NARRATIVE DISCUSSION TO ADDRESS RELEVANT PORTIONS OF: TITLE 680 - COASTAL RESOURCE MANAGEMENT COUNCIL, CHAPT 20 - COASTAL MANAGEMENT PROGRAM

The sections of the Coastal Management Program that are applicable to this Assent Application are presented below with a response relative to the proposed work. The responses are in *italic* and in red font.

1.3.1 A. Category B Requirements (formerly § 300.1)

- 1. All persons applying for a Category B Assent are required to:
 - a. Demonstrate the need for the proposed activity or alteration; *The property owners own a small vessel and require a residential dock to berth a vessel.*
 - b. Demonstrate that all applicable local zoning ordinances, building codes, flood hazard standards, and all safety codes, fire codes, and environmental requirements have or will be met; local approvals are required for activities as specifically prescribed for nontidal portions of a project in §§ 1.3.1(B), (C), (F), (H), (I), (K), (M), (0) and (Q) of this Part; for projects on state land, the state building official, for the purposes of this section, is the building official; *Not Applicable*
 - C. Describe the boundaries of the coastal waters and land area that is anticipated to be affected; The coastal waters are part of Point Judith Salt Pond, a Type 2 water. The proposed eastern (landside) terminus of the dock is proposed to be located within an existing lawn area. The proposed structure layout was developed to maximize distances to the property line extension and meet the minimal water depth requirements.
 - d. Demonstrate that the alteration or activity will not result in significant impacts on erosion and/or deposition processes along the shore and in tidal waters; *The proposed dock will be elevated on pile bents and will not impact currents or the depositional process along the shoreline.*
 - e. Demonstrate that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life; *The proposed dock is elevated and will allow angular sunlight beneath the structure. The structure will span wetland vegetation and will provide adequate vertical clearance.*
 - g. Demonstrate that the alteration will not unreasonably interfere with, impair, or significantly impact existing public access to, or use of, tidal waters and/or the shore; The proposed elevated portion of the dock will not impede public access or lateral egress along the shoreline. The proposed dock is similar, in terms of type and length, to other residential boating facilities along this portion of the Great Island shoreline. The dock structure is also set at an elevation that will provide lateral access beneath the structure. The public use of the waterway will not be impacted by the proposed facility.
 - h. Demonstrate that the alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation; *The dock is not significantly intrusive in the water column and therefore should not impact circulation.*

File No. 023-01 August 15, 2023 SEP 1 2 Page 3

COASTAL RESOURCES
MANAGEMENT COUNCIL

- į, Demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM; The proposed dock will not degrade the water quality, the materials used in the dock are generally accepted in the marine environment including treated timber and encapsulated plastic floats.
- j. Demonstrate that the alteration or activity will not result in significant impacts to areas of historic and archaeological significance; I am not aware of areas of historic or archaeological significance at the subject site.
- J. Demonstrate that the alteration or activity will not result in significant conflicts with water dependent uses and activities such as recreational boating, fishing, swimming, navigation, and commerce, and; The proposed construction is similar to other residential docks along the shoreline. The length of the proposed dock will not adversely impact boating along this length of shoreline.
- Demonstrate that measures have been taken to minimize any adverse scenic impact k. (see § 1.3.5 of this Part). The proposed dock construction is similar to other docks along the shoreline and there are no features that would change the appearance relative to other residential docks in the area.

1.3.1 (D)

7. Prohibitions

- The building of new marinas in Type 1 and 2 waters is prohibited. *Not Applicable*. a.
- The building of residential and limited recreational boating facilities in Type 1 waters is prohibited. This b. prohibition shall not apply to functional structures previously assented by the Rhode Island Division of Harbors and Rivers, the Army Corps of Engineers, or the CRMC. Additionally, in those instances where an applicant cannot produce a previous assent but can demonstrate by clear and convincing evidence that a residential dock in Type 1 Waters pre-existed and has been continuously functional prior to the formation of the Council, the Council may grant a permit provided the applicant can meet the requirements herein. Any assent granted pursuant to this section shall be recorded in the land evidence records and is transferable to a subsequent owner or purchaser of the subject property, provided however, that all assent conditions are adhered to and the dock is removed at the termination of assent. Not Applicable.
- The unloading of catches by commercial fishing vessels at residential and limited recreational boating C. facilities is prohibited.
- d. The building of structures in addition to the piles/pile cap / stringer / deck / handrail on a residential or limited recreational boating facility, including but not limited to gazebos, launching ramps, wave fences, boat houses, and storage sheds, is prohibited. However, the construction of boat lifts may be allowed in Type 3, 5, and 6 waters, and in Type 2 waters in accordance with the provisions of § 1.3.1(P) of this Part (Boat Lift and Float Lift Systems). No additional structures are proposed on the dock ED

