



# AVIZINIS

## ENVIRONMENTAL SERVICES INC

# COASTAL MANAGEMENT ACT ANALYSIS

**SITE LOCATION:**  
A.P. 12.1, Lot 54  
129-1 Main Street  
East Lyme, Connecticut

**PREPARED FOR:**  
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**PREPARED (October 28, 2024 Revised December 11, 2024) BY:**

Edward Avizinis, CPSS, PWS | President



Received

DEC 12 2024

Town of East Lyme  
Land Use

Casey Hogan, Environmental Scientist

# INTRODUCTION

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AES is writing this report to provide an analysis of the proposed commercial building redevelopment / propane tank relocation projects' compliance with Coastal Management Act standards CT General Law CHAPTER 444\* COASTAL MANAGEMENT (CGL 192 C. 353; 203 C. 364; 222 C. 269; 227 C. 71; 228 C. 187.) for the subject property, 129-1 Main Street, East Lyme, CT.

# EXISTING CONDITIONS

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The property presently exists as Boats, Inc. Marina, with features such as parking lot for boat storage, fenced area for fuel storage, a commercial building for boat maintenance, washing, storage, etc. and a pool. The subject lot is located within the Niantic area of East Lyme, CT. The large commercial building on the site encompasses much of the lot, with the majority of the remaining areas of the lot being paved for boat storage or otherwise facilitating boat storage and use. A fuel storage area is located directly north of the commercial building on-site (no change is noted to this feature).

The existing structure is constructed at grade and is at least partially within the AE FEMA Flood Zone. The lot is almost entirely impervious consisting of a parking lot, commercial building, a pool, and crushed stone. A small area northeast of the lot (shown as the 'East Lyme Town Ramp' adjacent to the developed shorefront (coastal headwall) is unpaved with lawn grass vegetation.

The subject lot is bordered on three sides by Smith Street to the west, Grand Street to the north, and Main Street to the south. To the east is the developed shorefront (coastal headwall) that abuts the estuarine embayment off-site. Across Main Street the Amtrak line runs parallel to Niantic Beach and the coastal waters of Niantic Bay with a rocky shorefront associated with the railroad. The subject property, as discussed, is adjacent to an estuarine embayment with a developed shorefront.

Within the 1934 aerial imagery, it is apparent that the subject lot was residentially developed with a large lawn. The railroad and Main Street appear to exist along with a series of buildings where the Boats, Inc. marina exists today. A town dock is noted in the approximate location as it is today. The 1957 imagery depicts the development of a number of structures on

the south-western portion of the subject lot. It is unclear whether the subject lot had been redeveloped entirely or reconfigured; however, it is notably changed. The town dock is notably expanded, as well as the areas adjacent to the railroad on the estuarine side (north).

Sometime between 1934 and 1957 the shoreline went from being natural beach to hardened with defined headwalls. Some fill appears to have been brought in and utilized to expand the land area into the estuary. By 1970 the marina appears to have expanded including an array of docks extending well into the estuary. The subject lot appears to have been redeveloped, though it is unclear from the imagery what existed on the lot at the time. The surrounding residential homes appear to be slowly redeveloping to accommodate the aquatic/commercial interests of the area. The 1974 imagery shows the subject lot being developed approximately in the configuration it exists today, with the commercial structure and parking lot being developed to some extent. The marina dock array has been reconfigured and expanded as well as the notably increased area utilized for boat storage. The 1985 imagery depicts the commercial structure as it is approximately noted today, along with the extent of the parking lot. Notable development changes occurring between 1974 and 2004 concerning the Boats, Inc. marina were the significant expansion of the marina facilities. No significant changes appear to occur between 2004 and the latest aerial imagery in 2021.

## PROPOSED CONDITIONS

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The proposed work involves the redevelopment of the subject lot involving the knock-down rebuild of a portion of one of the existing commercial structures and replacement with a new structure meeting the modern building code. Elements of the structure will be elevated and the structure will be flood proofed to meet requirements under the flood code, otherwise the new construction will be significantly similar to the building that is being removed except with modern technologies.

Also proposed is the temporary relocation of the propane tanks from the north side of the subject building southwest further landwards. The propane tanks are proposed to be permanently relocated south of the temporary location post-construction, landwards of the present location. There are no other significant changes as depicted in the plans pertaining to the proposed redevelopment designed by Cherenzia and Associates, Ltd for the subject lot.

