you practice "good housekeeping" by regularly cleaning your facility (e.g., paved surfaces, work areas, and boat wash pads) to remove pollutants?	М				Provide photos.
22. Do you maintain and develop/cultivate vegetated areas by	R				
position downspouts to drain to vegetated areas, and use grassland swales for stormwater infiltration, erosion control, and to provide wildlife habitat?					Extra credit: Provide photo(s).
23. Do you minimize the amount of impervious surface by only paving necessary areas?	R				
24. Do you avoid the use of oil-based sealants on paved areas, which pollute runoff waters, and use alternative asphalt sealants that are water-based?	R				
Stormwater Management BMP Comments and Notes:					

Vessel Maintenance and Repair

Best management practices can apply to any services performed at the marina by facility staff or by onsite lessees or outside contractors. A Clean & Resilient Marina must at a minimum tie best management practices into facility staff training, lease agreements, and contract agreements.

Please respond to the following questions for vessel maintenance and repair services performed by the marina staff and/or service tenants and contractors. If your marina uses service tenants or sub-contractors or has limited services, please add comments in the notes section to discuss with your Clean & Resilient Marina specialist.

Provide evidence of your facility's maintenance and standard operating procedures as indicated in the evidence column for all applicable questions (Q25, Q26, Q29-Q32).

Vessel Maintenance and Repair	Status	Yes	No	N/A	Evidence
25. Do your best management practices (BMPs) for vessel maintenance and repair enclose, cover, or contain blasting and sanding activities to the extent practical to prevent abrasives, dust, and paint chips, and equipment from reaching storm sewers or receiving waters?	М				
Additional Resources: • EPA Stormwater BMP for Sector Q					
26. Do your BMPs for vessel maintenance and repair restrict spray painting or spraying of fiberglass or other chemicals unless it is inside a designated shop or under a tarp?	М				
27. Do your BMPs for vessel maintenance and repair recommend anti-fouling paints with minimal environmental impacts?	R				
28. Do your BMPs for vessel maintenance and repair include procedures for proper and environmentally sensitive engine repair and maintenance?	R				
<i>BMP example</i> : Use dry pre-cleaning methods, such as wire brushing; avoid unnecessary parts cleaning; adopt alternatives to solvent-based parts washers; use water-based, non-VOC cleaners.					
29. Do your BMPs for vessel maintenance and repair include regular collection and disposal of maintenance debris?	М				
30. Do your BMPs for vessel maintenance and repair include regular inspection and repair of fuel transfer equipment (i.e., pump, hose, and nozzle)?	М				
31. Do your BMPs for vessel maintenance and repair restrict the power washing of boats to a designated area that where debris can be contained and collected?	М				
 Additional Resources: Mobile Wash Station or Drive-in Boatwash A Guide to Selecting Pressure Washing Management Practices and Technologies 					
32. For marinas performing winterization, do you have a BMP in place to prevent the release of antifreeze (any type) into the environment?	М				
33. Do you collect and recycle antifreeze? <i>Additional Resources</i> : <u>How to Recycle Antifreeze</u> and <u>Recycling Location Map</u>	R				

34. For marinas with boat storage capacity, do you encourage boat owners to keep their bilges clean with contract language, rules, or with educational materials (e.g., boater tip sheet)?	R				Extra credit : Provide documentation of practice.						
Vessel Maintenance and Repair BMP Comments and Notes:											
Petroleum and Hazardous Waste Control	Status	Yes	No	N/A	Evidence						
35. Do you have any fuel (gas/diesel) stored (aboveground and/or underground tanks) or dispensed (fuel dock – operated or leased) at your marina? If YES to one of the choices listed, please move to question 36. If NO, then fill in N/A beginning at question 36 up to and including question 39.											
36. Do you have an Aboveground Storage Tank (AST)? If YES, move to question 36a. If NO, then skip to question 37 .											
36a. Does the marina meet federal requirements to operate a	М										
flammable or combustible liquids?					Provide copy of SPCC.						
 Additional Resources: Find SPCC Regulation 40 CFR 112, A Facility Owner/Operator's Guide to Oil Pollution Prevention in the BMP Guidebook Appendix. Contact your state regulatory agency for state specific requirements. 											
36b. Does your AST fuel system have a double walled configuration or a secondary containment system (or both) to prevent accidental fuel releases?	м				Provide photo.						
36c. Does your AST have appropriate barriers (bollards or	М										
guard posts) to protect tanks from accidental damage?					Provide photo.						
36d. Does your AST dispensing system (fuel pumps) have appropriate barriers to protect from accidental damage?	М										
36e. Do you have proper labeling and signage at the dispensing location?	М										
Additional Resources: NERA 303 Eiro Protoction Standards for					Provide photo.						
Marinas and Boatyards.											
37. Do have an Underground Storage Tanks (UST)? If YES, move to question 37a. If NO, then move to question 38.											
37a. Do you have appropriate barriers, labeling and signage	М										
					Provide photo.						
37b. Does the marina meet UST monitoring and registration requirements issued by the EPA UST regulations?	М				Provide conv of registration and a						
Additional Resources: Check your state fire services or storage tank division for additional requirements					recent monitoring/ inspection report.						
37c. If you operate a fuel dock (diesel and/or gas) with a UST, have you completed the necessary operator training, and do	М										