COASTAL RESOURCES Page 4 MANAGEMENT COUNCIL

- e. Rhode Island is an EPA designated a No Discharge State; all vessel discharges within State Waters are prohibited.
- f. In Type 2 waters, the building of private launching ramps that propose to alter a coastal feature are prohibited, except along manmade shorelines. Where a coastal wetland fronts a manmade shoreline, the building of private launching ramps shall be prohibited. This prohibition does not apply to marinas with Council-approved marina perimeters (MPL). *Not Applicable*
- g. New residential or limited recreational boating facilities are prohibited from having both a fixed T section or L-section, and a float. *Proposed dock does not have structure described above*.
- h. Terminal Floats at residential and limited recreational docks in excess of two hundred (200) square feet are prohibited. *Proposed Terminal Float is 150 square feet in area.*
 - Residential recreational docks shared by owners of waterfront property are prohibited from exceeding more than two (2) terminal floats and a combined total terminal float area in excess of three-hundred (300) square feet. *Not Applicable*
 - J. Marine railway systems are prohibited except in association with: a marina; or, a commercial or industrial water dependent activity in type 3, 5 and 6 waters. *Not Applicable*
 - k. The installation or use of more than one (1) residential or limited recreational boating facility per lot of record as of October 7, 2012 is prohibited. *Not Applicable*
 - I. The construction and use of cribs for residential or limited recreational boating facilities is prohibited when located within coastal wetlands. *Proposed work does not include cribs*.

8. Standards

- a. All new or significantly expanded recreational boating facilities shall be located on site plans that clearly show the Mean Low Water (MLW) and Mean High Water Elevation (MHW) contours. The MLW shall be determined utilizing the "Short Term Tide Measurement" method. The Executive Director shall have the discretion to require a more accurate method of MLW determination when utilizing the Short Term Tide Measurement method will not provide accurate results. Guidance for the Short Term Tide Measurement is available from the CRMC. At the discretion of the Executive Director, a previously established tidal determination may be utilized if the areas have similar tidal characteristics. Engineering completed for this project utilized tidal datum relationships established by the U.S. Arny Corps of Engineers. These datum relationships are presented in using ACOE published data for Point Judith Salt Pond and contained in a report titled "Section 107 Navigation Improvement Project, Detailed Project Report and Environmental Assessment" and dated September 2018. The MSL was adjusted for sea level rise based on Newport tide station data. The Mean Low Water elevation is equal to approximately -1.5 ft NAVD 88.
- b. All new marinas, docks, piers, bulkheads or any other structure proposed in tidal waters shall be designed and certified (stamped) by a Registered Professional Engineer licensed in

File No. 023-01

August 15, 2023

Page 5

COASIAL RESOURCES

MANAGEMENT COUNCIL

- the State of Rhode Island. Stamp attached to the Design Figures.
- All structural elements shall be designed in accordance with Minimum Design Criteria C. or the Minimum Design Loads for Buildings and Other Structures, current Edition published by the American Society of Civil Engineers (ASCE) or the RI State Building Code as applicable. The dock design used all applicable codes and standards.
- d. All new or significantly expanded recreational boating facilities shall comply with the policies and prohibitions of § 1.3.1(R) of this Part (Submerged Aquatic Vegetation and Aquatic Habitats of Particular Concern). A SAV survey was completed at the site on July 15, 2021. The results indicated that no vegetation was observed within 150 feet of the shoreline. The proposed facility extends approximately 118 feet from the shoreline. Therefore, the proposed facility should not impact existing SAV. The SAV report is attached.

