Date: January 22, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: 56 Goulart Memorial Drive – Request for Certificate of Compliance –

DEP# 023-023-0134, Fairhaven CON 023-198

DOCUMENTS REVIEWED

• Request for Certificate of Compliance and associated documents

- Order of Conditions dated October 8, 1985
- Notice of Intent dated September 3, 1985
- 310 CMR 10.00
- Fairhaven Wetlands Bylaw (Chapter 192)

RESOURCE AREAS ON/NEAR SITE

- Salt Marsh
- Coastal Beach
- Buffer Zone
- Land Under the Ocean
- Land Containing Shellfish
- Land Subject to Coastal Storm Flowage

- Salt Marsh: 10.32
 - (3) A proposed project in a salt marsh, on lands within 100 feet of a salt marsh, or in a body of water adjacent to a salt marsh shall not destroy any portion of the salt marsh and shall not have an adverse effect on the productivity of the salt marsh. Alterations in growth, distribution and composition of salt marsh vegetation shall be considered in evaluating adverse effects of productivity.
 - (4) A small project within a saltmarsh, such as an elevated walkway or other structure which has no adverse effects other than blocking sunlight from the underlying vegetation for a portion of each day may be permitted if such a project complies with all other applicable requirements of [the regulations for coastal wetlands].
- Coastal Beach: 10.27
 - (3) Any project on a coastal beach...shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent or downdrift coastal beach.
 - (5) Beach nourishment with clean sediment of a grain size compatible with that on the existing beach may be permitted.
- <u>Buffer Zone General Provisions</u>: 10.53(1) "For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. ... where prior development is extensive, may consider

measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of [the Act]. ... The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work."

• Land under the Ocean 10.25

- (5) Projects...which affect nearshore areas of land under the ocean shall not cause adverse effects by altering the bottom topography so as to increase storm damage or erosion of coastal beaches, coastal banks, coastal dunes, or salt marshes.
- (6) Projects...which affect land under the ocean shall if water-dependent be designed and constructed, using best available measures, so as to minimize adverse effects, and if non-water-dependent, have no adverse effects, on marine fisheries habitat or wildlife habitat caused by:
 - (a) alterations in water circulation;
 - (b) destruction of eelgrass (Zostera marina) or widgeon grass (Rupia maritina) beds;
 - (c) alterations in the distribution of sediment grain size;
 - (d) changes in water quality, including, but not limited to, other than natural fluctuations in the level of dissolved oxygen, temperature or turbidity, or the addition of pollutants; or
 - (e) alterations of shallow submerged lands with high densities of polychaetes, mollusks or macrophytic algae.

• Land Containing Shellfish 10.34

- (4) ...any project on land containing shellfish shall not adversely affect such land or marine fisheries by a change in the productivity of such land caused by:
 - (a) alterations of water circulation;
 - (b) alterations in relief elevation;
 - (c) the compacting of sediment by vehicular traffic;
 - (d) alterations in the distribution of sediment grain size;
 - (e) alterations in natural drainage from adjacent land; or
 - (f) changes in water quality, including, but not limited to, other than natural fluctuations in the levels of salinity, dissolved oxygen, nutrients, temperature or turbidity, or the addition of pollutants
- (5) ...projects which temporarily have an adverse effect on shellfish productivity but which do not permanently destroy the habitat may be permitted if the land containing shellfish can and will be returned substantially to its former productivity in less than one year from the commencement of work, unless an extension of the Order of Conditions is granted, in which case such restoration shall be completed within one year of such extension
- LSCSF General Provisions: 10.24(1) "If the issuing authority determines that a resource area is significant to an interest identified in [the Act]...,the issuing authority shall impose such conditions as are necessary to contribute to the protection of such interests."

PROJECT SUMMARY

The approved project was for the construction of a steel frame boat storage facility

COMMENTS

• The property is registered land, so all issued documents must be signed with wet ink signatures, not electronically.

RECOMMENDATION

I recommend issuing a Certificate of Compliance for complete certification for SE 023-0134.