you keep records of your trainings or licenses?			Provide a copy of your safety and compliance rules and any training
Additional Resource: EPA UST Regulations			compliance rules and any training.
38. Do you dispense or allow a sublease to dispense fuel at the marina? If YES, move to question 38a. If NO, please move to question 39.			
38a. At your fuel dock, whether owned and operated or leased, have you removed all fuel nozzle-holding clips and installed automatic backpressure shutoff nozzles on fuel pump discharge hoses?	М		Provide a photo.
38b. If the marina leases out fuel docks, have you educated the tenant in the lease agreement or other formal communication about the fuel dock operator training required and secondary containment requirements?	Μ		Provide educational document shared with tenant.
39. Do you have inspection records indicating compliance with petroleum storage requirements?	Μ		Provide recent inspection record.
40.Do you have a Spill Prevention, Control and Countermeasure Plan (SPCC)?	М		Provide copy of SPCC plan.
 Additional Resources: <u>Spill Prevention, Control and Countermeasure (SPCC)</u> <u>Guide for Marinas and Boat Owners</u> <u>Sample SPCC plan</u> 			
40a. Have the training and inspection provisions of the SPCC plan been implemented?	Μ		Provide copy of training and inspection process and records.
 41. If applicable, have you e-filed Tier II reporting with the appropriate emergency management authorities for all hazardous materials including petroleum and wastes? Additional Resources: <u>State Tier II Reporting Requirements</u> <u>SARA Title III Program (Emergency Planning and Community Right-to-Know Act)</u> 	Μ		If applicable, provide Tier II forms.
42. Are your Safety Data Sheets (SDS) required by the Occupational Safety and Health Act (OSHA) maintained and readily accessible to all personnel? Additional Resource: <u>OSHA Brief: Safety Data Sheets</u>	М		Provide documentation of maintenance and accessibility of SDS. Provide photo of SDS binder.
43. Have you posted and included in your rules and boater correspondence the U.S. Coast Guard National Response Center phone number, (800) 424-8802, to allow for the proper notification of a spill?	М		Provide a copy of your rules or boater correspondence.
44. Do you maintain oil spill response equipment to contain a potential spill?	М		Provide photo.
45. Do you report spills to your appropriate state agency, and have you incorporated this step into your protocol?	R		
Additional Resources: Example of <u>release notifications</u> and <u>release calculations</u>			

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46. Have you consulted with a fire and safety professional or local fire department to determine the correct type and number of fire extinguishers for your facility?	R				ו	
47. Do you have an emergency response plan and is it readily accessible to trained staff?	М]	
					P p	rovide copy of emergency response lan.
48. Are spill kits clearly labeled and stored in readily accessible locations such as the fuel dock, launch, maintenance area, and drv-rack areas?	М]	rovide photo
Petroleum & Hazardous Waste Control BMP Comme	nts and	Notes	:			
Sewage and Gray Water Management	S	tatus	Yes	No	N/A	A Evidence
		•			1.01	
49. Do you prohibit the discharge of sewage in your marina?		М				Provide copy of rules.
50. Do you encourage compliance by including information about	ıt	R				
Contracts for slips, rentals, transients, and live-aboards?	in					Extra Credit: Provide contract
 Additional Resources: Vessel Sewage and Marine Sanitation Devices Tip Sheet EPA Marine Sanitation Devices 						language.
51. Does facility own and operate a pump-out system or have ar agreement with a nearby facility to accept the waste?	1	R				
 If YES to either of the options above, please move to question 5 If NO, please mark N/A for questions 51a through 51d through question 51d. Please provide any comments in the notes section. Additional Resources: <u>Clean Vessel Act</u> – funding available for public marinas to construct, renovate, operate, and maintain pump-out station and waste reception facilities. 	1a. '					
51a. If you own and operate a pump-out facility, do you dispose	of	М				
waste in a manner that meets EPA and U.S. Coast Guard regulations?						Provide a photo or video of your pump-out system.
51b. Do you have a regular maintenance schedule and log to ke the system clean and in-service?	ер	R				
51c. Do you have trained marina staff perform all pump-out operations for the boater?		R				Provide the facility's rules for
						pump-out operations.
51d. If you allow boaters to operate the pump-out system, are		R				