For construction to occur, the temporary relocation of fuel storage tanks, the battery storage shed, power wash storage tank, and other features are necessary. Please see the attached plans from Cherenzia concerning such matters. These features will all be relocated back to the pre-existing location post-construction. The existing spill prevention plan will continue to be kept on hand during construction in the event of any issues. The wall surrounding the tank storage area (immediately north of the proposed knock-down-rebuild commercial structure location) may need to be removed to facilitate the removal of the tanks.

Construction access to the lot for the proposed work shall be obtained through access adjacent to Grand Street and any materials to be temporarily located on the lot for construction shall be located within the boat rack and crushed stone parking areas as designated on the attached plans.

# COASTAL RESOURCES REVIEW

The subject project was generally found to contain General Coastal Resources as defined under CGS Section 22a-93(7). The subject property of the proposed work is located within a Coastal Hazard Area (CGS Section 22a-93(7)(H)), Shorelands (CGS Section 22a-93(7)(M)) and has a Developed Shorefront (CGS Section 22a-93(7)(I)) area along the eastern bound. The project will only directly impact the Coastal Hazard Area and Shorelands General Coastal Resource Areas.

A number of Coastal Resources were determined to be adjacent to the subject property, including Coastal Waters (CGS Section 22a-93(5)), Estuarine Embayment (CGS Section 22a-93(7)(G)), and Shellfish Concentration Areas (CGS Section 22a-93(7)(M)). Coastal Resources off-site but within vicinity of the project include Beaches and Dunes (CGS Section 22a-93(7)(C)) and Rocky Shorefront (CGS Section 22a-93(7)(B)).

Below is a table from the CAM Application for the proposed work depicting the applicable resources areas relative to the subject property.

Coastal resources	On-site	Adjacent	Off-site but within the influence of project	Not Applicable
General coastal resources* - Definition: CGS Section 22a-93(7); Policy: CGS Section 22a-92(a)(2)	X			
Beaches & Dunes – Definition: CGS Section 22a-93(7)(C); Policy: CGS Sections 22a-92(b)(2)(C) and 22a-92(c)(1)(K)			X	
Bluffs & Escarpments – Definition: CGS Section 22a-93(7)(A); Policy: CGS Section 22a-92(b)(2)(A)				X
Coastal Hazard Area – Definition: CGS Section 22a-93(7)(H); Policy: CGS Sections 22a-92(a)(2), 22a-92(a)(5), 22a-92(b)(2)(F), 22a-92(b)(2)(J), and 22a-92(c)(2)(B)	X			
Coastal Waters, Estuarine Embayments, Nearshore Waters, Offshore Waters – Definition: CGS Sections 22a-93(5), 22a-93(7)(G), and 22a-93(7)(K), and 22a-93(7)(L) respectively; Policies: CGS Sections 22a-92(a)(2) and 22a-92(c)(2)(A)		X		
Developed Shorefront – Definition: CGS Section 22a-93(7)(I); Policy: 22a-92(b)(2)(G)	X			
Freshwater Wetlands and Watercourses – Definition: CGS Section 22a-93(7)(F); Policy: CGS Section 22a-92(a)(2)				X
Intertidal Flats – Definition: CGS Section 22a-93(7)(D); Policies: 22a-92(b)(2)(D) and 22a-92(c)(1)(K)				X
Islands – Definition: CGS Section 22a-93(7)(J); Policy: CGS Section 22a-92(b)(2)(H)				X
Rocky Shorefront – Definition: CGS Section 22a-93(7)(B); Policy: CGS Section 22a-92(b)(2)(E)			X	
Shellfish Concentration Areas – Definition: Section 22a-93(7)(N); Policy: CGS Section 22a-92(c)(1)(I)		X		
Shorelands – Definition: CGS Section 22a-93(7)(M); Policy: CGS Section 22a-92(b)(2)(I)	X			
Tidal Wetlands – Definition: CGS Section 22a-93(7)(E); Policies: CGS Sections 22a-92(a)(2), 22a-92(b)(2)(E), and 22a-92(c)(1)(B)				X

\* General Coastal Resource policy is applicable to all proposed activities



All standards for the areas to be directly impacted, adjacent areas, as well as the areas off-site but within the vicinity of the project area are addressed below.