Date: January 22, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: 56 Goulart Memorial Drive – Request for Certificate of Compliance –

DEP# 023-023-0299, Fairhaven CON 023-199

DOCUMENTS REVIEWED

Request for Certificate of Compliance and associated documents

- Order of Conditions dated May 23, 1990
- Notice of Intent dated April 30, 1990
- 310 CMR 10.00
- Fairhaven Wetlands Bylaw (Chapter 192)

RESOURCE AREAS ON/NEAR SITE

- Salt Marsh
- Coastal Beach
- Buffer Zone
- Land Under the Ocean
- Land Containing Shellfish
- Land Subject to Coastal Storm Flowage

- Salt Marsh: 10.32
 - (3) A proposed project in a salt marsh, on lands within 100 feet of a salt marsh, or in a body of water adjacent to a salt marsh shall not destroy any portion of the salt marsh and shall not have an adverse effect on the productivity of the salt marsh. Alterations in growth, distribution and composition of salt marsh vegetation shall be considered in evaluating adverse effects of productivity.
 - (4) A small project within a saltmarsh, such as an elevated walkway or other structure which has no adverse effects other than blocking sunlight from the underlying vegetation for a portion of each day may be permitted if such a project complies with all other applicable requirements of [the regulations for coastal wetlands].
- Coastal Beach: 10.27
 - (3) Any project on a coastal beach...shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent or downdrift coastal beach.
 - (5) Beach nourishment with clean sediment of a grain size compatible with that on the existing beach may be permitted.
- <u>Buffer Zone General Provisions</u>: 10.53(1) "For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. ... where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the

interest of [the Act]. ... The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work."

• Land under the Ocean 10.25

- (5) Projects...which affect nearshore areas of land under the ocean shall not cause adverse effects by altering the bottom topography so as to increase storm damage or erosion of coastal beaches, coastal banks, coastal dunes, or salt marshes.
- (6) Projects...which affect land under the ocean shall if water-dependent be designed and constructed, using best available measures, so as to minimize adverse effects, and if non-water-dependent, have no adverse effects, on marine fisheries habitat or wildlife habitat caused by:
 - (a) alterations in water circulation;
 - (b) destruction of eelgrass (Zostera marina) or widgeon grass (Rupia maritina) beds;
 - (c) alterations in the distribution of sediment grain size;
 - (d) changes in water quality, including, but not limited to, other than natural fluctuations in the level of dissolved oxygen, temperature or turbidity, or the addition of pollutants; or
 - (e) alterations of shallow submerged lands with high densities of polychaetes, mollusks or macrophytic algae.

• Land Containing Shellfish 10.34

- (4) ...any project on land containing shellfish shall not adversely affect such land or marine fisheries by a change in the productivity of such land caused by:
 - (a) alterations of water circulation;
 - (b) alterations in relief elevation;
 - (c) the compacting of sediment by vehicular traffic;
 - (d) alterations in the distribution of sediment grain size;
 - (e) alterations in natural drainage from adjacent land; or
 - (f) changes in water quality, including, but not limited to, other than natural fluctuations in the levels of salinity, dissolved oxygen, nutrients, temperature or turbidity, or the addition of pollutants
- (5) ...projects which temporarily have an adverse effect on shellfish productivity but which do not permanently destroy the habitat may be permitted if the land containing shellfish can and will be returned substantially to its former productivity in less than one year from the commencement of work, unless an extension of the Order of Conditions is granted, in which case such restoration shall be completed within one year of such extension
- <u>LSCSF General Provisions</u>: 10.24(1) "If the issuing authority determines that a resource area is significant to an interest identified in [the Act]...,the issuing authority shall impose such conditions as are necessary to contribute to the protection of such interests."

PROJECT SUMMARY

 The permitted project was: to install an approved fuel distribution system for diesel and gasoline to boats. The tanks are existing and will be completely repiped and wired. The double containment pipes will be buried 18 in. from the tanks to the pier. To install PVC conduit 18 in. underground from existing boat storage rack to proposed light pole for power and communications.

COMMENTS

 The property is registered land, so all issued documents must be signed with wet ink signatures, not electronically.

RECOMMENDATION

I recommend issuing a Certificate of Compliance for complete certification for SE 023-0299.

Date: January 22, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: 56 Goulart Memorial Drive – Request for Certificate of Compliance –

DEP# 023-023-0805, Fairhaven CON 023-200

DOCUMENTS REVIEWED

• Request for Certificate of Compliance and associated documents

- Order of Conditions dated March 14, 2005
- 310 CMR 10.00

• Fairhaven Wetlands Bylaw (Chapter 192)

RESOURCE AREAS ON/NEAR SITE

- Salt Marsh
- Coastal Beach
- Buffer Zone
- Land Under the Ocean
- Land Containing Shellfish
- Land Subject to Coastal Storm Flowage

- Salt Marsh: 10.32
 - (3) A proposed project in a salt marsh, on lands within 100 feet of a salt marsh, or in a body of water adjacent to a salt marsh shall not destroy any portion of the salt marsh and shall not have an adverse effect on the productivity of the salt marsh. Alterations in growth, distribution and composition of salt marsh vegetation shall be considered in evaluating adverse effects of productivity.
 - (4) A small project within a saltmarsh, such as an elevated walkway or other structure which has no adverse effects other than blocking sunlight from the underlying vegetation for a portion of each day may be permitted if such a project complies with all other applicable requirements of [the regulations for coastal wetlands].
- Coastal Beach: 10.27
 - (3) Any project on a coastal beach...shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent or downdrift coastal beach.
 - (5) Beach nourishment with clean sediment of a grain size compatible with that on the existing beach may be permitted.