					Extra credit: Provide photo of instructions.
52. Do you discourage the discharge of pollutants/greywater in the marina basin?	R				
<i>BMP examples</i> : Encourage eco-friendly, non-phosphorus detergents; provide laundry and dish washing facilities; include language in lease agreements and contracts.					Extra credit : Provide a copy of lease agreement and contract language.
53. Do you provide clean, functional restrooms 24 hours/day for marina customers to encourage people not to use their boat's bathroom while at port?	R				
54. If applicable, do you maintain your septic system regularly? Do you post signs and/or have language in rules and contracts about what can and cannot go into the system?	R				
Sewage and Gray Water Management BMP Comments ar	nd Notes:				
		l			
Waste Management and Recycling	Status	Yes	No	N/A	Evidence
Waste Management and Recycling 55. Do you store, use, and dispose of hazardous waste and universal waste in accordance with federal and state regulations?	Status M	Yes	No	N/A	Evidence
Waste Management and Recycling 55. Do you store, use, and dispose of hazardous waste and universal waste in accordance with federal and state regulations? <i>BMP examples</i> : Store hazardous wastes and universal wastes in appropriate, labeled, and separate containers; minimize spills, leaks, or releases. Store liquid waste in proper, well-labeled containers, and provide secondary containment as required.	Status M	Yes	No	N/A	Evidence
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 Waste Management and Recycling 55. Do you store, use, and dispose of hazardous waste and universal waste in accordance with federal and state regulations? <i>BMP examples</i>: Store hazardous wastes and universal wastes in appropriate, labeled, and separate containers; minimize spills, leaks, or releases. Store liquid waste in proper, well-labeled containers, and provide secondary containment as required. 56. Do you prohibit all dumping of solid waste in the water? <i>BMP examples</i>: Include language about prohibition of dumping in your slip agreements, facility rules, and service provider contracts. Encourage boaters to contact marina staff if they encounter hazardous waste. 57. If your marina provides a fish cleaning station, do you contractually bind your customers to the proper disposal of fish waste? 58. If your marina provides a dog walk, pet disposal bags, and receptacles, do you contractually bind your customers to the proper disposal of pet waste? 	Status M M R M	Yes		N/A	Evidence Provide photo or video of waste storage and disposal. Provide copy of facility rules. Provide copy of facility rules. Extra credit: Provide contract language. Provide contract language and photo of disposal area.
 Waste Management and Recycling 55. Do you store, use, and dispose of hazardous waste and universal waste in accordance with federal and state regulations? <i>BMP examples</i>: Store hazardous wastes and universal wastes in appropriate, labeled, and separate containers; minimize spills, leaks, or releases. Store liquid waste in proper, well-labeled containers, and provide secondary containment as required. 56. Do you prohibit all dumping of solid waste in the water? <i>BMP examples</i>: Include language about prohibition of dumping in your slip agreements, facility rules, and service provider contracts. Encourage boaters to contact marina staff if they encounter hazardous waste. 57. If your marina provides a fish cleaning station, do you contractually bind your customers to the proper disposal of fish waste? 58. If your marina provides a dog walk, pet disposal bags, and receptacles, do you contractually bind your customers to the proper disposal of pet waste? 59. Do you fence in your solid waste dumpster to prohibit unsolicited dumping? 	Status M M R M R R R R R	Yes		N/A	Evidence Provide photo or video of waste storage and disposal. Provide copy of facility rules. Provide copy of facility rules. Extra credit: Provide contract language. Provide contract language and photo of disposal area.
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transmission fluids, and indicate where to dispose of these hazardous wastes?						of signs indicating rules.
61. Do you take extra steps to reduce waste, see below for examples?		R				
<i>BMP examples</i> : Avoid having leftover materials by sizing up a job minimize office waste, request alternative packing material, discourage the use of single-use plastic and Styrofoam cups, etc	D,					
62. Do you currently work or pledge to work with a service contractor or other business, and boaters to properly and to safe remove and recycle shrink-wrap from boats?	ly	R				Extra credit: Provide shrink-wrap
<i>BMP examples</i> : Recommend or sell canvas boat covers and/or distribute educational information about shrink-wrap recycling.						
63. Do you encourage recycling and proper waste disposal by providing receptacles that are labeled and located away from the water?	,	R				
64. Do you post signs and/or include language for boaters in rule and contracts indicating what CAN be recycled and where?	s	R				
65. Do you provide or promote recycling of liquid waste for customers/boaters (e.g., used oil, antifreeze, and solvents)?		R				
66. Do you encourage employees to monitor the marina grounds waters, and shoreline for trash and litter?	,	R				
]			
67. Do you discourage the feeding of waterfowl in your marina?		R				
67. Do you discourage the feeding of waterfowl in your marina? Waste Management & Recycling BMP Comments and	Notes:	R				
67. Do you discourage the feeding of waterfowl in your marina? Waste Management & Recycling BMP Comments and Marina Management and Boater Education	Notes: Status	R Yes		[0]	N/A	Evidence
 67. Do you discourage the feeding of waterfowl in your marina? Waste Management & Recycling BMP Comments and Marina Management and Boater Education Once you have adopted Clean Marina Best Management Practic (service) tenants, contractors, and boaters? 	Notes: Status es (BMP	R Yes s), have	N e you		N/A unicate	Evidence d BMPs to your employees,
 67. Do you discourage the feeding of waterfowl in your marina? Waste Management & Recycling BMP Comments and Marina Management and Boater Education Once you have adopted Clean Marina Best Management Practic (service) tenants, contractors, and boaters? 68. Do you professionally train staff on the required plans, and do you log staff trainings? 	Notes: Status æs (BMP M	R Yes s), hav	N e you		N/A unicate	Evidence d BMPs to your employees,
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		1	-	1				
70. Do you have established procedures and train employees on how to approach boaters or contractors who are not following the best management practices/procedures?	Μ					Provide copy of procedures/guidance.		
71. Do you pledge to incorporate applicable BMPs, such as sewage handling and waste management, into all your contracts with slip holders, live-aboards, transients, charters, contractors, and tenants?	R							
72. Where appropriate, do you post signs informing boaters of	R							
						Extra credit: Provide photo of signs.		
73. Do you provide environmental education materials to boaters and contractors through direct mail email newsletter	R							
or other sources (e.g., distribute the Clean Boaters Tip Sheets or include articles about BMPs in your newsletter)?						Extra credit : Provide examples of boater educational materials.		
74. Do you host walking tours of the facility or use public relations and customer recognition to demonstrate and	R							
promote BMPs?						Extra credit: Provide publicity materials or photos.		
Aquatic Invasive Species Education and Management	S	Status	Yes	No	N/A	Evidence		
Aquatic Invasive Species Education and Management The National Invasive Species Act (NISA) helps state agencies spread of aquatic nuisance species. Multiple states prohibit the aquatic plants into state waters. The owner of a public boating a prohibiting aquatic plants in state waters.	develop blaceme ccess si	policies policies ent of wa ite shall	Yes and r tercra post a	No egulati ft or wa	N/A ons to p atercraf	Evidence prevent the introduction and t equipment with attached t the site the state notice		
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Aquatic Invasive Species Education and Management The National Invasive Species Act (NISA) helps state agencies a spread of aquatic nuisance species. Multiple states prohibit the aquatic plants into state waters. The owner of a public boating a prohibiting aquatic plants in state waters. 75. Does your marina own a public boating access site? If YES, you pledge to obtain an Aquatic Invasive Species (AIS) sign and post it at the boating access site? <i>BMP example</i> : • AIS sign and AIS sticker • Check your state boating laws for more information 76. Do you inform boaters and encourage best management	develop blaceme ccess si do to	policies ent of wa ite shall M	Yes and r tercra post a	No egulati ft or wa and ma	N/A ons to p atercrafi intain at	Evidence prevent the introduction and t equipment with attached t the site the state notice Provide a photo of AIS sign and stickers.		
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78. Do you provide an area – contained and managed for wash water – where day-use boaters can carefully inspect, clean, and	R		
drain their boats, trailers, and equipment when they leave the water? If you do not have day-use boaters at your marina, please mark N/A for this question.			Extra credit: Provide a photo of clean, drain, dry area.
<i>BMP examples</i> : For marinas with day-use boat ramps, provide trash receptacles for disposal of leftover bait and debris, plants, and mud from trailers and equipment; provide high-pressure washer or hot water; provide oil-absorbent materials at wash station.			
Aquatic Invasive Species and Management Comments and	Notes:		

Coastal Adaptation and Resilience

Coastal Adaptation and Resilience best management practices are relatively new in the marina industry. There is a growing list of resources and tools for marina and harbor operators in adapting to environmental variability and building resilience to climate change. Ports, harbors, and marinas are vulnerable to several predicted climate change conditions. Most facilities will need to adapt to changes in the amount of precipitation, stronger and more frequent storms, king tides, fluctuating lake levels, wave and erosion impacts to structures and shorelines. Operational changes may also be needed; for example, shorter winters make for a longer boating season, potentially impacting staffing, and scheduling.