## ON-SITE RESOURCES

### 1. COASTAL HAZARD AREA POLICIES

#### **CGS Section 22a-92:**

*(a)(2) To preserve and enhance coastal resources in accordance with the policies established by chapters 439, 440, 446i, 446k, 447, 474 and 477*

The proposed redevelopment project will serve to enhance the Coastal Hazard and Shorelands Areas by providing increased flood storage. The proposed design will address concerns with sea level rise impacts in a historically developed low-lying area by reinforcing the structure to meet modern requirements for structures within the flood zone. The proposed partially elevated and flood proofed design will meet modern building codes and generally be a large improvement over the existing building which is constructed at grade and could become inundated and subsequently destroyed in future storm flooding events.

*(a)(5) To consider in the planning process the potential impact of a rise in sea level, coastal flooding and erosion patterns on coastal development so as to minimize damage to and destruction of life and property and minimize the necessity of public expenditure and shoreline armoring to protect future new development from such hazard*

As previously mentioned, the removal of the existing structure and replacement with a structure designed to meet modern building and flood codes supports this standard directly. The proposed work will allow for floodwaters to pass beneath and around the proposed structure with minimal damage in the event of a flooding event as compared to the existing conditions. The proposed work most directly supports this standard and will serve to improve the coastal resiliency of this historic area. Notably, the proposed permanent relocation of the propane tanks moves the features landwards of the present location, though they remain within the coastal hazard area.

*(b)(2)(F) To manage coastal hazard areas so as to ensure that development proceeds in such a manner that hazards to life and property are minimized and to promote nonstructural solutions to flood and erosion problems except in those instances where structural alternatives*

*prove unavoidable and necessary to protect commercial and residential structures and substantial appurtenances that are attached or integral thereto, constructed as of January 1, 1995, infrastructural facilities or water dependent uses*

As previously mentioned, the existing structure is within the AE flood zone and is presently a hazard to life and property should it become inundated during a storm event. This hazard shall be removed by the proposed work which will replace the existing structure with a structure designed to meet modern building and flood codes. This restructuring will directly support this standard to minimize hazards to life and property.

## **2. SHORELANDS POLICIES**

### ***CGS Section 22a-92:***

*(b)(2)(I) To regulate shoreland use and development in a manner which minimizes adverse impacts upon adjacent coastal systems and resources*

The proposed work, as previously mentioned, will remove an existing hazard from the Shorelands / Coastal Hazard Area and replace it with a better engineered structure which is designed to minimize impacts to life, property, the surrounding coastal systems and resources.

## **3. DEVELOPED SHOREFRONT**

### ***CGS Section 22a-92:***

*(b)(2)(G) To promote, through existing state and local planning, development, promotional and regulatory programs, the use of existing developed shorefront areas for marine-related uses, including but not limited to, commercial and recreational fishing, boating and other water-dependent commercial, industrial and recreational uses*

The proposed project will not impact the developed shorefront associated with the Boats, Inc. marina, nor any other developed shorefronts. No part of this proposed work will negatively impact the ability of the developed waterfront to support the uses defined in this standard.

# ADJACENT

## 1. COASTAL WATERS AND ESTUARINE EMBAYMENT

### **CGS Sections 22a-92:**

*(a)(2) To preserve and enhance coastal resources in accordance with the policies established by chapters 439, 440, 446i, 446k, 447, 474 and 477*

The proposed work will have no direct impact upon the coastal waters of Niantic Bay or the estuarine embayment as the precipitation from the site is directed to a catch basin on-site that allows stormwater to enter the Town of East Lyme municipal stormwater infrastructure. The temporary relocation of the boat wash area is accommodated by a drain line that is connected to a tank that will be pumped out and specifically will not contribute boat wash graywater to the existing drainage system that directs stormwater into the Niantic River. No precipitation from the site is expected to cause any adverse effects to the environment as all potential contaminant sources are properly housed/contained to prevent interaction with precipitation. Contingency plans exist on-site should a spill or otherwise occur.

*(c)(2)(A) To manage estuarine embayments so as to ensure that coastal uses proceed in a manner that assures sustained biological productivity, the maintenance of healthy marine populations and the maintenance of essential patterns of circulation, drainage and basin configuration; to protect, enhance and allow natural restoration of eelgrass flats except in special limited cases, notably shellfish management, where the benefits accrued through alteration of the flat may outweigh the long-term benefits to marine biota, waterfowl, and commercial and recreational finfisheries*

The subject property is located adjacent to an estuarine embayment / coastal waters, though notably the proposed project area is not. Protection of these resource areas for the above stated functions described above is upheld by the environmental protections (erosion controls, emergency spill plan, limited demolition, removal and relocation of chemical storage prior to construction, containment and removal plans for the boat wash graywater/effluent, etc.) proposed within the Coastal Hazard Area and Shorelands Areas where the work is proposed. All of the resource areas are proposed to be enhanced via removal of an existing flood hazard, thereby protecting the estuarine waters in the event of stormwater event.