11. Residential and limited recreational docks, piers, and floats standards

- All residential and limited recreational dock designs shall be in accordance with Table 8 in § a. 1.3.1(D) of this Part (Minimum design criteria), but in no case shall any structural member be designed to withstand less than 50 year storm frequency, incolluding breaking wave conditions in accordance ASCE 7 (Minimum Design Loads For Buildings and Other Structures, 2016) and FEMA Manual 55 (Coastal Construction Manual, 2011) incorporated by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations. All design elements including the bathymetry shall be stamped by a Rhode Island registered Rhode Island Professional Engineer. All elements were design in accordance with the above and each design plan is stamped by a RI PE.
- b. Applications for all residential and limited recreational boating facilities shall indicate all work associated with these structures including at a minimum: a bottom survey showing water-depth contour lines and sediment types along the length of the proposed structure the seaward and landward extent of any SAV or coastal wetland vegetation present at the site, the permitted/authorized dimensions of any CRMC buffer zone and/or access way, as well as all associated work involved in accessing the proposed facility. All pathways, boardwalks, and cutting or filling of coastal features shall be specified. All such work shall be in accordance with applicable standards in §§ 1.3.1(B) and 1.3.1(C) of this Part. All of the above work shall be certified by a Professional Engineer licensed in the State of Rhode Island. Design work was completed in accordance with the above requirements. All plans are stamped by a RIPE.
- Fixed structures which are for pedestrian access only shall be capable of supporting forty (40) C. pounds per square foot live load as well as their own dead weight; floating structures shall be capable of supporting a uniform twenty (20) pounds per square foot live load, or a concentrated load of four hundred (400) pounds. A written certification by the designer that the structure is designed to support the above design loads shall be included with the application. The fixed and floating structures were designed using the design basis stated above.
- d. No creosote shall be applied to any portion of the structure. There is no use of creosote on this

COASTAL NESOURCES MANAGEMENT COUNCIL

File No. 023-01 August 15, 2023

Page 6

project.

- e. A residential or limited recreational boating facility shall be a maximum of four (4) feet wide, whether accessed by a fixed pier or float. The terminal float size shall not exceed one hundred fifty (150) square feet and may be reviewed as a Category A application. Residential boating facilities shared by owners of waterfront property may have a maximum of two (2) terminal floats not to exceed a combined total terminal float area of three-hundred (300) square feet. Such applications may be reviewed as a Category A application. In excessive fetch areas only, the terminal float size shall not exceed two hundred (200) square feet and shall be reviewed as a Category B application. The combined terminal float size for shared residential boating facilities shall not exceed three-hundred (300) square feet regardless of fetch. In the absence of a terminal float, a residential boating facility may include a fixed terminal T or L section, no greater than four (4) by twenty (20) feet in size. The proposed facility includes a 4 ft wide fixed dock, 3 ft wide ramp, and an 8 ft by 18.75 ft (150 sf) terminal float. No T or L sections are planned as part of this project.
- f. All new or replacement floats shall utilize floatation that was specifically fabricated for marine use and warranted by its manufacturer for such use. Foam billets or foam bead shall not be utilized unless they are completely encapsulated within impact resistant plastic. The terminal float will be constructed using impact resistant plastic floats drums specifically designed and manufactured or this use.
- Where possible, residential boating facilities shall avoid crossing coastal wetlands. In accordance with \$1.3.1(Q) of this Part, those structures that propose to extend beyond the limit of emergent vegetative wetlands are considered residential boating facilities.
 Facilities shall be located along the shoreline so as to span the minimal amount of wetland possible. Facilities spanning wetlands shall be elevated a minimum of four (4) feet above the marsh substrate to the bottom of the stringers, or constructed at a 1:1 height to width ratio. Construction in a coastal wetland shall be accomplished by working out from completed sections. When pilings are placed within coastal wetlands, only the immediate area of piling penetration may be disturbed. Pilings should be spaced so as to minimize the amount of wetland disturbance. No construction equipment shall traverse the wetland while the facility is being built. No wetland vegetation is present in the area of the proposed dock, therefore this condition is met.
- h. Owners are required to maintain their facilities in good working condition. Facilities may not be abandoned. The owner shall remove from tidal waters and coastal features any structure or portions of structures which are destroyed in any natural or man-induced manner. CRMC authorization for a recreational boating facility allows a dock owner to undertake minor repairs of approved facilities without further review, where such repairs will not alter the assented and/or permitted design, capacity, purpose or use of the facility. For the purposes of this policy, minor repairs shall include the repair or replacement of dock decking or planks, hand railings and support, and other activities of a similar and non-substantial nature. Minor repairs do not include alterations to the approved design of the facility, expansion of the facility, or work requiring the use of heavy machinery, such as a pile driver; these activities require that a Certification of Maintenance be obtained from the Council.
- i. Float ramps and other marine appurtenances or equipment shall not be stored on a coastal feature or any area designated as a CRMC buffer zone. The float-and ramp will be stored inplace.