The questions in this section are recommended (R); however, marinas, boatyards, and yacht clubs should recognize the significance of these practices and address them now to protect their assets, people, and the surrounding natural resources. There are many federal, state, and local agencies and organizations with technical and financial resources to help guide a facility through a coastal adaptation and resilience planning process.

As **evidence extra credit**, please provide examples of how your facility has planned, prepared, adapted, responded, and communicated the practices in place.

Coastal Adaptation and Resilience	Status	Yes	No	N/A	Evidence Extra Credit
 79. Do you track water level variability or king tides in your area/region? Additional Resources: NOAA Tides and Currents USACE Great Lakes Six-Month Forecast Bulletins 	R				
 80. Do you understand your flood risk, and have you prepared for flooding or storm surges caused by heavy rain? Additional Resources: Flood Map Service Center (FEMA) Flood Maps: Know Your Risk and Take Action Against Flooding (FEMA) National Flood Insurance Program: Flood Hazard Mapping (FEMA) 	R				Extra credit : Provide examples of how you have prepared for flood or storm surges.
 81. Have you evaluated infrastructure and grounds (e.g., docks, structures, naturally protective wetlands, bluffs, beaches) to prepare your facility for a disaster? Additional Resources: <u>The Ports Resilience Index</u> (Gulf of Mexico Alliance) 	R				Extra credit: Provide documentation of your process and next steps. This will help other marinas as they prepare a disaster response plan.

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 82. Have you established an on-site disaster response team and plan (e.g., evacuation procedures, employee safety, property protection, identification of emergency assistance, communications plan, procedures to secure boats in wet and dry slips, post-disaster clean-up procedures)? Additional Resources: Prepare my business for an emergency (Homeland Security) Protecting your boat against severe weather Preparation, Adaptation, and Response Tool for Great Lakes Marinas (PDF, Ohio Sea Grant, NOAA) 	R			Extra credit : Provide a copy of your disaster response plan. This will help other marinas as they prepare their own plans.
83. Is your marina included in your local government's hazard mitigation plan? <i>Additional Resource:</i>	R			
Hazard Mitigation Planning for states (FEMA)				
84. Have you repaired or reinforced infrastructure or planned for long-term adaptation practices for the changing climate?	R			
 BMP examples: Evaluate how the maintenance and operations of your buildings perform under extreme conditions (e.g., high temperatures, heavy downpours). Assess timber crib or other dock infrastructure for deterioration (e.g., wood previously underwater, rock foundations vulnerable to cracking due to exposure to freeze-thaw cycle). Estimate the costs of climate adaptation and explore financing options. Additional Resources: Great Lakes Port & Harbor: Infrastructure & Dredging Cost Estimate Matrix Tool and Duluth, MN/Superior, WI, and Toledo, OH Case Studies (PDF. Great Lakes Climate) Adapting to Climate Change: A Planning Guide for State Coastal Managers – Appendix A: Potential Federal Funding Sources (PDF, NOAA) 				Extra credit: Provide photos or videos of what you have done at your facility or share what long- term adaptation practices you are planning to implement.
 85. Do you represent your facility in community planning efforts (e.g., master planning, climate adaptation planning)? Additional Resources: What Could Changing Great Lakes Water Levels Mean for our Coastal Communities? A Case for Climate-adapted Planning Approaches (PDF, NOAA) Adapting to Climate Change: A Planning Guide for State Coastal Managers (PDF, NOAA) 	R			Extra credit : Please share your involvement with your community's planning efforts.
Coastal Adaptation and Resilience Comments and Notes:	I	1	L	

AMI CLEAN & RESILIENT MARINA BEST MANAGEMENT PRACTICES CHECKLIST – FOR CRMP SPECIALIST USE ONLY

Comments and Recommendations

Use this section to explain any answers or request any additional information from the AMI CRMP Verification Committee. Please refer to the appropriate question number. Attach additional pages if needed.

TO BE COMPLETED BY MARINA OWNER, OPERATOR, or MANAGER

I certify that the answers in this form are accurate and answered to the best of my abilities.

Marina Owner, Operator, or Manager Signature

Date



Educating & Connecting Marina Professionals

September 21, 2022

FROM:

Eric Kretsch Clean and Resilient Marina Coordinator Association or Marina Industries 50 Water St., Warren, RI 02885 401-247-0313 Ext. 107

To whom it may concern,

I am writing on behalf of the Association of Marina Industries to confirm the receipt of Safe Harbor (SH) Vineyard Haven and Edgartown's Clean and Resilient Marina Program application. Their application is in the review process and will be approved in October of 2022.

It should be noted that Chris Scott, General Manager of SH Vineyard Haven and Edgartown, has completed AMI's Clean and Resilient Marina Course and is a *Clean and Resilient Marina Professional*. This is the only professional certification in the operation of clean and resilient marinas. To receive this designation, Chris completed 2.5 days of coursework on implementing clean and resilient best management practices. Topics covered included stormwater management, waste management and oil pollution prevention, boater education, aquatic invasive species, and more.

AMI established our Clean and Resilient Marina Program this year, 2022, with the goal of training and certifying marina professionals and filling gaps between state programs. For example, though the state of Massachusetts has a Clean Marina Program, it is education only, with no facility certification possible. Vineyard Haven and Edgartown Marina, when approved, will be two of the first marinas certified clean and resilient in the state of Massachusetts.

If you have any additional questions do not hesitate to contact me directly.

Thank you,

N. Ratat

Eric Kretsch



Project: SHM Vineyard Haven Marina 100 Lagoon Pond Rd. Vineyard Haven, MA 02568

Ref: Proposed New Outdoor Rack Structures

To whom it may concern:

The proposed outdoor racks are in the approval process and have not been engineered as of yet.

The outdoor racks will be signed and sealed by an MA licensed engineer and will be designed to meet or exceed local codes.

The proposed racks in question will be designed to 150mph Wind Load, Exposure D, along with the boat loads as shown on MDB drawings. The design will be based on the racks fully loaded with boats.

Please feel free to contact out to me at any time.

Sincerely

David Coyle Mack David Buildings LLC.