• <u>Buffer Zone General Provisions</u>: 10.53(1) "For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. ... where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of [the Act]. ... The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work."

• Land under the Ocean 10.25

- (5) Projects...which affect nearshore areas of land under the ocean shall not cause adverse effects by altering the bottom topography so as to increase storm damage or erosion of coastal beaches, coastal banks, coastal dunes, or salt marshes.
- (6) Projects...which affect land under the ocean shall if water-dependent be designed and constructed, using best available measures, so as to minimize adverse effects, and if non-water-dependent, have no adverse effects, on marine fisheries habitat or wildlife habitat caused by:
 - (a) alterations in water circulation;
 - (b) destruction of eelgrass (Zostera marina) or widgeon grass (Rupia maritina) beds;
 - (c) alterations in the distribution of sediment grain size;
 - (d) changes in water quality, including, but not limited to, other than natural fluctuations in the level of dissolved oxygen, temperature or turbidity, or the addition of pollutants; or
 - (e) alterations of shallow submerged lands with high densities of polychaetes, mollusks or macrophytic algae.

• Land Containing Shellfish 10.34

- (4) ...any project on land containing shellfish shall not adversely affect such land or marine fisheries by a change in the productivity of such land caused by:
 - (a) alterations of water circulation;
 - (b) alterations in relief elevation;
 - (c) the compacting of sediment by vehicular traffic;
 - (d) alterations in the distribution of sediment grain size;
 - (e) alterations in natural drainage from adjacent land; or
 - (f) changes in water quality, including, but not limited to, other than natural fluctuations in the levels of salinity, dissolved oxygen, nutrients, temperature or turbidity, or the addition of pollutants
- (5) ...projects which temporarily have an adverse effect on shellfish productivity but which do not permanently destroy the habitat may be permitted if the land containing shellfish can and will be returned substantially to its former productivity in less than one year from the commencement of work, unless an extension of the Order of Conditions is granted, in which case such restoration shall be completed within one year of such extension
- LSCSF General Provisions: 10.24(1) "If the issuing authority determines that a resource area is significant to an interest identified in [the Act]...,the issuing authority shall impose such conditions as are necessary to contribute to the protection of such interests."

PROJECT SUMMARY

• The original file was unable to be located, but based on the special conditions, it appears the work was for maintenance and new dredging. The extent and location are unclear without locating the approved plans.

COMMENTS

- The property is registered land, so all issued documents must be signed with wet ink signatures, not electronically.
- The extent of work completed is unclear. A special condition in the permit states that the Commission could require an as-built plan. Though, any dredging that was completed in the mid-2000s has likely silted in by now.

RECOMMENDATION

 I recommend issuing a Certificate of Compliance for an Invalid Order of Conditions for SE 023-0805.

Date: January 22, 2020

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: Hiller Avenue and Timothy Street, Assessors Map 28C, Lots 71 & 71A - Notice

of Intent - DEP#023-1297, Fairhaven CON-19-051

DOCUMENTS REVIEWED

Notice of Intent and associated attachments submitted

- 310 CMR 10.00
- Fairhaven Wetlands Bylaw (Chapter 192)
- Peer review by GCG Associates dated December 30, 2019
- Exhibit plan dated December 3, 2020
- Revised plans dated December 3, 2020
- Revised stormwater report dated January 10, 2020
- Peer review reply letter dated January 13, 2020
- Supplemental stormwater letter dated December 28, 2020
- Revised plans dated January 12, 2021

RESOURCE AREAS ON/NEAR SITE

- Bordering Vegetated Wetland
- Buffer Zone

- Bordering Vegetated Wetland: 10.55(4)
 - (a) work in a Bordering Vegetated Wetland shall not destroy or otherwise impair any portion of the BVW
 - (b) The ConCom may permit the loss of up to 5000 square feet of BVW when said area is replaced IF:
 - 1. The area is equal;
 - 2. The ground water and surface elevation are approximately equal;
 - 3. The overall horizontal configuration and location are similar;
 - 4. There is an unrestricted hydraulic connection to the same water body or waterway;
 - 5. It is in the same general area of the water body;
 - 6. At least 75% of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons; and
 - 7. The replacement area is provided in a manner which is consistent with all other regs in 310 CMR 10.00.
 - (c) The ConCom may permit the loss of a portion of BVW when;