## 2. SHELLFISH CONCENTRATION AREAS

### **CGS Section 22a-92:**

*(c)(1)(I) To manage the state's fisheries in order to promote the economic benefits of commercial and recreational fishing, enhance recreational fishing opportunities, optimize the yield of all species, prevent the depletion or extinction of indigenous species, maintain and enhance the productivity of natural estuarine resources and preserve healthy fisheries resources for future generations*

The proposed project is not expected to impact any of the above-stated standards due to the project's location relative to the subject resource area. The project is expected to support the nearby resource areas by adhering to the standards pertaining to the resources found in the project area (Coastal Hazard Area, Shorelands).

## OFF-SITE BUT WITHIN INFLUENCE OF PROJECT

### 1. BEACHES AND DUNES

#### **CGS Sections 22a-92:**

*(b)(2)(C) To preserve the dynamic form and integrity of natural beach systems in order to provide critical wildlife habitats, a reservoir for sand supply, a buffer for coastal flooding and erosion, and valuable recreational opportunities; to ensure that coastal uses are compatible with the capabilities of the system and do not unreasonably interfere with natural processes of erosion and sedimentation, and to encourage the restoration and enhancement of disturbed or modified beach systems*

The proposed work is not expected to interfere with the natural processes of erosion and sedimentation due to the lack of proposed changes to the offsite Niantic Beach. No impacts are proposed to Niantic Beach directly, nor any other Beach / Dune systems nearby as a part of this project.

*(c)(1)(K) To require as a condition in permitting new coastal structures, including but not limited to, groins, jetties or breakwaters, that access to, or along, the public beach below mean high water must not be unreasonably impaired by such structures and to encourage the removal of illegal structures below mean high water which unreasonably obstruct passage along the public beach*

No such coastal structures are proposed as a part of this project. The proposed structure exists well outside the mean high watermark within an upland location.

## 2. ROCKY SHOREFRONT

### **CGS Section 22a-92:**

*(b)(2)(B) To manage rocky shorefronts so as to ensure that development proceeds in a manner which does not irreparably reduce the capability of the system to support a healthy intertidal biological community; to provide feeding grounds and refuge for shorebirds and finfish, and to dissipate and absorb storm and wave energies*

No part of this project proposes any direct impacts to the rocky shorefront associated with the Amtrak railway and Niantic Beach, nor any other rocky shorefronts. No part of this project is expected to impact any of the above-stated abilities of the rocky shorefront.

## CLOSING

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Thank you for the opportunity to provide this service. Please review the attached information and map representing the coastal resource areas both on the subject lot and within the surrounding area. Please do not hesitate to let me know if you have any questions.

# SITE MAP

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- 1) COASTAL AREA MAP (OCTOBER 2024)



## COASTAL AREA MAP

A.P. 12.1 Lot 54 | 129-1 Main Street  
East Lyme, Connecticut

### LEGEND

-  COASTAL HAZARD AREA (BMA FLOOD / ONE AF AND 1P) (SEC. 22A-937M(U))
-  ROCKY SHOREFRONT (SEC. 22A-937M(B))
-  ESTUARINE LAMBMENT / POTENTIAL SILTILUSH CONCENTRATION AREA (SEC. 22A-937M(G), (U))
-  BEACHES AND DUNES (SEC. 22A-937M(C))
-  DEVELOPED SHOREFRONT (SEC. 22A-937M(D))
-  COASTAL WATERS / POTENTIAL SILTILUSH CONCENTRATION AREA (SEC. 22A-936, 937M(N))
-  PROPERTY LINE



#### General Notes:

1. This map should not be interpreted as a survey quality graphic. It is designed for preliminary planning purposes only. AES recommends consultation with a Professional Land Surveyor for an accurate site plan.
2. Property lines as depicted on this map have been approximated from plan maps available from the town assessor's online database.
3. Aerial photograph base map and other data layers acquired from the CT DEEP and CTGIS database.
4. Site features located with a Juniper Goode Submetric GNSS receiver with SWmaps data collection software. Non-delineated wetland edges have not been field verified and are depicted for graphic purposes only.

Assessment performed by:

Edward J. Avizinis, CPSS, PWS

10/28/2024