Hello Mr. Guard and Mr. Scott,

It was good to meet and speak with you. Thank you for your concern for water quality in the West arm of the Lagoon. I understand how the 2020 changes to the classification of the West arm could lead folks to incorrectly assume a marina could be at fault. However, there is no single point source responsible for the degradation of water quality in the West Arm. The shellfish growing area was closed and eventually reclassified due to a series of water quality test results which fell outside of the national standards for safe shellfish harvesting. The samples were collected in accordance with the National Shellfish Sanitation Program (NSSP) policy which requires the water of each Designated Shellfish Growing area (DSGA) to be sampled a minimum of five times per year while the area is in the "Open to Shellfishing" status. I have attached a timeline of the classification changes in the West arm for you to review. The growing area was closed due to poor water quality results and subsequently I increased my sampling regimen and performed a shoreline pollution source survey with assistance from the Town shellfish constable Danielle Ewart, and Jen Sheppard from MA DEP. After in-depth monitoring and continued analysis of the water quality in the West arm, my program determined that the westernmost end of the arm should be reclassified to "Prohibited" based on continued poor water quality results.

You expressed a concern that the reclassification could have been due to some legislation specific to marinas. While there are marina and mooring area classification requirements in the NSSP Model Ordinance (MO), the size and timing of the "Prohibited" classification of the West arm is not due to an application of marina assessment requirements. Based on the information Chris provided me in 2021, I was able to forego pollution assessment of the presence of vessels in the marina because there is no overnight occupancy, and because the marina is already in a "Prohibited" area.

My pollution survey identified wetlands, creeks, wildlife areas, and runoff locations along the shoreline of the "Prohibited" area V11.3. All are likely to contribute to the degradation of water quality in the back of the West arm. The fact that monitoring continues to show clean water in the more geographically open areas of the pond tells me the shallow, low-flow region at the back of the West arm is ecologically well suited for the task of sequestering nutrients and bacteria and providing foraging habitat for wildlife. While it is unfortunate that the quahog resource there is no longer suitable for harvest, those shellfish will continue to spawn and in doing so act as a valuable brood stock for the rest of the pond.

Ms. Ewart has already asked me to continue monitoring the water quality at the back of the West Arm. When able, I collect samples at the routine monitoring stations in the area. If data trends change to indicate an improvement in overall water quality of that area, our office would consider reopening as much of the West arm as data shows is safe. In the meantime at your request to discuss mitigation strategies, I would be happy to have that conversation with you and would invite Danielle to participate as well.

Sincerely, Simone E Wright, Area Biologist Massachusetts Division of Marine Fisheries Shellfish Sanitation and Management Program

<u>A Timeline of Classification Changes to the West Arm of Lagoon Pond (V11)</u> in the Town of Tisbury (2010-2020)

In 2010 and prior, the Marina area V11.6 was classified as "Conditionally Approved" with a status of "OPEN TO SHELLFISHING" between the dates of November 1 - April 30. The original definition:

"V11.6

Maciel's Marine

"The waters and flats of that portion of Lagoon Pond in the Town of Tisbury, west of a line drawn in a southerly direction from the "NO SHELLFISHING" sign behind Granite City Electric Company at 145 Beach Road to the dock owned by or formerly owned by Sarah G. Shepard located between Lots 114 and 140 Hines Point Road, excluding area V11.3".

November 2013- The size of the growing area was reduced in response to a determination that there was no overnight occupancy of boats at the marina.

"V11.6

Maciel's Marine

"The waters and flats of that portion of Lagoon Pond in the Town of Tisbury, west of a line drawn in a southerly direction from the "NO SHELLFISHING" sign on the marsh northeast of Maciel's Marina to the "NO SHELLFISHING" sign at the end of Skiff avenue, excluding area 11.3".

July 2018- Data collected near Ferry Boat Island indicated a degradation of water quality in the West Arm, and a new, 4.3-acre "Conditionally Approved" area was established with a status of "OPEN TO SHELLFISHING" between the dates of October 1 – July 31:

"V11.7

South of Ferry Boat Island

"The waters and flats of that portion of Lagoon Pond in the Town of Tisbury; south of a line drawn westerly from the western tip of Ferry Boat Island to the "NO SHELLFISHING" sign on the opposite shore; east of a line drawn across the salt marsh opening to Prime Marina; and west of the line drawn southerly from the northeast tip of Ferry Boat Island to the "NO SHELLFISHING" sign on the southeast end of the spit of salt marsh outside Prime Marina".

December 2019- Following continued poor water quality results, former growing areas V11.4, 11.6, 11.7 and a portion of V11.0 were combined and reclassified to "PROHIBITED":

"V11.3

West Arm of Lagoon Pond

"The waters, flats, and all tributaries of that portion of Lagoon Pond in the Town of Tisbury; west of a line drawn in a southerly direction from the "NO SHELLFISHING" sign located at 41.452563, -70.596308 to the "NO SHELLFISHING" sign located at 41.447926, -70.595725 on the opposite shore". **February 2020-** Continued poor water quality results caused a temporary "CLOSED TO SHELLFISHING" status in the "Approved" section of the West Arm. The West Arm was monitored closely following the status closure:

"V11.4

Entire West Arm of Lagoon Pond

"The waters, flats, and all tributaries of that portion of Lagoon Pond, in the Town of Tisbury; west of a line drawn from the "NO SHELLFISHING" sign at the Town boat ramp to the "NO SHELLFISHING" sign at the northern end of Cedar Neck and east of a line drawn from the "NO SHELLFISHING" sign located at 41.452563, -70.596308 to the "NO SHELLFISHING" sign located on the opposite shore at 41.447926, -70.595725."

June 6, 2020- Following further monitoring and examination, V11.3 was expanded and reclassified to "PROHIBITED". V11.4 was placed back into the "OPEN TO SHELLFISHING" status and was absorbed into V11.0.