- 1. Said portion has a surface area less than 500 square feet;
- 2. Said portion extends in a distinct linear configuration ("finger-like") into adjacent uplands; and
- 3. In the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposal.
- (d) No project may be permitted which will have any adverse effect on specified habitat sites of rare species
- (e) No work shall destroy or otherwise impair any Area of Critical Environmental Concern
- <u>Buffer Zone General Provisions</u>: 10.53(1) "For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. ... where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of [the Act]. ... The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work."

PROJECT SUMMARY

• The Notice of Intent was filed for the construction of paved roadways and stormwater management systems and the installation of utilities, including the placement of fill for the aforementioned work, for a proposed 16-lot subdivision.

COMMENTS

- The Fairhaven Wetlands Bylaw notes that the Commission must consider the effects of projects on the following wetland values:
 - Public or private water supply
 - Groundwater
 - Flood control
 - Erosion and sedimentation control
 - Storm damage prevention
 - Water pollution control
 - Fisheries
 - Wildlife habitat
 - Recreation
 - Aesthetics
 - Agriculture values
- From 310 CMR 10.00 Preface to the Wetlands Regulations, 2005 Revisions:
 - "Research on the functions of buffer zones and their role in wetlands protection has clearly established that buffer zones play an important role in preservation of the physical, chemical, and biological characteristics of the adjacent resource area. The potential for adverse impacts to resource areas from work in the buffer zone increases with the extent of the work and the proximity to the resource area."
 - "Extensive work in the inner portion of the buffer zone, particularly clearing of natural vegetation and soil disturbance is likely to alter the physical characteristics of resource areas by changing their soil composition, topography, hydrology, temperature, and the amount of light received. Soil and water chemistry within resource areas may be adversely affected by work in the buffer zone. Alterations to biological conditions in adjacent resource areas may include changes in plant community composition and

structure, invertebrate and vertebrate biomass and species composition, and nutrient cycling. These alterations from work in the buffer zone can occur through the disruption and erosion of soil, loss of shading, reduction in nutrient inputs, and changes in litter and soil composition that filters runoff, serving to attenuate pollutants and sustain wildlife habitat within resource areas."

- From 310 CMR 10.00 Preface to the 1983 Regulations:
 - "Any project undertaken in close proximity to a wetlands resource area has a high likelihood of resulting in some alteration of that area, either immediately or as a consequence of daily operation of the completed project. The problem becomes particularly severe when Bordering Vegetated Wetlands are involved; inadvertent damage to these sensitive areas can easily occur and in many instances is irreparable."
- From the MACC Wetlands Buffer Zone Guidebook:
 - Most studies find that buffers dominated by trees or a mix of vegetative cover types, structure, and age classes are most effective in removing nutrients and sediment pollution.
 - Vegetated buffers between 30 and 100+ feet appear to be effective in reducing sediments, phosphorus, and nitrogen with 75% removal rate.
 - Additional benefits of vegetated buffers:
 - phosphorus and sediment removal capacity is most effective within 50 feet of the resource area.
 - nitrogen removal capacity is most effective within at least 100 feet of the resource area.
 - vegetated buffer width of minimum 50 feet is most effective to maintenance of water temperature.
 - buffers of less than 50 feet are more susceptible to degradation by human disturbance. Buffers of 25 feet or less do not function in a meaningful way to reduce disturbance to the adjacent wetland.
 - During flood events, buffer zones become backup flood storage areas and minimize water quality and storm damage impacts from floods and severe storm events.
 - When reviewing a project in the buffer zone, it is important to consider:
 - Will the project substantially reduce the capacity of the buffer zone to slow, detain, filter, store, and infiltration runoff prior to reaching the resource area?
 - Will the project substantially reduce the capacity of the buffer zone to protect wildlife habitat functions of the wetland resource area?
 - Will the project substantially reduce existing buffer zone vegetation that provides protection to resource area vegetation, thus potentially reducing the functional capacity of the adjacent resource area?
 - Is the existing or proposed undisturbed buffer zone suitable to maintain sediment, pollutant, pathogen, and nutrient removal capacity of the adjacent resource area?
 - Can the project be reasonably shifted or modified to allow work and also the necessary buffer zone protection of resource area sediment, pollutant, pathogen, and nutrient removal, flood control, storm damage prevention, and protection of wildlife habitat functions?
- Both proposed detention ponds are located directly next to the wetlands on the property and portions of all three roadways fall within the 100-foot buffer zone to the wetlands. 10 of the 16 proposed house lots fall within the jurisdiction of the Conservation Commission.