File No. 023-01

August 15, 2023

SEP 1 2 2023

Page 7

COASTAL RESOURCES

MANAGEMENT COUNCIL

- j. The use of cribs for structural support shall be avoided. The use of cribs as support in tidal waters may be permitted given certain environmental design considerations. However, in these instances the size and square footage shall be minimized and not exceed six (6) feet by six (6) feet in footprint dimension and the structure cannot pose a hazard to navigation. When cribs are permitted for structural support, they must be removed when the useful life of the structure has ceased (e.g. the structure is no longer used as a means of accessing tidal waters). There are no cribs being installed as part of this project.
- k. Residential and limited recreational boating facilities shall not
 - (1) intrude into the area within twenty-five (25) feet of an extension of abutting property lines unless: *The proposed facility is located 26 feet from property line extensions therefore this requirement is met.*
 - (2) it is to be common structure for two or more adjoining owners, concurrently applying or
 - a letter or letters of no objection from the affected owner or owners are forwarded to the CRMC with the application.
 - (4) In the event that the applicant must seek a variance to this standard, the variance request must include a plan prepared by a RI registered Land Surveyor which depicts the relationship of the proposed facility to the effected property line(s) and their extensions.
- I. Residential and limited recreational boating facilities shall not extend beyond that point which is:
 - (1) 25% of the distance to the opposite shore (measured from mean low water), or
 - (2) fifty (50) feet seaward of mean low water, whichever is the lesser. The proposed facility extends 92 feet beyond the MLW contour at the center line of the dock. The dock length was increase beyond the standard to allow adequate water depth (minimum of 18 inches) at the terminal float. A variance from the 50 ft standard is made below as described at the end of this narrative.
- M. All residential and limited recreational docks, piers, and floats shall meet the setback policies and standards contained in municipal harbor management plans and/or harbor ordinances approved by the Council. However, in all cases, residential and limited recreational docks, piers, and floats shall be setback at least fifty (50) feet from approved mooring fields and three-times the U.S. Army Corps of Engineers authorized project depth from federal navigation projects (e.g., navigation channels and anchorage areas). We are not aware of any mooring fields in the area of the proposed dock.
- n. No sewage, refuse, or waste of any kind may be discharged from the facility or from any vessel utilizing it.
- o. A Council Assent for a residential or limited recreational boating facility permits the owner to

SEP 12 2023

MANAGEMENT COUNCIL

undertake minor repairs of approved facilities without further review, where such repairs will not alter the assented and/or permitted design, capacity, purpose or use of the facility. For the purposes of this section, minor repairs shall include the repair or replacement of dock decking or planks, hand railings and support, and other activities of a similar and non-substantial nature. Minor repairs do not include alterations to the approved design of the facility, expansion of the facility, or work requiring the use of heavy machinery (such as a pile driver); these activities require that a Certification of Maintenance be obtained from the Council in accordance with § 1.3.1(N) of this Part. Residential boating facilities shall be in continuous and uninterrupted use to meet this standard, in accordance with permit conditions.