The most recent definitions of the West Arm are below. The notice for this most recent reclassification event is attached:

CLASSIFICATION: PROHIBITED STATUS: CLOSED TO SHELLFISHING

V:11.3

Lagoon Pond West Arm

"The waters and flats and all tributaries of that portion of Lagoon Pond, in the Town of Tisbury, west of a line drawn from the "NO SHELLFISHING" sign at 135 Beach Road, due south to the "NO SHELLFISHING" sign at 36 Hines Point Road"

CLASSIFICATION: APPROVED STATUS: OPEN TO SHELLFISHING

V:11.0

Lagoon Pond

"The waters and flats of that portion of Lagoon Pond in the Town of Tisbury, south of the Beach Road Bridge, east of a line drawn due south from the "NO SHELLFISHING" sign on the shore at 135 Beach Road to the "NO SHELLFISHING" sign at 36 Hines Point Road, and west of a 100-foot arc drawn westerly from the mouth of Brush Pond"

Triennial Reevaluation of V:11 Lagoon Pond In the Towns of Tisbury and Oak Bluffs

Date: January 2021 Author: Simone Wright Date of Last Sanitary Survey: January 2018 Date of Last Triennial Report: January 2015

RESPONSES TO THE RECOMMENDATIONS OF THE LAST REPORT

- "A precautionary status change closure should be implemented around Classification Station 9 in August and September of 2018, and the station should be sampled more frequently to assess whether the elevated samples in August 2015 and September 2018 were anomalous, or whether a reclassification to "CONDITIONALLY APPROVED" is warranted": Monitoring continued. The area surrounding station 9 was redefined as V:11.7 and reclassified as "Conditionally Approved" with a "CLOSED TO SHELLFISHING" status. Later it was redefined again as V:11.3 and reclassified to "PROHIBITED".
- "Classification of sub-areas should remain unchanged, pending additional sampling and data review of classification station 9": Following additional sampling, V:11.4, V:11,6, V:11.7, and a portion of V:11.0 were combined, redefined as V:11.3, and reclassified to "PROHIBITED" ON 12/2/2019.
- 3. "The classification stations within the area (other than station 9) should continue to be sampled at the current interval of a minimum of 5 times per year.": *Done*
- 4. "A triennial report should be completed in January 2021": Done

AREA DESCRIPTION

The Designated Shellfish Growing Area Lagoon Pond (V:11) is a tidal salt pond located on the northern side of Martha's Vineyard, within the towns of Tisbury and Oak Bluffs. A narrow opening in the northern end of the pond connects it to Vineyard Haven Harbor. Lagoon Pond is divided into three classification areas. The largest classification area is V:11.0, Lagoon Pond, which is "APPROVED" and in the "OPEN TO SHELLFISHING" status. There are two "PROHIBITED" subareas, V:11.2 and V:11.3. Lagoon Pond is long and narrow, with a roughly north-to-south direction. There is a large shallow cove in the northwest, referred to as the West Arm. Lagoon Pond is hydrographically connected to Vineyard Haven Harbor (V:10) via a channel which flows under the Bridge Street Bridge in the north. The growing area is relatively shallow, with an average depth of 4 feet. In the main body of the growing area, near the middle of the pond it reaches a depth of 11 feet. The shoreline has narrow beaches of sand or cobble, which are backed by woods except for in the downtown Tisbury area. A few salt marshes are scattered along the shore as well. Patches of eelgrass habitat are located near the mouth of the pond and in small areas along the eastern shoreline of the growing area.

Lagoon Pond

"The waters, flats, and all tributaries of Lagoon Pond in the Towns of Tisbury and Oak Bluffs, south of the Beach Road Bridge".

CURRENT CLASSIFICATIONS OF THE GROWING AREA

CLASSIFICATION: APPROVED Status: Open to Shellfishing

V:11.0

Lagoon Pond

"The waters, flats, and Tributaries of Lagoon Pond, in the Towns of Tisbury and Oak Bluffs on Martha's Vineyard, south of the Beach Road Bridge, east of a line drawn due south from the "NO SHELLFISHING" sign at 135 Beach Road to the "NO SHELLFISHING" sign at 36 Hines Point Road, and west of a 100-foot arc drawn westerly from the mouth of Brush Pond (506 acres)".

CLASSIFICATION: PROHIBITED Status: Closed to Shellfishing

V:11.2

Brush Pond

"The waters, flats, and all tributaries of Brush Pond and that portion of Lagoon Pond in the Town of Oak Bluffs east of a line drawn in an arc extending 100 feet westerly into Lagoon Pond from the mouth of Brush Pond (5 acres)".

CLASSIFICATION: PROHIBITED Status: Closed to Shellfishing

V:11.3

Lagoon Pond West Arm

"The waters, flats, and all tributaries of Lagoon Pond, in the Town of Tisbury, west of a line drawn from the "NO SHELLFISHING" sign at 135 Beach Road, due south to the "NO SHELLFISHING" sign at 36 Hines Point Road (34 acres)."

V:11



Figure 1. Classification map of V:11, Lagoon Pond

PREDOMINANT LAND USE

The shoreline around Lagoon Pond is primarily residential, with a few notable exceptions. The exceptions to the residential trend surrounding Lagoon Pond are located in the north. The northern shoreline of the West Arm abuts downtown Tisbury, where the Lagoon is bordered by some commercial properties including a marina, a shipyard, a strip mall, offices, and a retail establishment. These businesses are all connected to the town's wastewater disposal system, which is an inland facility with a sand bed filtration system. In the northernmost corner, Martha's Vineyard Hospital is adjacent to the shore of Brush Pond (V:11.2), a minimum of 250 feet from the marsh. It is connected to the Oak Bluffs wastewater disposal system, which is also an inland facility with a sand bed filtration system. There is no agriculture in the vicinity of the growing area, and there are no Wastewater Treatment Plant Discharges in or near the growing area. Most of the homes in this area are connected to individual septic systems. At the time of the survey, no evidence of septic failure was observed.

SHELLFISH RESOURCES

Lagoon Pond is a valuable resource for commercial and recreational shellfishing. The growing area supports a year-round fishery of quahogs (Mercenaria mercenaria), soft shell clams (Mya arenaria), and seasonal fishing of bay scallops (Argopecten irradians). Blue mussels are present in the growing area, but not in sufficient quantities to sustain a fishery.