- Several of the lots are comprised of predominantly wetland (e.g. Lots 8, 9, and 12), which may
 cause encroachment into the wetlands and potential for violations in the future. Many of these
 lots will likely need permits through the Conservation Commission for any proposed future
 work, whether that is the construction of homes or any additions to homes already constructed,
 such as decks, pools, or patios.
- The amount of work proposed currently and work that will be proposed in the future comprises a significant portion of the inner buffer zone. Significantly reducing the amount of vegetation, especially mature trees, in the buffer zone can have negative impacts on the wetland, such as increased temperatures and a reduction in pollutant filtration. Significantly increasing the number of homes in the area has the potential to increase the amount of fertilizers, herbicides, and pesticides that runoff into the wetland.
- Several of the proposed driveways and portions of the roadways are within 25 to 50 feet of the wetland, which increases the potential for the alteration of hydrology in the wetland.
- Undisturbed buffer zones are important to protect the wetland's ability to perform its
 ecosystem functions: public or private water supply, groundwater supply, flood control, storm
 damage prevention, prevention of pollution, and wildlife habitat.
- Currently, the project proposes to clear a significant portion of the 100-foot buffer zone to the BVW, right up to the wetland line in some cases.
- There is also a significant amount of fill proposed, some of which is proposed directly adjacent to the wetlands.
- It appears some of the stormwater comments from the peer reviewer were not addressed in the most recent information from the applicant:
 - O&M Plan does not include a budget, though the most recent response to the peer review does note that one will be provided to the DPW Superintendent for his review and approval.
 - Insulating sewer mains per MassDEP's "Guideline for the Design, Construction,
 Operation, and Maintenance of Small Wastewater Treatment Facilities with Land
 Disposal", Section IX Design Criteria, page 51.
 - Solid concrete sump in the forebays are not recommended. Water would pond at the bottom of the sump and created a mosquito breeding ground. A sediment forebay is intended to exfiltrated and flow through the earth berm/spillway to the basin and expected to draw down within 72 hours. Hence the 2-feet seasonal high ground water separation as required by Mass Stormwater Handbook.
- The stormwater peer reviewer agreed to the assessment of the area using 'B' soils. USDA soil maps show the soil types for the area to be 'C' and 'D' soils.
- The revised exhibit plan shows the following:
 - Highlights areas to be cleared within 15 feet of the wetland line
 - Total square footage for entire project: 6,222 square feet of buffer zone between 0 and 15 feet of the wetland line
 - Proposes 7,614 square feet of additional wetland to be added while preserving mature trees
 - Added a note regarding lots 5-7 and a 100-foot setback line from the property line on the southern portion of the plan.
- The revised plan set now includes the wetland mitigation areas as shown on the exhibit plans.
- It is the applicant's responsibility to show that a proposed project is designed to protect the wetlands' ability to provide the above ecosystem functions. The applicant has not shown thus

- far that the significant buffer zone disturbance associated with the project will protect the values and interests of the wetlands on the property.
- They have not provided any information regarding the impacts of the significant amount of fill
 proposed for the project on infiltration and hydrology of the area that could directly impact the
 resource area.