- P. Materials used for the construction of residential and limited recreational boating facilities shall not include steel or concrete piles. *The proposed dock is to be constructed using southern Yellow Pine piles*.
- q. The surface of the dock, pier and float shall be designed in a manner which provides safe traction and allows for the appropriate drainage of water. *The deck is to consist of wood or synthetic deck boards with air gap between adjacent boards.*
- r. Geologic site conditions shall exist which are appropriate for driven pile structural support. No borings have been completed for this project. Based on discussions with a local dock builder the area is underlain by silty or sandy soils.
- S. As part of a residential or limited recreational boating facility, the terminal float may be designed such that it facilitates the access of small vessels such as kayaks, dinghies, personal water craft, etc., onto the float, provided that all other programmatic requirements are met. Mechanical apparatus to accomplish this shall not exceed twenty-four (24) inches in height from the top of the float. *No mechanical devices are proposed for installation on the terminal float.*
- t. All residential and limited recreational docks shall have the centerline of the structure between its most seaward and most landward portion designated on the plans with State Plane Coordinates (NAD83). A WAAS enabled GPS system with an accuracy of +1-3 meters shall be considered acceptable. The Executive Director shall have the discretion to require greater accuracy. At the center of the pier at the eastern (landside) terminus is to be located at State Plane Coordinate Northing: 325775.615 and Easting: 111518.527. At the center of the pier at the western (outboard) terminus is to be located at State Plane Coordinate Northing: 325692.301 and Easting: 111617.052.
- U. Recreational boating facilities other than marinas and those facilities associated with residential development, where applicable, shall follow the design standards contained herein including those described in Table 8 in § 1.3.1(D) of this Part. The design of the proposed dock follows the design basis contained in Table 8.
- v. Lateral access shall be provided under, around or over as appropriate for the site conditions at all new residential docks. *The proposed deck elevation has been set at Elev. 7.0 MLW to allow lateral access between the bottom of the stringers and grade*
- w. In order to minimize impacts to existing areas of submerged aquatic vegetation (SAV)

Page 9
COASTAL RESOURCES
MANAGEMENT COUNCIL

File No. 023-01 August 15, 2023

habitat, new residential boating facilities or modifications to existing residential boating facilities shall be designed in accordance with the guidelines and standards contained within § 1.3.1(R) of this Part, as most recently revised. Facilities shall be located along the shoreline so as to impact the minimal amount of habitat possible. No SAV observed during SAV survey, see attached report.

- X. The long-term docking of vessels at a recreational boating facility shall be prohibited over SAV. Such facilities shall be used for touch and go only.
- y All residential and limited recreational docks shall be certified by the design engineer that it was constructed according to the approved plans within typical marine construction standards. The Executive Director shall have the discretion to require as-built survey plans of residential and limited recreational docks that includes property lines.
- z. All residential and limited recreational boating facilities must have affixed to them a registration plate and number located on the seaward face of the most seaward piling. If a facility does not have pilings and/or is generally a floating structure, or is built on crib supports, then the registration plate must be affixed to the seaward face of the most seaward dock or floating dock. Regardless of the type of residential or limited recreational boating facility structure, the registration plate and number must be permanently affixed to the facility on its most seaward face and be visible from the navigation channel or fairway to the structure at all times.

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SEP 12 2023

COASTAL RESOURCES
MANAGEMENT COUNCIL

VARIANCE REQUEST

We are requesting one variance for this project: 1) Proposed float location at 92 feet from the MLW contour and 118 ft to HTL.

Explanation:

1. The dock float terminus as proposed is located 92 feet beyond the MLW sediment contour which is greater than 50 ft standard (Standard 11.l.(2). This distance is required to meet the minimum depth of water at the float of 18 inches. The design has also incorporated a dock stop detail to prevent float from exceeding this standard.

1.1.7 Variances

A. Applicants requiring a variance from a standard shall make such request in writing and address the six criteria listed below in writing. The application shall only be granted a variance if the Council finds that the following six criteria are met.

- 1. The proposed alteration conforms with applicable goals and policies of the Coastal Resources Management Program. In my opinion the proposed structure confirms with the goals and policies of the Coastal Resources Management Program. The proposed dock allows access to coastal waters for a waterfront property owner using best practices to minimize impacts to the environment. Additionally, the terminal end of the dock is generally the same eastern extent as the existing docks installed at residences to the south of this shoreline.
- 2. The proposed alteration will not result in significant adverse environmental impacts or use conflicts, including but not limited to, taking into account cumulative impacts. The proposed dock will not significantly impact the coastal environment. The excess dock length consists of fixed deck support by timber piles. The impact due to the additional piles is small as a pile diameter is approximately 1 foot at the mud line and the increase length of dock will create more shading on the substrate however the deck elevation will be greater than 7 feet above the substrate so impacts should be minimal.
- 3. Due to conditions at the site in question, the applicable standard(s) cannot be met. *The pond sediment topography will not allow the 18 inches of water depth within 50 feet of MLW to be met.*
- 4. The modification requested by the applicant is the minimum variance to the applicable standard(s) necessary to allow a reasonable alteration or use of the site. In my opinion the variance request is the least impactful and minimum variances required to install the proposed dock.