SUMMARY OF SHORELINE SURVEY

A shoreline survey was conducted in February 2020 by Simone Wright (DMF), Danielle Ewart (Tisbury Shellfish Constable), and Jennifer Sheppard (DEP). The survey was continued by Simone and Danielle in December 2020. All real and potential pollution sources were recorded and mapped by Simone Wright (Figure 2, Form 1). Pollution source samples were collected when and where possible (Table 2), and visual pollution source monitoring continued over the course of the year. Some of the pollution sources identified may adversely impact water quality, and so actions were immediately taken by the Shellfish Constable Danielle Ewart to strengthen enforcement. Water quality sampling at routine stations near the identified potential sources were monitored and showed no sign of adverse impacts.



Figure 2. Map of all real and potential pollution sources in Lagoon Pond

Wetlands

Four wetlands discharge into Lagoon Pond. A pond located in the southernmost end of the pond discharges into the growing area via a herring run (P.S.# 3). There is a small marsh located next to Burt's Way (P.S.# 11) and at the back of the West Arm, a larger marsh system called Mud Creek, which is located across the street from Prime Marina. Some of the Mud creek system is mapped as part of V:11.3 and is classified as "PROHIBITED". It enters the main body of the growing area under the Howard Avenue Bridge (P.S.# 13). Adjacent to the northeastern extent of the Prime Marine property is a small area of wetland drainage marked by an orange footbridge (P.S.# 17). In the northern corner of the pond, another marsh system

called Brush Pond (V:11.2) is classified as "PROHIBITED" and empties into the northern corner of the growing area (P.S.# 27).

Industry

While the majority of the growing area is residential, there are a few industrial properties adjacent to the West Arm. Prime Marina and Martha's Vineyard Shipyard both have boat storage facilities near the growing area. An electrical supply company warehouse is present near the edge of the growing area on Beach Road. Packer Fuel company has an industrial storage facility on Beach Road, which is adjacent to Lagoon Pond. Most of the shoreline in the Packer Company area is protected by a wide vegetative buffer of grasses and scrub. Straw wattles are also in place to mitigate erosion and filter stormwater. The Martha's Vineyard Hospital is located adjacent to Brush Pond, however there are no dumpsters or medical waste receptacles within 200 feet of the wetland, which is "PROHIBITED".

Marinas and Mooring Areas

There are four mooring areas and a marina located in the study area. All are monitored by the harbormaster and shellfish constables from Tisbury and Oak Bluffs (P.S. #'s 32-36; Figure 3, Forms 2-6).

-Mooring Areas

There are four identified mooring areas in Lagoon Pond (P.S. #'s 32, 33, 34, 35; Figures 2, 3; Forms 3-6). At Renier's Mooring Area (P.S.# 32, Form 2), the vessels are almost all houseboats which belong to residents of the adjacent neighborhood. The Madieros Cove mooring area (P.S.# 33, Form 3) is comprised of scattered moorings, most of which are seasonally present from May to October. The same is true for the Northeast Corner mooring area (P.S.# 34, Form 4). The vessels in these mooring areas are primarily small day vessels, but a few liveaboard vessels do moor there as well. The Lagoon Pond Landing Mooring Area (P.S.# 35, Form 5) is used for work boats, charter boats, and small vessels. None of the boats in this mooring area has the capacity for MSDs and none has potential for overnight occupancy.

-Marinas

Prime Marine is located at the western extent of the West Arm of Lagoon Pond, in the "PROHIBITED" subarea V:11.3 (P.S.# 36; Figure 3, Form 6). The marina has a fuel dock (P.S.# 15) and a boat washing service. The power-washing operation is connected to a carbon filtration and evaporation system which prevents any runoff associated with power washing from contaminating the area, however this system has a safety valve pipe which could output boat wash runoff into the growing area in the event of an overflow (P.S.# 14).



Figure 3. Location of identified mooring areas and marinas in Lagoon Pond

Animals

There are two year-round populations of waterfowl in the Lagoon Pond area. A flock of Canada geese nest and forage in the "PROHIBITED" West Arm, near Ferryboat Island (P.S.# 18). The Tisbury Shellfish Constable is permitted to perform some population control techniques. Water quality near this area is monitored by Classification Station #9. A flock of Mallard ducks also resides year round behind the Vineyard Scripts building (P.S.# 19). A nearby shopkeeper admitted to regularly feeding the ducks and was instructed to stop. That area is monitored by Classification Station 9B. There is also a scallop shell dump in the "PROHIBITED" area V:11.3 where wildlife congregate to feed on scallop scraps (P.S.# 12). Runoff from the nearby road has potential to wash animal waste from the site into the water, which is classified as "PROHIBITED".

In the lot between Granite City Electric and an office building at #151 Beach Road, evidence of regular dog walking was observed during sampling (P.S. #21). The Shellfish Constable is aware of the issue and agreed to patrol the area regularly and post additional signage. This pollution source is monitored by Classification Station S.

Pipes and Roof Drains

Two pipes discharge spring water just outside the herring run on Barnes Road (P.S.# 1, 2). These are monitored by Classification Station 4. A roof drain is located near border road (P.S.# 4), but any potential discharge from the pipe would be filtered across a vegetative buffer prior to reaching the water. A power washing discharge pipe is also present near the growing area at Prime Marine (P.S.# 14) but this pipe is rarely used and is attached to a sophisticated filtration system which would reduce the contamination potential of any outfall. The pipe opening is located inside a "Prohibited" area, V:11.3 and is monitored by Classification Station 6. There is another dry pipe with no evidence of flow at #114 Hines Point Road (PS# 10). The water quality near the pipe outfall is monitored by Classification Station 9B. The state shellfish hatchery next to Brush Pond is operated by the Martha's Vineyard Shellfish Group, which uses the hatchery to raise shellfish seed. The hatchery operation has seawater intake and discharge pipes, the openings of which are submerged in the growing area. The hatchery water is circulated through the hatchery and released next to the intake valve. This water is only used for shellfish rearing and does not have any adverse effect on water quality in the growing area (P.S.# 8). It is monitored by Classification Station 8. Another pipe (P.S.# 29) is located just south of the shellfish hatchery, under a set of stairs to the beach. It was not flowing at the time of the survey and had no evidence of flow.