RECOMMENDATION

- If the Commission feels this project cannot be conditioned to protect the resource areas, I recommend the following:
 - Close the public hearing
 - Issue a denial under the Wetlands Protection Act (MGL Ch. 131 s. 40) because the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations.
 - The proposed work in the buffer zone will adversely impact the adjacent Bordering Vegetated Wetland's functions and values, including impacts to the protection of wildlife habitat, protection of groundwater supply, and the prevention of pollution.
 - 310 CMR 10.00 states that "extensive work in the inner portion of the buffer zone, particularly clearing of natural vegetation and soil disturbance is likely to alter the physical characteristics of resource areas by changing their soil composition, topography, hydrology, temperature, and the amount of light received. Soil and water chemistry within resource areas may be adversely affected by work in the buffer zone. Alterations to biological conditions in adjacent resource areas may include changes in plant community composition and structure, invertebrate and vertebrate biomass and species composition, and nutrient cycling. These alterations from work in the buffer zone can occur through the disruption and erosion of soil, loss of shading, reduction in nutrient inputs, and changes in litter and soil composition that filters runoff, serving to attenuate pollutants and sustain wildlife habitat within resource areas."
 - 310 CMR 10.00 also states that "any project undertaken in close proximity to a wetlands resource area has a high likelihood of resulting in some alteration of that area, either immediately or as a consequence of daily operation of the completed project. The problem becomes particularly severe when Bordering Vegetated Wetlands are involved; inadvertent damage to these sensitive areas can easily occur and in many instances is irreparable."
 - Removal of vegetated buffers decreases filtration and increases the likelihood of pollution to the resource area as well as increases the potential for erosion.
 - Buffer zones dominated by trees or a mix or vegetative cover types, structure, and age classes are most effective in removing nutrients and sediment pollution. Removing the majority of the vegetation in the buffer zone greatly reduces these benefits and impacts the wetland functions and values.
 - The significant amount of fill being proposed for the project will increase the slope of the buffer zone, which will decrease the ability of the buffer zone to filter pollutants and reduce erosion.
 - The project does not meet 310 CMR 10.05(k) or 310 CMR 10.05(n).

- Issue a denial under the Fairhaven Wetlands Bylaw (Chapter 192) for failure to avoid or prevent significant or cumulative effects upon the wetland values protected by Chapter 192.
 - The proposed work in the buffer zone will adversely impact the adjacent Bordering Vegetated Wetland's functions and values, including impacts to wildlife habitat, groundwater supply, erosion and sedimentation control, water pollution control, and aesthetics.
- If the Commission feels the project can be conditioned to protect the resource areas, I recommend closing the public hearing and issuing an Order of Conditions for SE 023-1297, CON 19-051 for plans dated January 12, 2021 with the following recommended conditions:

Approve plan dated January 12, 2021

A. (Genera	al (or	nditior	าร

- 1. ACC-1
- 2. With respect to all conditions except_____, the Conservation Commission designates the Conservation Agent as its agent with full powers to act on its behalf in administering and enforcing this Order.
- 3. REC-1
- 4. REC-2
- 5. ADD-1
- 6. ADD-2
- 7. ADD-4b
- 8. ADD-4c
- 9. ADD-5
- 10. STO-4
- 11. STO-5
- 12. LOW-2
- 13. WET-1
- 14. The approval of wetland boundary shown on the plans shall not be extended by the issuance of this permit.
- 15. This order does not approve the location, construction, or any work related to houses, driveways, garages, or any other work on the proposed lots themselves. Each lot under the jurisdiction of the Conservation Commission shall need its own permit for any work undertaken on the lot.

B. Prior to Construction

- 16. A detailed wetland planting plan shall be submitted for the two wetland creation areas detailing vegetation present in the area, current and proposed elevations, the inclusion of plantings beyond wetland seed mix, and a monitoring plan. This shall be submitted for review and approval by the Commission prior to any construction.
- 17. The wetland creation areas shall be installed prior to any other construction. A qualified wetland professional shall oversee the wetlands work. A wetland as-built shall be submitted to the Commission upon completion.
- 18. The Conservation Agent shall be contacted to conduct a site visit for review of the wetlands work once it is completed.
- 19. CAP-3
- 20. SW-8
- 21. REC-3
- 22. DER-1

- 23. PCC-3
- 24. EMC-1
- 25. PCC-1
- 26. Prior to construction, the general contractor shall designate a construction staging area, located outside all resource areas and buffer zones. All construction trailers, portable sanitary facilities, material storage and overnight parking of equipment shall be in the staging area. The perimeter of the staring area shall be protected as necessary with appropriate erosion and sedimentation controls and the ground surface shall be protected with washed stone or another suitable non-erosive material.
- 27. SIL-5
- 28. SIL-7
- 29. SIL-9
- 30. SIL-10
- 31. MAC-4
- 32. Construction access to the site shall be designated prior to the commencement of the project.

C. During Construction

- 33. Only the vegetation that is absolutely necessary to remove is permitted to be removed.
- 34. All notes on the approved plans shall be in full force and effect.
- 35. Appropriate track pads shall be installed in the areas designated as construction entrances to and exits from the site.
- 36. STO-1
- 37. Storage of any construction materials, soils, fills, sediments, or any other substances or materials is prohibited within 50 feet of the resource area boundary and must be under cover and surrounded by appropriate erosion and sedimentation control to prevent contact with rainwater.
- 38. STO-3
- 39. MAC-3
- 40. MAC-7
- 41. All equipment shall be inspected regularly for leaks. Any leaking hydraulic lines, cylinders, or any other components shall be fixed immediately.
- 42. DEB-1
- 43. DEB-5
- 44. BLD-3
- 45. BLD-4
- 45. DLD 4
- 46. EMC-2
- 47. SIL-3 48. SIL-4
- 49. SIL-8
- 50. LOW-3
- 51. WAS-2
- 52. WAT-3
- D. After Construction/In Perpetuity
 - 53. REV-1
 - 54. The applicant will monitor the soil horizons and depths, groundwater levels, plant community composition, and plant community structure along transects to be established through consultation with the Conservation Commission using USACE or MassDEP field data sheets. Monitoring shall occur in March, June, and September for