SFP 1 2 2023

COASTAL RESOURCES
MANAGEMENT COUNCIL

- 5. The requested variance to the applicable standard(s) is not due to any prior action of the applicant or the applicant s predecessors in title. With respect to subdivisions, the Council will consider the factors as set forth in § 1.1.7(B) of this Part below in determining the prior action of the applicant. The variance request is not the result of previous actions by the current or past property owners.
- 6. Due to the conditions of the site in question, the standard(s) will cause the applicant an undue hardship. In order to receive relief from an undue hardship an applicant must demonstrate inter alia the nature of the hardship and that the hardship is shown to be unique or particular to the site. Mere economic diminution, economic advantage, or inconvenience does not constitute a showing of undue hardship that will support the granting of a variance. The variance request is required due to the physical conditions at the site and are not due to an owners preference. The hardship, if these variances are not granted, will be the inability to use their owned property for recreational boating and water access.



IMPACTS DUE TO SEA LEVEL RISE

We evaluated the impact of Sea Level Rise (SLR) on the proposed structure over the 50 year design life of the structure. This evaluation was based the NOAA sea level rise data for Newport as developed using the U.S. Army Corps of Engineers sea level rise calculator. Figure 1 presents the predicted SLR for the site.

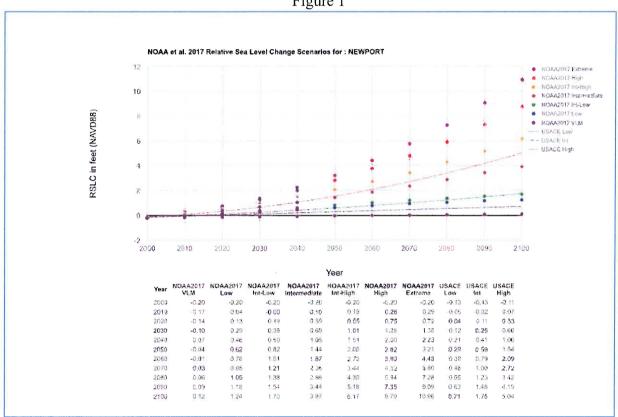


Figure 1

The predicted amount of SLR from 2020 to 2070 (50 year design life) is approximately:

Intermediate Curve: Army Corps of Eng 1.00 ft, NOAA 2017 2.36 ft High Curve: Army Corps of Eng 2.72 ft, NOAA 2017 4.82 ft

The area of the proposed dock structure is not considered to be subject to significant wave energy due to the limited fetch and water detphs. Thererfore the resiliency of the structure and planning for resiliency will be primarily dependent on SLR and impacts to the facility use and retainage of the float during a large storm event.

The proposed residential dock will be constructed primarily with timber and metal connectors. These materials deteriorate with exposure to the elements and require periodic maintenance and replacement.

The strategy to account for impacts to the structure due to SLR will be primarily:

1. Each time the float guide piles are replaced, the butt elevation of the piles should be increased to account for SLR and storm surge. The basis of determining a pile butt

SEP 1 2 2023

COASTAL RESOURCES
MANAGEMENT COUNCIL

- elevation should be based on the site Base Flood Elevation (site is currently in a FEMA AE zone with 11 ft base flood elevation) and considering anticipated SLR.
- 2. The deck elevation of the fixed pier portion of the structure should be raised through periodic maintenance as SLR occurs. This could include raising of pile bent framing during periods of deck framing replacement and or installation of replacement piles with corresponding increase in elevation of connection framing.
- 3. The landside fixed pier terminus will require relocations landward as SLR occurs. The relocation could be completed during periods of deck mantainence and would require relocating up the current site slope to a grade elevation that would allow pier access during high tide events.



File No. 023-01 August 15, 2023 Page 14