Storm Drains

A filled culvert is located below the shoreline at the Packer property (P.S.# 24). The culvert is crushed and filled with sand, with no evidence of flow. Another storm drain is located in the revetment on the Beach Road Bridge (P.S.# 26). This steel pipe did not have evidence of flow. Nearby water quality is monitored by Classification Station 8.

Runoff

During the shoreline survey, ten areas were identified as potential runoff points. These locations include dead-end roads and boat ramps:

-Roads

There are six steep, paved roads which end abruptly at the growing area and have evidence of runoff from previous rainfall events. These are Cronig Road (P.S.# 5), Lagoon Pond Road (P.S.# 7), Maciel Way (P.S.# 9), Skiff Road (P.S.# 12), Lagoon Road (P.S.# 30), and Hudson Ave (P.S.# 31). At Maciel Way the runoff area is protected by a swale and at Hudson Ave rainwater flows through 30 feet of sandy beach prior to reaching the waterline. Lagoon Road is monitored by Classification Station 2. The Skiff Road runoff site is located in the "PROHIBITED" area V:11.3 and has potential to deteriorate water quality because the path of the water would flow directly through a scallop shell dump, which is a common feeding site for wildlife.

-Boat Ramps

Four boat ramps provide access to the growing area. Two are at the Martha's Vineyard Shipyard (P.S. #'s 22, 23) and are monitored by Classification Station S. One boat ramp is located at Prime Marine Marina (P.S.# 16) which is in a "PROHIBITED" area and is monitored by Classification Station 6. The last boat ramp is located at the Lagoon Pond Town Landing where it is connected to a wide asphalt parking lot (P.S.# 25). This runoff location is monitored by Classification Station 10S.

HYDROGRAPHIC AND METEOROLOGIC FACTORS

This region receives a full range of seasonal variation, with the majority of inclement weather occurring between the months of October and March. However, due to its geographic location, it is substantially protected from the winter winds which prevail from the northwest. Most of the steep shoreline areas are protected by established vegetative buffers.

The southern portion of the Lagoon is a deep basin with a handful of sand bars. This area averages 27 feet in depth in the middle, with a steep surrounding shoreline that drops off abruptly. Two sand bars separate this southern area from the northern portion of growing area, which is relatively shallow save for a 19-foot-deep channel that winds between the sandbars in a northeasterly direction. The northern portion of the Lagoon is characterized by sandy substrate and eelgrass beds. Next to the channel, the Lagoon is about 15 feet deep but in the West Arm it is much shallower with muddy benthos under an average two feet of water. The northeast corner near Brush Pond is sandy and about 7 feet deep.

As they are substantially shallower, the West Arm and the Northeast Corner areas experience more flushing than the deeper southern portion where water movement is limited by the channel and sand bars. Fortunately, there are few sources of pollution in that area and water quality is fair (Table 2).

ANALYSIS OF WATER QUALITY

Methods:

Water quality samples are collected at routine sampling stations when the growing area is in the "OPEN" status (Figure 4). The samples are obtained and processed using standardized methodology which is outlined in the NSSP Model Ordinance. Samples are collected in sterile Nalgene bottles and transported in temperature-controlled coolers to the laboratory at the Division of Marine Fisheries in New Bedford. Surface water temperatures are measured in the field using pocket thermometers. Sample salinities are measured in the laboratory using a refractometer. Water samples are analyzed using the membrane filtration (m-TEC) method.



Figure 4. Map of routine classification monitoring stations in V:11, Lagoon Pond.

Sample Analysis:

Pollution source sample data is kept on file to inform the Division of Marine Fisheries about the current pollution potential of identified pollution sources (Table 1).

Pollution	CFU/100mL	CFU/mL	
Source	on	on	
Number	2/10/2020	2/19/2020	
12	<10	<10	
13	<10	<10	
17	10	<10	
18	<10	<10	
19	<10	<10	
24	<10	<10	
26	10	N/A	

Table 1. Table of pollution source sample results collected in Lagoon Pond between 2019 and 2020.

Water quality data collected at Classification Stations is analyzed using the geometric mean of the fifteen most recent samples at each station in the growing area (Table 2). Stations 9A, 9B, S, and 10S were added partway through the sampling year in 2020. At the time of this survey those stations do not have enough data to perform analysis.

Station Number	Station Name	Classification	N	Geometric Mean	%>31 CFU/mL	
1	Outside Brush Pond	Approved	15	2.1	0	
2	Lagoon Ave	Approved	15	2.1	6.7	
3	Madieros Cove	Approved	15	3.3	6.7	
4	Herring Pond	Approved	15	3.3	6.7	
6	Prime Marine	Prohibited	15	14.1	46.7	
7	Shellfish Hatchery	Approved	15	2.4	0.0	
8	Mouth of Lagoon Pond	Approved	15	2.0	0.0	
9	Ferryboat Island	Prohibited	15	14.6	46.7	
9A	Inside Closure	Prohibited	-	-	-	
9B	Outside Closure	Approved	-	-	-	
S	MV Shipyard	Approved	-	-	-	
10S	East of Family Spot	Approved	-	-	-	

Table 2. Analysis of the most recent data collected in V:11, Lagoon Pond. *Stations 9A, S, and 10S were added in February 2020, and Station 9B was added in June 2020. These stations have insufficient data for management decisions, however their numbers and names are included for reference.*

DISCUSSION AND CONCLUSIONS

The mooring areas will be evaluated in the coming months to determine if it is necessary to reclassify them in light of the recent changes to the NSSP Model Ordinance. No signs of septic failure or other major, long-term issues were identified. The few areas of concern were immediately addressed by the Shellfish Constable and subsequent water testing sample results confirmed that they are no longer problematic. The most recent data indicates that the APPROVED and PROHIBITED classifications for the subarea meet NSSP standards for water quality.

RECOMMENDATIONS

- Pursuant to new regulations in the NSSP Model Ordinance, the mooring areas identified in this triennial reevaluation should be reclassified as "CONDITIONALLY APPROVED". Open/Closed status conditions shall be based on dates of use as well as boat type, occupancy, and enforcement.
- 2. Water quality monitoring should continue a minimum of five times per year in the open status, with supplemental pollution source sampling continuing when possible.
- 3. A Triennial Reevaluation should be completed in January of 2024.