five complete growing seasons following completion of wetland creation activities and it shall continue beyond that date if the wetland area is not established in accordance with the performance standards as specified in the approved planting plan.

- 55. RES-4
- 56. COC-1
- 57. COC-2

Perpetual Conditions

The below conditions do not expire upon completion of the project.

- 58. The wetland creation areas as shown on the approved plans shall become part of any future wetland delineation for any of the lots on the proposed subdivision.
- 59. Should any of the wetland resource areas on the property both existing and created be damaged in any way during the course of site preparation, construction, stabilization, or any other means related to this project, the damage shall be addressed and mitigated.
- 60. No liquid or solid chemical lawn fertilizers, pesticides, herbicides or chemical or petroleum dust control agents shall be applied within the area of statutory interest or anywhere that the surface drainage is discharged into an area of statutory interest. This condition shall survive the expiration of this Order, and shall be included as a continuing condition in perpetuity on the Certificate of Compliance. This shall apply to all of the lots on the subdivision plan and shall be noted in each lot's deed.
- 61. DER-4
- 62. Condition 60 shall also apply to each lot on the subdivision plan under the jurisdiction of the Conservation Commission and shall be recorded on each deed.
- 63. SW-2
- 64. SW-5
- 65. SW-9

E. Stormwater Management

- 65. The use of solid concrete sumps in the forebays is prohibited to avoid the creation of mosquito breeding ground and protect public health. The stormwater management systems shall be redesigned to comply with Massachusetts Stormwater Standards and the Massachusetts Stormwater Handbook, including two foot separation from seasonal high groundwater. This shall be submitted to the Commission for review and approval prior to commencing work on any stormwater management facilities.
- 66. SW-1
- 67. SW-3
- 68. SW-6
- 69. SW-7

Date: January 22, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: 3 Hidden Drive – Notice of Intent – DEP# 023-1342, Fairhaven CON 023-196

DOCUMENTS REVIEWED

Notice of Intent and associated documents

- Enforcement Order issued May 21, 2020
- 310 CMR 10.00
- Fairhaven Wetlands Bylaw (Chapter 192)

RESOURCE AREAS ON/NEAR SITE

- Bordering Vegetated Wetland
- Buffer Zone

- Bordering Vegetated Wetland: 10.55(4)
 - (a) work in a Bordering Vegetated Wetland shall not destroy or otherwise impair any portion of the BVW
 - (b) The ConCom may permit the loss of up to 5000 square feet of BVW when said area is replaced IF:
 - 1. The area is equal;
 - 2. The ground water and surface elevation are approximately equal;
 - 3. The overall horizontal configuration and location are similar;
 - 4. There is an unrestricted hydraulic connection to the same water body or waterway;
 - 5. It is in the same general area of the water body;
 - 6. At least 75% of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons; and
 - 7. The replacement area is provided in a manner which is consistent with all other regs in 310 CMR 10.00.
 - (c) The ConCom may permit the loss of a portion of BVW when;
 - 1. Said portion has a surface area less than 500 square feet;
 - 2. Said portion extends in a distinct linear configuration ("finger-like") into adjacent uplands; and
 - 3. In the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposal.
 - (d) No project may be permitted which will have any adverse effect on specified habitat sites of rare species

- (e) No work shall destroy or otherwise impair any Area of Critical Environmental Concern
- Buffer Zone General Provisions: 10.53(1) "For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. ... where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of [the Act]. ... The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work."

PROJECT SUMMARY

 The applicant is proposing to erect a fence as well as remove stumps and loam and seed the area.

COMMENTS

- The submitted NOI does not comply with the issued Enforcement Order nor does it address the items outlined by the EO. The applicant was to have submitted a restoration plan by August 19, 2020, not a filing.
- Revised plans and additional information are needed to address the conditions outlined in the Enforcement before significant discussion should take place.

RECOMMENDATION

 I recommend asking the applicant if they would like to request a continuance to a subsequent meeting to allow time to revise plans and submit additional information in accordance with the Enforcement Order.

Date: January 22, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: Jerusalem Road – Notice of Intent – DEP# 023-1343, Fairhaven CON 023-197

DOCUMENTS REVIEWED

Notice of Intent and associated documents

- 310 CMR 10.00
- Fairhaven Wetlands Bylaw (Chapter 192)

RESOURCE AREAS ON/NEAR SITE

- Coastal Dune
- Coastal Beach
- Buffer Zone
- Land Subject to Coastal Storm Flowage

- **Coastal Dune**: 10.28
 - (3) Any alteration of, or structure on, a coastal dune or within 100 feet of a coastal dune shall not have an adverse effect on the coastal dune by:
 - (a) affecting the ability of waves to remove sand from the dune;
 - (b) disturbing the vegetative cover so as to destabilize the dune;
 - (c) causing any modification of the dune form that would increase the potential for storm of flood damage;
 - (d) interfering with the landward or lateral movement of the dune;
 - (e) causing removal of sand from the dune artificially; or
 - (f) interfering with mapped or otherwise identified bird nesting habitat.
- Coastal Beach: 10.27
 - (3) Any project on a coastal beach...shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent or downdrift coastal beach.
 - (5) Beach nourishment with clean sediment of a grain size compatible with that on the existing beach may be permitted.
- <u>Buffer Zone General Provisions</u>: 10.53(1) "For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. ... where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of [the Act]. ... The purpose of preconstruction review of work in the Buffer

- Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work."
- LSCSF General Provisions: 10.24(1) "If the issuing authority determines that a resource area is significant to an interest identified in [the Act]...,the issuing authority shall impose such conditions as are necessary to contribute to the protection of such interests."

PROJECT SUMMARY

 The proposed project involves construction of stormwater retrofit practices (bioretention basins) at four sites along 1350 linear feet of Jerusalem Road, from the Torrington Road intersection to the west end of Jerusalem Road, which ends at New Bedford Harbor, with the primary purpose of reducing bacteria and nitrogen into Buzzards Bay by implementing the proposed stormwater retrofits.

COMMENTS

- This project would be a marked improvement for the resource areas. The coastal dune is currently interrupted by the pavement at the end of Jerusalem Road. This project would remove and restore that section of dune.
- The total impervious area will be reduced and stormwater treatment increased.
- Question for Applicant: What will happen with the pipe outlet on the beach at the end of the road?
- The applicant has outlined compliance with all of the applicable performance standards as well as stormwater management standards.

RECOMMENDATION

 I recommend closing the public hearing and issuing an Order of Conditions for SE 023-1343, CON 023-197 for plans dated January 2021 with the following recommended conditions:
 Approve plan dated January 2021

A. General Conditions

- 1. ACC-1
- 2. With respect to all conditions except_____, the Conservation Commission designates the Conservation Agent as its agent with full powers to act on its behalf in administering and enforcing this Order.
- 3. REC-1
- 4. REC-2
- 5. ADD-1
- 6. ADD-2
- 7. ADD-4b
- 8. ADD-4c
- 9. ADD-5
- 10. STO-4
- 11. STO-5
- 12. The noted limits of work on the approved plans shall be the limits of work for the project.

- 13. Work within the flood zone shall comply with all federal, state, and local flood zone regulations.
- 14. WET-1
- B. Prior to Construction
 - 15. CAP-3
 - 16. REC-3
 - 17. DER-1
 - 18. PCC-3
 - 19. EMC-1
 - 20. PCC-1
 - 21. SIL-5
 - 22. SIL-7
 - 23. SIL-9
 - 24. SIL-10
- C. During Construction
 - 25. STO-1
 - 26. STO-3
 - 27. MAC-3
 - 28. MAC-7
 - 29. All equipment shall be inspected regularly for leaks. Any leaking hydraulic lines, cylinders, or any other components shall be fixed immediately.
 - 30. DEB-1
 - 31. DEB-5
 - 32. EMC-2
 - 33. SIL-3
 - 34. SIL-4
 - 35. LOW-3
 - 36. WAT-3
- D. After Construction/In Perpetuity
 - 37. REV-1
 - 38. Monitoring reports regarding the success of the dune restoration shall be submitted to the Commission annually for three years following completion of the restoration.
 - 39. COC-1
 - 40. COC-2

Perpetual Conditions

The below conditions do not expire upon completion of the project.

- 41. SW-2
- 42. SW-9
- E. Stormwater Management
 - 43. SW-1
 - 44. SW-3
 - 45. SW-6
 - 46. SW-7